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From the Editor's Desk

Jamnalal Bajaj Institute of Management Studies (JBIMS) was founded in 1965 by the University of Mumbai. The philosophy which has inspired the vision and approach of JBIMS since its inception is that of cultivating management thinkers and innovators who are deeply entrenched and firmly rooted in the Indian soil. This has been underlying theme of JBIMS for 50 glorious years as it launched various educational, research and development activities for the advancement of management education. The institute has constantly focused on inculcating an action- oriented approach and driving the need to constantly innovate and reinvent in order to sustain in a dynamic business environment.

With a view to foster innovation and research, JBIMS has taken yet another leap forward with the Research Journal that will be published twice a year. Driven by mission of quality education and research, the Journal will attract the brightest of researchers and academicians to share and contribute their research and experience. Following the old tradition we are presenting some of the papers which were presented in International Research Conference, 2015. This research journal aims to create greater collaboration and sharing of academic understanding. The Institute seeks to provide excellence in management education and research by way of this journal-JBIMS Spectrum. The Journal aims to become a wealth of world-class research and analysis across the entire spectrum of management education. By way of our alliances, we hope to create a rich compilation of management knowledge that will benefit our readers which comprises industrial stalwarts, researchers, academicians and the student fraternity.

We, thereby, invite all research scholars, academicians, management teachers, practicing managers and students to use this golden opportunity to take their research to the vast network associated with JBIMS and enable us to create a portal for the transfer of high-quality research-driven information.

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Disclaimer:

The research paper titled "Need For Transformational Change In Indian Management Education" authored by Dr. Kalpana Agarwal was presented in the International Research Conference 2014.

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SUSTAINABILITY AND EVOLUTION OF BUSINESSES BY CHANGING EXISTING BUSINESS PRACTICES FOCUSING ON QUALITY IMPROVEMENT BY REDUCTION IN COST

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ABSTRACT

When a business decays or disrupts by any cause, the remaining businesses in that market take this as a learning lesson and analyze their own precarious position. In order to prevent themselves from being disrupted and or decayed from external or internal threat, they start to examine their condition, leading to innovating solutions. These solutions could be in any form for example: path-breaking technology, new business model, changing the way the business is currently functioning; thus paving way for new best practices. This then leads to the evolution of not only the business but the market as a whole. The paper stresses that transformation of markets is a gradual process and the fundamental unit of this transformation is a twofold approach wherein business needs to analyze itself not only from outside but also from inside.

The paper aims to highlight disruptive business practices and provide solutions for the same to transform the Business. A few such existing disruptive practices identified by us are: need of heavy investment to improve quality, need of superior technology to have a competitive edge, extremely heavy emphasis on training to improve skillset of employees, hierarchal approach towards defects/ problems. The paper aims to provide solution to these disruptive practices in a hyper-competitive market, by following a philosophy of Quality Improvement by Cost Reduction. The research study of application of this philosophy, to create transforming business practices is undertaken for the following sectors: Bag Manufacturing, Textiles, Silver Utensils Manufacturing, Ethnic Wear, Sweet Areca, Garment, Advertising Firm, Pulse Milling and Toll Booth. The research carried out pertains to real time problems and the results obtained after innovative simple solutions support our claim.

KEYWORDS: Quality Improvement, Re-generation of Best Practices, Disruptive Business Practices, Cost Reduction

1. INTRODUCTION

The traditional approach is gradually shifting from product centricity to customer centricity. This is a crucial, because a customer centric approach for a business not only delights the customer but changes the entire business model. The change by such an approach can be in any form viz. new operating model, reduction in employees or a new operating process altogether. This helps businesses acquire what is termed as 'Quality Results', which simply means correct results.

The primary objective of any business is wealth maximization; to put it in other terms the business should have sustainable sales which covers its costs (fixed and variable). Elaborating on this point further from an operations perspective the losses should be minimal on the product. These losses are given various names; defects, rejects, reworked outputs, non-conforming pieces etc. All essentially mean the same: the output or the final product is not as per prescribed standard and hence that needs to be either thrown away that is rejected or if the defect is controllable it can be corrected that is nothing but reworking.

This brings out another aspect called cost of Quality. There are three costs of quality namely: Cost of Rejection, Cost of Rework and Cost of Appraisal. The cost of rejection is the highest as the final output is rejected or scrapped and is a total loss as material and labour have been invested in it. Rejection can occur due to manual error or machine failure or an external cause. The objective is to minimize the human and machine errors/ failures in order to improve the process thereby improving the final output. Similarly the cost of rework needs to be minimized in the short run and eliminated in the long run. This outlook of improving the operating process can either be by improving the existing process or completely revitalizing the current process. This approach can either disrupt the existing business practice thus making way for a better evolved business practice altogether.

2. ANALYSIS OF THE STUDY AND APPLICATION OF NEW SOLUTIONS

An order (customer order) is said to be fulfilled by three parameters majorly: Quality, Delivery andCost.
Quality meaning the output should meet all specifications as agreed on by the customer. Delivery has two aspects the quantity of delivery and the time of delivery; meaning the output must be delivered in the full quantity and on time abbreviated as OTIF. Cost is one of the most focused on aspects because it is only through money or investment that actual realization happens. Cost is an integral part of not only the final selling but also each and every other process involved to fulfill the order. All this culminates to Quality, for example: if the final order is delivered on time

and in full quantity it satisfies the delivery criteria and also the quality of delivery happening on time and in full is the highest. This can also used as a performance evaluation metric as:

Quality of Delivery for a given time:
((Number of on time deliveries ÷ Total Number of Deliveries)×100) + ((Number of in full deliveries ÷ Total Number of Deliveries)×100)

Following a similar ideology the paper focuses on the aspect of quality in all performance areas of: Productivity, Cost, Delivery, Sustainability and Morale and evaluating these metrics from a Quality perspective.

1. Sudhir Traders

A company included in the study, deals in the distribution of agricultural, industrial and domestic machineries, pipes, wires and cables, panels & switchgears , cement ,fiber and polycarbonate roofing sheets. The problems that they faced were toolbox, labeling on the products to be dispatched, storage and transportation. Also at times different orders were received by the customers.

For a distribution company having all materials that are required for packing and distribution organized and at hand is of prime importance along with making sure the right delivery is made to the right customer.. A delay in finding these materials could lead to a delay in the final dispatch of the order. A delay in dispatch would lead to a late delivery.

1.1 Toolbox Problem, Labeling, and Storage:

The Company faced problems for finding the appropriate material needed for packing and dispatching the orders. This led to a lot of delay in the shipment of the order. Thus the company faced a problem of Deliver on the time aspect even though the delivery was in full. It was usually focused that the Transportation problem is the biggest problem, never thought that all the problems are inter-related problems culminating to a delay in the shipment which is the final transportation issue. However a change in approach to the problem was developed. The solution consisted of an integrated approach, instead of viewing four individual problems it was seen as either of the issues could lead to a delay in the final shipment and wrong delivery. Thus it was made sure that whichever process came next only the correct output would be passed to the next one.

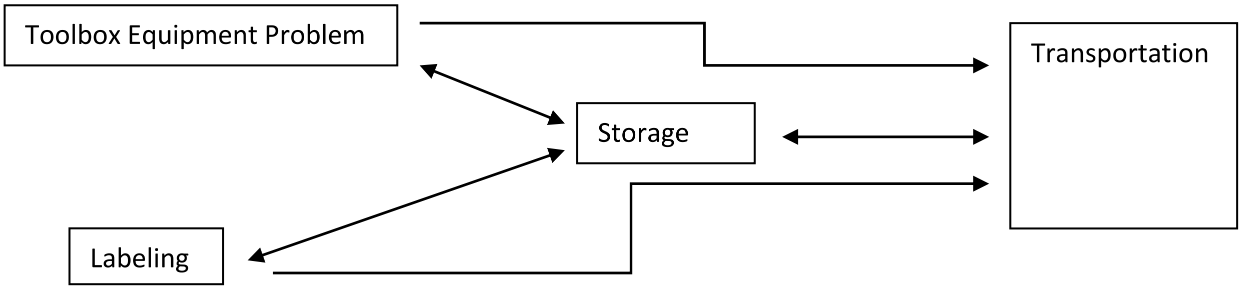

Fig1.1 The chaotic nature of the existing problems

The conceptual solution to this problem was as:

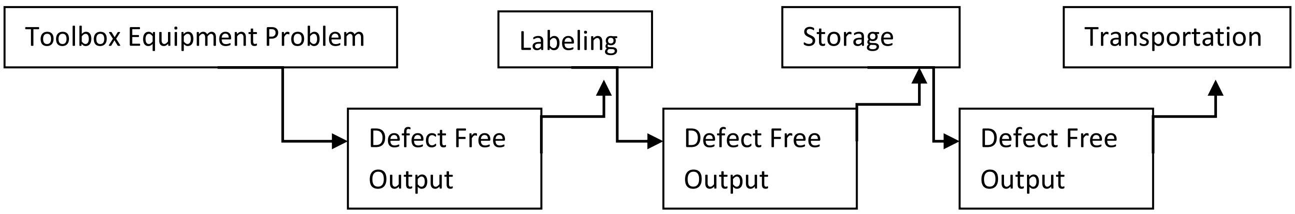

Fig1.2 The conceptual objective of passing defect free output to the next stage

A change in the outlook towards the problem helped the company. The placement of toolbox and all tools in their allocated positions reduced the time for finding the tools and helped in timely packaging of the deliverables.

The next challenge was the mixing of orders, in order to eliminate this problem the packed orders were labeled and stored according to date of delivery and not as per size. This gave a first in first out (FIFO) form of storing. This enabled timely and correct delivery. In order to store the packaged orders the vertical space was utilizes along with the existing horizontal space with the help of a lift. The usage of the lift also enabled other advantages. These are described below.

Earlier Situation

Managing of 3 warehouses caused a lot of problems mentioned below.

Problems faced

A) Dispatch vehicle got stuck in jam and therefore same day delivery of new orders received during the same day is not possible

B) One person has to go again & again to transport in order to give bill and challans and hence lot of time was wasted along with Motion wastage

C) Customers are not satisfied due to one day late delivery

Solution and Situation after implementation of solution

A) Same day delivery so happy and satisfied customers

B) Single warehouse to be managed and dispatch done through there itself

C) Putting computer and printer in warehouse saved time as bill and challans can be sent from office to warehouse and the warehouse in charge can print them and dispatch there itself.

D) Rent out of the rest two Warehouses with an additional income of Rs.70000 per month increased

2. Baggon

The company is into wholesale trading of all kinds of bags and the business is based out of Hyderabad. The clientele includes most bag retailers from Telangana and Andhra Pradesh. They also cater to few clients from Maharashtra and Karnataka.
For a company dealing in bags, a rejection of any type in the final output is a loss. The aim was to reduce these losses and increase operating profit.

Earlier Situation

Most of the products are sourced from workshops (over 80 of them employing over 6000 workers and supplying us on order basis). Multiple locations and job work contracting ensured that we had a very high defect rate, 9% of every lot sold and being returned the customers. However the customers were satisfied with the pricing of the bags.

Solution

The earlier approach was to let the workshop employees buy the raw materials. As there were a few workshops the consistency of the procured raw material was different. After analyzing the defects it was observed that most of the defects are due to different quality of raw material. Thus it was decided that the main company procure the raw material directly from the manufacturers with given quality specifications. Procured materials were done with specific requirements and this was then standard across all other workshops.

Current Situation

Most of the manufacturing defects pertaining to quality were resolved. A drastic improvement from 9% defects to 3%, in a span of less than 2 months.
Due to this new and transformed way of procuring the raw material the company was in a position to place bulk orders and leverage discounts on these orders.

3. Padmavati Group of Textiles

The company is into manufacturing of Textiles namely Fabrics for Shirting and Suiting, Handkerchief, Dhotis and Men's Ready to Wear Garments; having a total of 6 in house manufacturing units with 198 weaving machines. The fabric is being outsourced.

Earlier Scenario

There was 1.5% wastage of yarn and in spite of a satisfactory production schedule a lot of the workers were idle.

Solution

Initially on severe brainstorming sessions a possible solution was far from being sketched. Thus

the approach was changed. This new approach adopted by the company made sure that there was a thorough understanding of the process. It was then observed that a minor change in the precision setting would save yarn. This resulted in a wastage reduction by .03% which is 16lakh INR annually.
The problem of shop-floor employees being idle was then solved by reducing the number of prins (yarn rolls) from 30 to 22, leading to easy flow and reduced piling up.

Current Situation

Due to reduction in number of prins, the WIP build up is reduced compared to the situation of 30 prins. This saves 20 lakh INR per year. Thus there was a profit of 36 lakh per year with no cost involvement.

4. Aasopalav

The Company deals in retail selling of specific ethnic wear and make to order Indian wear.

Earlier Scenario

Due to shortage of required designs, colors and quality of sarees during times of the year, the company found advance purchase of the material as a viable solution as this ensured bulk placement of order which guarded the company from price fluctuations and enabled price discounts and no delayed deliveries of final customer order as the stock was already present. However this led to some disadvantages as:
Advance buying of stocks leading to locking up of capital
Using the storage space during off-season
Fading of the material color sometimes due to prolonged exposure to atmosphere

Solution and Current Situation

The solution was brought about by changing the way of looking at the existing situation and bringing about a change in the way of thinking, thereby creating space for an evolving business practice.
1. It was suggested to send the goods selected every 20 days in 2 or 3 installments based on the quantity of goods selected.

Advantages:

A. Billing would be as per the dates of the invoice, therefore no burden of payment as the amount would be distributed in 2 or 3 installments. Hence the capital was not locked up
B. No problem of overstocking
C. Space saving
D. Less risk of goods getting damaged

E. Same day payment to suppliers thereby availing an additional 10% to 15% discount on the sarees and lehenga cholis

5. Shreya Kalwadia

The individual's company is into manufacturing of sweet supari/sweet areca along with real estate and hotel business.

Problem

Due to daily trading the records for current and saving account were kept haphazardly. This led to difficulty in finding the records when needed. There were various pass books lying all over in the office in an unorganized manner. Due to various accounts of every member in different banks it was difficult to keep a check on the balances in the accounts.

Solution

A simple concept of checking quality at source was applied. This led to the use of Excel and differentiating between current and savings account. Then a further segregation of expenses and incomes was done. One of the expenses was interest to be paid to banks which was 11%. Further it was noticed that the bank gives an interest of 4% on Savings account and no interest on current account. Since the current accounts are only accountable for day to day transactions. At the end of the day huge amount of cash balance was left idle in current account which gave no interest so this amount was transferred to Savings account and this amount was utilized to pay off the bank interest.

Situation After

After creating this process of keeping a regular check through excel sheets record on the balances of current and savings account. The transfer of unused funds into savings account converted the expense as an income.

3. CONCLUSION

The paper focuses on the ideology that in order to transform the market, companies need not wait for another company to fail and then take a lesson from their failure. The real life cases cited above show that small changes in the existing way of operation lead to bigger changes in the final run. These changes lead to a snowball effect, thereby giving birth to a new business practice. One of the ways of changing the outlook towards existing business practices is by a way of looking at it from a Quality perspective. Quality as a metric forms a superset for all other metrics. Evaluation of the other metrics based on Quality of itself, gives an innovative approach to improve the existing process and innovate in areas previously unthought-of. This approach highlights areas needing immediate attention and thereby paving way for an altogether new approach. Cost of poor quality is 20% of annual sales revenue, this poor quality arises due to traditional business practices which keep on going unknowingly. These business practices cause to the disruption of businesses. Through this paper we stressed on the importance of checking Quality at the source and thereby reducing the poor quality output. This is one such transforming business practice of quality at source improves quality and lowers cost.

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I HAVE A DREAM (PROFECTUS DESIGN): THE INDUSTRIOUS FIX TO THE WORLD

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ABSTRACT

The division between the ideal and real, along with the widening gap between the economic strata is consider the evidence for the collapsing world models. The proof of concept is supposed to lie in the multiple economic meltdowns we have observed. Capitalism and its invisible hand, though created in a way to be derived from and delivering the progress of humanity, with underlying corruption or myopic strategies has had diluted outcomes. The solution to the overall world model cannot be envisioned just in the economies, when the world is divided into supposedly independent sectors of Society, Industry, Education and Governance. The sectors at closer inspection are not so independent but are cross functional and interdependent. A solution to global problems will have to span all of these. One of the options that primarily is an Industrial Solution but spans the rest of the sectors as well has been explored in the paper. The paper discussed the structure, objective and operation of such an organization, while also analysing the potential outcomes in a theoretical model.

KEYWORDS: Agile PPP, Holistic Wealth Utilization, Incorporated CSR, Left-Shift Incentivization, Social Reengagement, Welfare Organization

1. INTRODUCTION AND OBJECTIVE

The construct of law and recognized societal values provide a framework for what is expected of the world. It is assumed that the world by its own selfish nature will provide for the general growth and progress of human societies across globe. However, the corruption of the ideals leads to imbalance in the economies. Coupled with the acute pace of world, a little imbalance goes a long way. It is compounded further yet by the fact that we believe in segregated solutions and/or ignore the linkage of the different areas of world model. We believe that world of industries, education, governance and society have little correlation and a change in one has negligible potential to affect other, unless intended specifically for that purpose. We have introduced Corporate Social Responsibilities (CSR) in Industries to affect society. We have introduced Vocational Curriculum in Education to affect Industries. We have introduced Educational Policies, Industries Acts, Labour Laws and Civil Procedures in Governance to affect each of the other walks. However, what we try to ignore is that human society is the source of all thoughts and labour for every other walk. Education feeds back into the quality of that thought and labour and thus affects all. Industries are built around the objective of motivating the society to utilize those thoughts and actions for progress of global human civilization. Governance is developed to harness the collective of individual thoughts and actions for providing a framework and economies for the other walks.

Each of the systems is an integral part of the other thus a solution for one has wide reaching implications for others. It is like when we accuse a millionaire of buying an expensive car instead of donating to charity, we forget that the car is the result of an ongoing economic venture utilizing labour from several industries thus contributing to the wealth and happiness of many. These will be left probably homeless and in need of the same charity, which the money will go to instead but that way the whole economy collapses because of loss of value and incentive to labour; as, a large part of the value is from labour and talent instead of any intrinsic value for any natural element. Thus, a clear distinction has to be made in solutions for long-term human survival and a short-term fix through charities and other similar means.

2. DEFINITIONS AND ABBREVIATIONS

This section deals with familiarizing and explaining the key terms and ideas developed for this model of operation and their objectives.

Agile Public Private Partnership (aPPP) is a form of Public Private Partnership (PPP) model that inculcates in its behaviour the basic principle of agility into the industry government relations. Agile is the term that is used to explain the concept of speed of response to change. The ideals behind all agile organizations is to reflect in the shortest period of time possible a response to change in the internal and external factors affective objectives and revenue of the organization. If the same concept is to be applied to private public partnerships, we do not need to build an organization to deal with such partnerships but to build a collaborative model and joint list of objectives. Private Public Partnerships are based on two main principles:

1) Private sector provides with the latest and most competent resources in terms of human and financial operations for the achievement of a public goal
2) Public Sector provides the partnership with a faster lane to revenue and operations for the industrial complex.

With a shared objective list for public goals and private achievements, a PPP can achieve faster execution of concepts and better efficient operations, all the while conforming to the ideals of industry for human progress and comfort.

Holistic Wealth Utilization is a pedagogy towards all-inclusive utilization of Global Wealth or Value. Global Wealth or Value is essentially based on the available global resources, which are constant, to which innovation, and transformations provide value additions. The ultimate redeemable source of any currency, which counts as wealth, is the natural resources or a transformed version of the same. Thus, the wealth of the world is essentially constant while leapfrogging, non-periodically and atypically, with innovation and transformation of resources and does not depend upon the amount or denomination of currency. The later factor only contributes to the redistribution of wealth. This redistribution of wealth is the incentive used by capitalism; however, the same in blind pursuit and corruption chokes the progress of humans as a civilization and results into global issues. This however does allow by means of reinvestment in philanthropic and scientific endeavours for progress and solutions. The approach that allows for all wealth, while free-flowing, to be utilizable for all-inclusive growth is Holistic Wealth Utilization. It essentially means an approach to generation of wealth from or inclusively spent for the global goals and devoid of the concept of pursuit of wealth for its own sake.

Incorporated Corporate Social Responsibility (iCSR) is ideally the organizational strategy that involves Corporate Social Responsibility (CSR) as a key business objective and thus derives plans and operation parameters accordingly. CSR is defined either as corporate citizenship compliance to law or as active participation into the social action and movement. Though in some countries CSR contributions in the form of action or donation towards social good is mandated, in most it is not. In most counties it is not even mandated to follow citizenship code by organization and they can chose to ignore or loop hole their way out of it. The fundamental characteristic of iCSR is that it incorporates the action towards social progress into the values, objectives and strategy of an organization, making it impossible to consider its goals completed or count itself successful without achieving the social progress initiatives. Thus, iCSR enables an organization to not just comply with laws, but be morally and socially active and pursue business with an ethical and active perspective towards human progress.

Left-Shift Incentivization involves incentivization by means of luxury and not necessities, and by means of progress shifting the scales of necessities to engorge luxuries while generating new luxuries. This way we are able to safeguard basic right of humanity as encapsulated by UN charter (or other moral and ethical studies and charters) e.g. Life, while keeping intact the critical success factor of capitalism i.e. Incentivization. This also ensures that we keep track of progress not just by being able to provide basic necessities to all but also by recounting necessities that were once luxuries. For Example, electricity that is still considered a luxury in many regions of the world is already being considered by many in the developed nation as a basic necessity.

Social Reengagement is the strategy of engaging economically unsustainable classes of society into economically enabling activities. It allows for the complete society to engage in productive efforts by re-enabling those that are economically or physically challenged and are thus find it difficult to contribute to societal progress. It is considered that unemployability more than unemployment is a problem in the world and it should be sufficient proof that there are many engaged in non-productive work while productive efforts towards human progress seem insufficiently handled. Engaging all classes of society in some form of productive effort or rechannelling the efforts from unsustainable classes to productive activities can result into eradication of poverty, and establishing a better pace to progress. The challenge towards Social reengagement arises from identification and pairing of individuals and suitable productive tasks. Many organizations are already on the path to organize such efforts under there programs, like employing disabled and homeless towards self-sufficient Social Benefit Organization’s efforts. As technology progress it should allow us to complement the abilities of individuals to suitably support such objectives towards 100% social reengagement.

Welfare Organization is the concept of enabling welfare state principles within an organizational values, mission and vision. According to T.H. Marshall, the modern welfare state may as well be described as an economic policy mix democracy, welfare, and capitalism. In its essentials it is a slew of economic policies that hold the government responsible and liable for protection and welfare of all its citizen’s needs. Expanding the definition a bit we can replace the government with the leaders and broaden the concept to include organizations and its members. Welfare organization can be restated as the collection of organizational policies that ensure the protection and welfare of the basic necessities of all its members, current or retired. It can ensure the same by reengagement principles as far as possible or by simply ensure the capability for social self-sufficiency beyond engagement.

3. ORGANIZATION: STRUCTURE AND APPROACH

The solution envisioned brings in the folds of single organization design the concept of wealth creation and incentivization responsible for the continued success and value derivation from capitalism, the concept of welfare state from socialism, and research and vision for collective progress of human race from academic and governance imperative. The following section discusses the structure and operational approach to the organization. The objective of the organization is to achieve collective inclusive progress for human populace across globe. The entire organization can be summarized by it principle of luxury wealth generation and investing it all in its two objective: 1) provide necessities to the global populace, 2) research and execution of means to achieve human social and scientific progress. The Organization is divide into five cross-functioning departments: High-rise Department, Block Department, Tomorrowland Department, Hive Department, Management and Collaboration. The individual operations and imperatives are discussed in the respective sections.

3.1 High-rise Department (Wealth Creation)

Every industry requires a steady profit stream for long-term survival and achievement of its goals. This department is responsible not just primarily but entirely for the revenue stream of this entire organization. The objective of the High-rise Department is to generate wealth for the organization by leveraging luxury. This department produces luxury items for those that have wealth enough to invest in them. The overall responsibilities of this department can be summarized as follows:

1. Research and development of standardised and personalized luxuries
2. Marketing and sales of the luxury items
3. Management of third party engagement for luxury production and sales
4. Research into technology and methodologies for social re-engagement and their implementation within the organization.

3.2 Block Department (Welfare Protection)

Like Wealth department being responsible for revenue stream this department is entirely responsible for utilize portion of the revenue allocated to it for the first objective of the organization i.e. provide necessities to the global populace. It is responsible for identification of necessities globally and allocation of its funds to prioritised list of actions that can be taken as short term objectives for providing the same list of necessities. The re-evaluation of necessities from time to time is necessary to follow from the idea of left shift Incentivization. The overall responsibilities of this department can be summarized as follows:

1. Research and development of welfare standards and financial vehicles for the same.
2. Identification of its beneficiaries and provisioning of the necessities to the same
3. Management of third party engagement for welfare implementation
4. Research into technology and methodologies for left-shift incentivization.

3.3 Tomorrowland Department (Future Engagement)

This department is responsible for second objective of the organization i.e. research and execution of means to achieve human social and scientific progress. The concept revolves mostly around a think tank and lobbying group approach to problem solving for global agenda. This is the core group that serves as proactive solutioning team for global blockers to human progress by applying industrial thoughts and collaborating with governments on related policies and policy research. The overall responsibilities of this department can be summarized as follows:

1. Research and development towards holistic wealth utilization and iCSR.
2. Research into and proliferation of aPPP, social reengagement and left-shift incentivization beyond organization.

3. Management of third party engagement for its objectives.

3.4 Hive Department (Thought Leadership)

This is the department responsible, much like and executive board for providing guidelines, leadership and policies for engagement both internal and external and execution of ideas. This team, not unlike executive leadership of an organization is responsible for determination of vision, mission, stratagems, policies and other thought leadership feats and tasks. The overall responsibilities of this department can be summarized as follows:

1. Determining Vision and Missions and generating short term and long term strategies with policies and budget guidelines.
2. Determining Collaboration and Reengagement Parameters for the Organization.
3. Devising ways to incorporate iCSR and Welfare Organization principles into the organization
4. Devising strategies for success of individual departments in all market situations.
5. Ensuring strategic fit across Departments for Organizational Goals and Vision.

3.5 Management

This department is responsible for the management aspect of the entire organization. Technically this department is responsible for procurement and management of all resources including the financial, physical and human resources and capabilities of the organization. The overall responsibilities of this department can be summarized as follows:

1. Budgeting, Accounting and Charging for all departments and towards all partners of the Organization.
2. Procurement of assets and resources and their management and allocation.
3. Due Diligence of all partnership opportunities.
4. Ensuring operational excellence and compliance with internal, industry and legal guidelines and objectives.

Apart from housing the legal and finance teams this team will require three major subunits which are explained in the following subsections.

3.5.1 Investment and Control Management (ICM)

ICM Sub team of Management department will be managing the Investment and Control Management fund, responsible for procuring and managing level of external investment and control. If an external seeding is required, it is to be done without receding control of the organization and with a pre decided buy back date with a minimum premium to investment. ICM Fund will ensure that the organization has enough money to buy back these shares on the assigned date.

3.5.2 Risk and Recovery Management (RRM)

RRM Sub team of Management Department will be responsible for Risk and Recovery Management fund that will accumulate the risk and continuity management and crisis salvage amount for the organization. This will be a capped fund, which will accumulate to a maximum amount only as decided by the leadership department.

3.5.3 Expansion Management (EM)

EM sub team of Management Department will be responsible for managing all profits exceeding the required amount in the other departments and funds. The new fund that will be created out of this excess will be utilized for expansion of the organization in breadth, depth or geography as decided by the Leadership Team.

3.6 Collaboration

This department is responsible for securing internal and external collaboration both documented and undocumented and managing all resources and records pertaining to the same. The overall responsibilities of this department can be summarized as follows:

1. Research and development of third party engagement for all organization departments
2. Research and management of aPPP standards for organization benefits and beyond in collaboration with Tomorrowland department.
3. Research into marketing and communication principles for organization benefits.
4. Handling all external communication of organization import and its transparency and perception management objectives.

4. ANALYSIS AND CONCLUSION

In this section we analyse the benefits and limitations of the paper and the concept discussed in it. We also deal with possible predictions that can be made from public data and models available for such organizational and market analysis.

4.1 Qualitative Pointers

The luxury department is the only source of revenue and profits in the organization, hence, to maximum that same, the department can engage in auctions and resale of luxury goods produced and acquired. It is also the department's responsibility to ensure minimum cost and higher margins without violating public trust and organizational ethics. Since the department is engaged in research to produce luxuries, it will bear traits similar to any product based organization. It also minimizes costs of both itself and block department by ensuring maximum possible reengagement at considerably above the basic necessity scale. Block department ensures welfare organization principles and immediate global remediation by identification and engagement of beneficiaries, channels and partners for holistic wealth utilization. It also supports left shift incentivization research and execution within the organization. Hive department serves as a think tank collaborating with external agencies with help from collaboration department to ensure that all internal principles can be proliferated externally. It also serves as the principle within the organization for all research into eradication of defined and targeted global problems. Leadership department is to ensure all principles, guidelines and values for individual departments keeping in mind their strategic fit into the vision and mission of the organization. It is also to ensure the execution, re-evaluation and redefinition of the vision and mission and strategies thus ensure the progress of the organization with times. Management department is to ensure the seamless operation of the entire organization along with its internal and external compliance thus enabling organization to ensure it achieves its goals in terms of aPPP, holistic wealth utilization, welfare organization, and other directing principles. It is also the measuring section for these principles being achieved effectively. It is further responsible for expansion management and other funding control. Collaboration department is an approach to establish a base of thought leadership and research into the collaboration methodologies for both internal and external purposes. It is to also ensure that the research is not purely of academic nature but finds its way into usage by the organization and any partners, or the world at large as applicable.

4.2 Quantitative Pointers

In this section it would be prudent to discuss a few suggestive quantitative principles for organization like fund caps, etc.

1. ICM Fund is an entity created to manage external investment. It is to hold up to 10% over the market valuation of the organization's equity, till all stocks have been bought

back. All remaining funds should be transferred to RRM and EM respectively till their respective cap value is exhausted.

2. For RRM Fund, an ideal cap amount can be considered for example as 135% of the yearly organizational expenses. It allows for both short term and marginally long term recovery efforts from both natural and market risks and events.
3. EM will not have any cap value as expansion at different levels may require different amounts and the more capital available for expansion, the more growth organization can experience. However, the limit will be placed on leadership decision to balance the funding between EM and Block Department.

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CASH LESS AGRO-AUCTION PLATFORM FOR INDIA

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ABSTRACT

Strategically, demonetization was intended to flush out black money and take care of fake currency in the Indian monetary system. It may prove effective and beneficial in curtailing or limiting certain menaces but on the other side it has affected Indian farmers who were about to reap the fruits of a good harvest post the two years drought scenario. The economy almost came to a standstill. The consumers had cash in their bank accounts and farmers were ready with their produce but transactions could not take place due to the instrument called cash. The decent way out, is cashless transaction that can be a lasting solution.

In this paper, attempt has been made to discuss the strategies available to both the buyers and producers in the game of agricultural marketing. The paper contemplates the implementation of dynamic 'Auctions and Biddings', which would be beneficial to all stake holders by elimination of the dominance of intermediary and making the trade transparent. It also discusses the dynamic models for online biddings. The only hindrance may be due to the availability of electricity, high security in e-transactions and above all the acceptability of modern technology among buyers and sellers.

KEYWORDS
Demonetization, Agro-Auction, Cash-less economy, e-auction

1. INTRODUCTION

Demonetization was a strategic move of the government to cleanse the current economic system by discarding black money and fighting corruption at a national level. While this may prove to be effective and beneficial in the long run, the shorter repercussions do not reflect a positive impact on various sectors and economy. One such sector that faced quite a standstill is that of India's Agricultural and food markets.

Right from the *mandis* to the neighbourhood grocery store, major transactions were cash only providing livelihood to almost half the population right from the farmers to the local vendors and all the agents in between. This year was supposed to be more promising to the farmers with a good produce post the two years drought scenario. The consumers have cash in their accounts and farmers are ready with their produce but transactions could not take place owing to the instrument called cash. In the crop year 2015-2016 a total of 252.23 million tons was produced (Sally, 2016) and total number of farmers are estimated to be around 600 million accounting for 50% of the population. Thus, upgrading to a cash-less trade system for the industry which provides maximum contribution to the economy and employs a huge population of the country is a need to prevent it from reaching to a standstill situation.

There are 7500 plus mandis in India. There has been a continuous discussion on the need to modernize these *mandis* and bring them under one pan-India market system than operate at a State level or even smaller ones operating at district levels. (Srinivasan, 2016; Dey, 2015; Kaul, 2013) With cash being stuck in accounts and flow almost close to nil, the need of modernized mandis should be realised at the earliest for a smooth moving economy.

Auction is a very good mechanism for establishing prices and market allocations. This leads to the fact that prices and the allocations will vary based on the nature of the auction. Pricing in auctions most often reflects the buyer's purchase price schedule which is adjusted for the uncertainty of the supply price schedule rather than in the case of buyer-seller interactions. (Schrader & Henderson, 1980). There are studies suggesting that such an arrangement guarantees a higher price to the supplier than the traditional bargaining process (Smith, 1964). The agricultural market operates on this very auction system. Auctions ae structured in a way that assures the occurrence of a sale. As long as a group of buyers can be found, the process confirms a price establishment for goods irrespective of how rare they might be. Thus, auctions prove to be very beneficial for goods with irregular or uncertain supply such as agricultural commodities (Schrader & Henderson, 1980).

In this paper, strategies available to the farmers as well as consumers (i.e. the buyers and sellers) will be discussed. These strategies will be in-line with the trading and auction process that is followed between farmers and buyers in the mandis and small town markets, but cash-less auctions will be discussed, as a solution to tackle current lack of cash flow.

2. EXISTING PROBLEM

Not all farmers are facing the back lash of this crisis as some of them have adopted cash-less process by implementing cheque payments. Some farmers from Karnataka, Andhra Pradesh and Odisha have accepted cheques from state agencies and more such additions are expected. To add to this amongst the Kisan credit cards that have been issued to the farmers, many of them are ATM enabled debit cards (Srinivasan, 2016).

In an attempt to go cash-less certain reforms and steps have been taken by the government like the online portal for electronic trading National Agricultural Market (eNAM). In 2016, this portal was launched and approximately 250 mandis are registered and currently operating on this portal while another 350 to 400 will be registered by 2018. eNAM installs the softwares for online bidding at various mandis but the entire auction process is not necessarily cash-less. Mandis are still live with the physical presence of these farmers and bids are obtained both from the online portal as well as from bidders who come to buy products off the mandi physically. The farmer gets to choose the best bid amongst the various online and physical bids and make a sale accordingly (National Agricultural Market, 2016). Even though this portal has facilitated cheque payments for online traders, it has not been successful in implementing a complete cash-less auction process. Further the number of mandis registered currently and targeted to be added by 2018 does not come even close to half the number of existing mandis in the country.

What one needs to acknowledge is that even though there are farmers who have found stable options for their produce, the low-downs of this crisis is higher than the brighter side. The smaller farmers whose produce are restricted by the reach to their villages itself are the ones who need to be re-assured. Further fresh produces of fruits and vegetables that are sold by small hawkers and vegetable mongers in the streets of India rely on liquid monetary transactions. These agents of the agricultural marketing system also need to be reassured and an appropriate cash-less reform should be targeted to achieve.

KisanMandi.com, an agri-mart is the closest to transparent form of trade between the producers (farmers) and end consumers that a company has managed to achieve. They are catering to B2C as well as B2B facilities and thus making the process easier for both ends, buyers and sellers (About Us : KisanMandi.com, 2017)

Adding to the existing scenario in India, we look into one of the major limitations of physical auctions. Auctions where you need to assemble people in one place, a major constraint is the time. To bring a group of people together for the process may not mature owing to unique purchase schedules of buyers. A lot of buyers prefer to buy products at their ease preferring a “buy-when-you-want” marketing type. (Schrader & Henderson, 1980). Further sufficient time is invested in traveling from individual houses to the mandis. So to have an efficient system of auction without investing time in trying to gather people or travel, would be an ideal solution for a lot of farmers. Online agro auction is the solution that we propose to a scenario like this especially given the current crisis situation in India.

However, in this paper we suggest that a cash-less auction process can be successfully implemented by making trade transparent between buyers and sellers of agricultural market. We detail on the strategies available to both sides in an online Agro – Auction. Further we discuss a dynamic model for the online auction game. The limitations of the process have also been discussed for a complete understanding of the scenario.

3. UNDERSTANDING THE GAME

Before we understand the available strategies on both sides of this auction game, certain assumptions need to be clarified.

1. One objective of this cash-less Agro auction is to make trade transparent. Hence this process has no agents between the buyers and sellers. Which reflects that the platform design should be such that the changes in the prices and quantities should be updated automatically by the auction process through a dedicated software making the transactions visible.
2. A buyer in this auction process includes anyone right from the end consumers, retailers to small town vendors and hawkers to the producers themselves.
3. A person can be a buyer and seller on the portal simultaneously.
4. A single seller may be selling more than one commodity on the auction portal.
5. All sellers simultaneously offer their bids (price and quantity of the commodity). As a result of which, a buyer is able to view and compare bids before making a purchase.

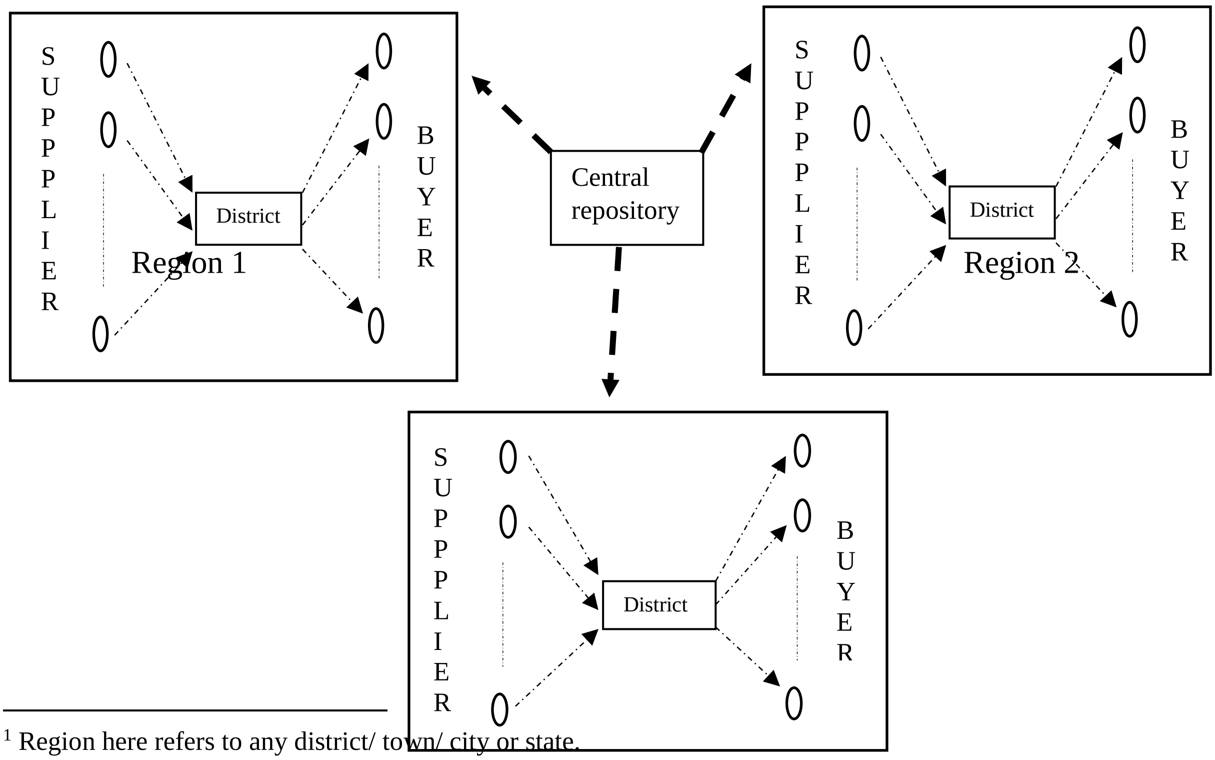
6. A transaction is complete only when the buyer and seller have agreed upon the current price for purchase and sale, and the payment is made for the same. Once the transaction takes place it is binding on both the parties.

The e-auction process

A supplier enters into the auction by declaring the supply units and finalizing his sale bid with the regional repository for a given amount of time. All the figures are mutually consented on, by the supplier and the repository manager. All the regional[1] repositories are linked to a central repository[2] for facilitating trade over cities. All demands arising from the local region will be satisfied by the regional repository. As per buyer demand, if any commodity needs to be delivered out of the local region, such transfers will take place through the central repository. An ERP approach may be used to implement this process.

On the auction portal, a buyer will be able to view and compare the bids of all the commodities irrespective of which region the produce belongs to. A buyer enters into the auction by quoting a price for a given commodity. In the auction process, the buyer merely indicates his purchase intention through this quoted price. The buyer's purchase will be actualized only if any of the bids is lower than or equal to the quoted price. A buyer can wait for the prices to fall before quoting his price, but once the buyer enters the auction, purchase of the commodity is finalized with reference to the quoted price mentioned by the buyer.

The sale bid prices may fluctuate throughout the day as various purchases are made. Once a seller has entered into the auction, he is obligated to make the sale as and when a buyer's quoted price matches his current price. This may incur in profit or loss for the seller based on the fluctuation but he cannot change the price once he is part of the process. Buyers can decide to consume the commodity purchased and request immediate delivery of the same or enter the auction as a seller for the units he wishes to sell. He must do so like any other supplier through a proper channel involving the regional repository. The physical transfer of goods from the supplier's end to the buyer's end has been represented in Figure 1.



[1] Region here refers to any district/ town/ city or state.
[2] Central Repository may be referred as a single repository for India located centrally to ease transfers from one region to another

Region 3

Figure 1: Schematic representation of commodity flow

Given the scenario of demonetization, where the economy almost came to a standstill, the suppliers should aim at recovering the most from their produce. The strategies available to both the players in this cash-less auction game, not only includes the profits gained from the trade but also some value creation suggestions. A dynamic model has also been discussed.

Buyer strategies

A buyer enters the auction with a purchase intention for a commodity i at a quoted price convenient to the buyer. If P_i^* is the quoted price and p_i is the current sale bid for the commodity i, the buyer is faced with two possibilities for the commodity i.

1. If $p_i \leq P_i^*$ the buyer's purchase is successful and he can request for delivery of the units.
2. If $p_i > P_i^*$,
    a. Buyer can wait till the price reduces to P_i^* or below, before he confirms his purchase intention on the portal.
    b. Buyer may quote a higher price to match p_i for enabling immediate purchase.

A buyer may opt to sell some of the purchased units. To do so he must enter the auction as a supplier and declare the quantity and his sale bid with the local repository. He will have to follow the strategies as explained under supplier strategies.

Supplier Strategies

A supplier will be able to reap the benefit of trade if the current going out price $p_i >$ the cost of producing the commodity i, c_i. The supplier strategies are dependent on whether the supplier is making a profit or loss from the auction process.

1. If $p_i - c_i \geq 0$ supplier makes a profit from the transaction.
2. If $p_i - c_i < 0$ supplier incurs a loss, and subsequently he has available to him one of the following strategies
    a. Seller can simply wait out till the price p_i rises and he receives a profit from the purchase following that time period.
    b. If supplier has abundant money, then supplier can buy his own produce to influence the direction of the price fluctuation and give a positive push to the price. Other buyers on the portal will notice the positive fluctuation and it may also influence their purchase decision.
3. When suppliers enter into the auction, the units are entered into the repository over a fixed period of time that is mutually decided upon by the supplier and the repository manager. This time period can be interpreted as the shelf life of the produce declared by the supplier. Price of the commodities start dropping once the commodities near the end of their shelf life. At the end of the shelf life, any unsold units would contribute towards spoilage. At this he has the following alternatives available to him
    a. He pays the deterioration cost attached to the spoilage as decided by him and the repository manager.
    b. He has the option of converting his loss through value creation of the spoilage. A by-product of the same or making a compost out of the spoilage as per the feasibility are some of the ways of creating a value out of the wastage instead of discarding the same and incurring losses. The profits earned from these may not be as high as that from the fresh produce but would still significantly contribute to the supplier's income.

Following sections, discuss the model and the shortcomings of implementing a cash-less Agro auction system.

4. SUGGESTED MODEL

p_{ij}	price per unit of i^{th} commodity sold to j^{th} buyer
p_{i_o}	Opening Price
p_{i_c}	Closing Price
p_{wi}	Price band for commodity i, for a given season
c_i	Cost per unit of production of i^{th} commodity
FC_i	Fixed Cost associated with i
q_{ij}	Quantity demanded by j^{th} buyer of the i^{th} commodity
Q_i	Total forecasted demand for commodity i
S_i	Total units of commodity i supplied by supplier.
n	Total number of commodities
m_i	Total number of buyers for a commodity i
GI	Geographic Index
PC	Per Capita Consumption
CPI $= \frac{PC}{GI}$	Consumer Price Index
$Q_i = ab^{-p_i} + \text{CPI}$	Quantity demanded by buyer for commodity i
$S_i = cd^{p_i}$	Supply units produced by seller for commodity i

We can say that the supplier quality and price for a given commodity in a particular season depends on various environmental factors. The price of the produce based on the quality can be assumed to lie in a price bandwidth given by p_{wi}. This price of the commodity can be assumed to follow a uniform distribution through a single season. However, it may vary from season to season. Therefore, we assume p_i follows uniform distribution with the density function

$$f(p_{ij}) = \begin{cases} \frac{1}{p_{wi}} & ; \quad p_{io} < p_i < p_{ic} \\ 0 & ; \quad otherwise \end{cases}$$

The supplier's profit (loss) from the auction of q_{ij} units can be measured as $\Pi_{ij} = (p_{ij} - c_i)q_{ij}$. The total profit to a supplier from the i^{th} commodity can be given as $\Pi_i = \sum_{j=1}^{m_i} \Pi_{ij} - FC_i$.

The buyer's profit from this transaction is measured in terms of the utility. A purchase is initiated only if $p_{ij} \leq P_{ij}^*$. The buyer's utility from the i^{th} commodity is given by $\mathcal{U}_b = (P_{ij}^* - p_{ij})q_j$.

The profits to buyers and sellers under the various strategies has been explained by splitting in 2 regions: one when going out price is the market opening price and the other when going out price is the current price credited to the fluctuations at any time of the day.

When the market opens, we can assume that the going out price of a commodity, p_{io}, will be set by the suppliers such that they receive a profit from the overall transaction. If a buyer enters the auction and quotes a price at that opening price then the supplier will necessarily receive a profit (Π_{ij}). As for the buyer the strategies as discussed will depend on the quoted price and the utility of the buyer ($\mathcal{U}_b$) will vary accordingly. Figure 2 elaborates this scenario clearly stating the profit or loss to both the buyer and seller as the case may be.

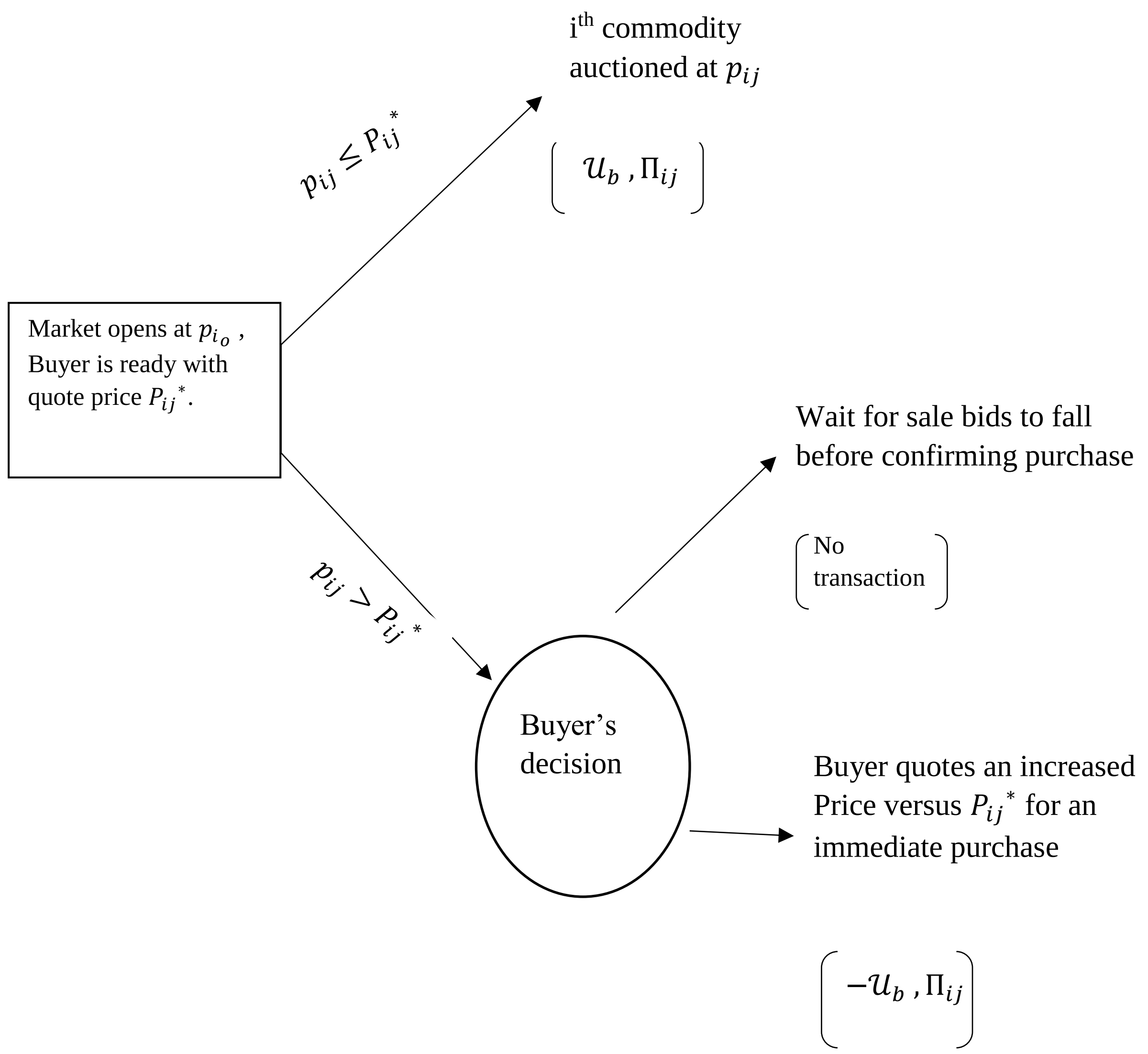
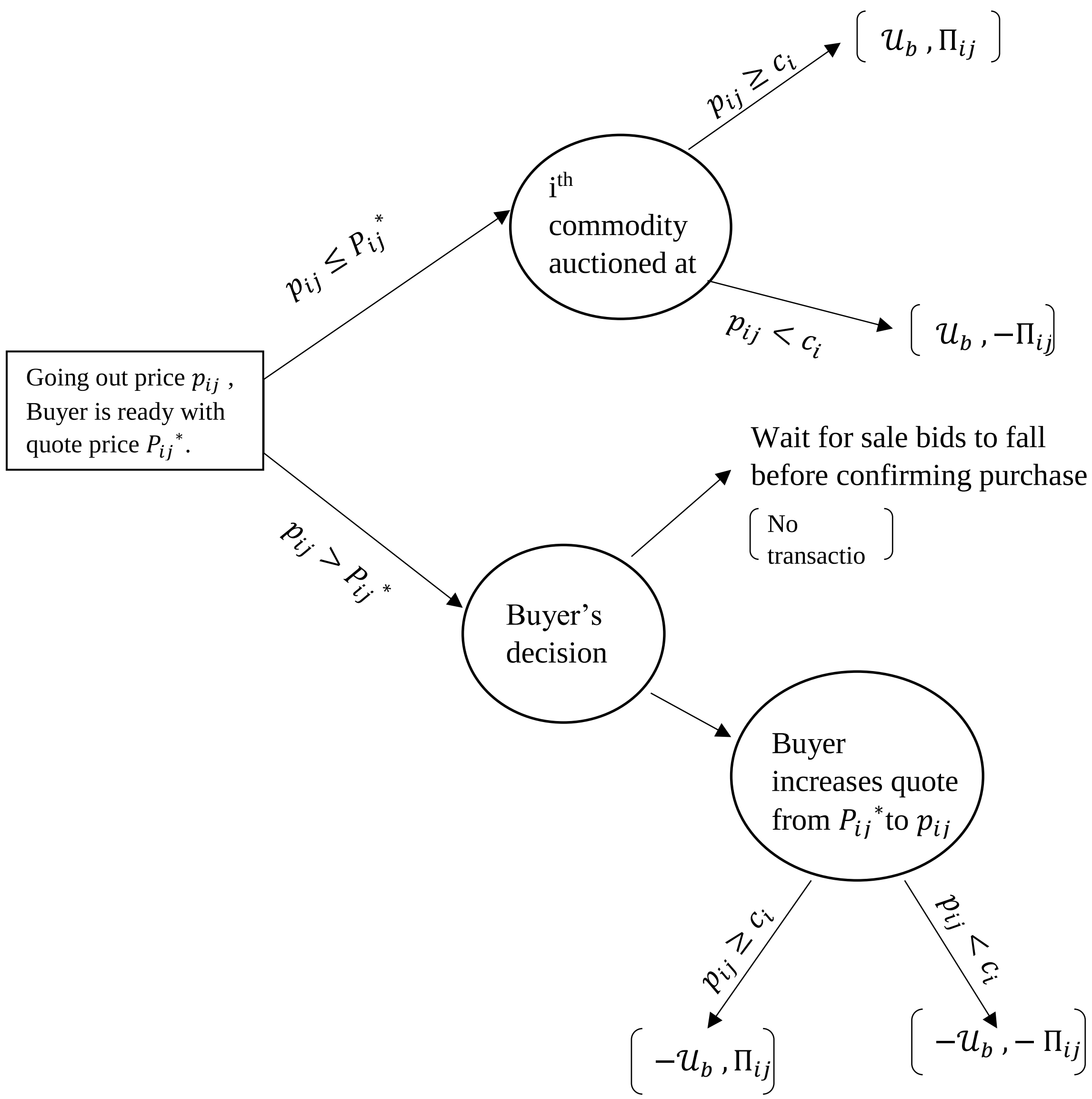


Figure 2: Representation of the buyer and supplier strategies at the opening price p_{io} and expected profit or loss

When the going out price is given by p_{ij}, which is the current price at any point of the day for a commodity i, a supplier may incur profits or losses owing to the fluctuations in the price over the day. The expected profit to the supplier for commodity i can be measured as $\sum_{j=1}^{m_i} \Pi_{ij} \times f\left(p_{ij}\right) - FC_i$ The buyer and supplier strategies discussed in this paper will be viewed under this scenario. (seen in Figure 3).



<u>Figure 3: Representation of the buyer and supplier strategies at the going out price p_{ij} and expected profit or loss</u>

Spoilage

When the units declared by a supplier run out their shelf life, it is often discarded as spoilage. This incurs a heavy loss on the suppliers. Instead the spoilage can be re-used or re-cycled and by products can be created to gain some value out of it. The total number of units that are unsold is given by $S_i - Q_i$. There is a deterioration rate attached to the excess units or the inventory that is unsold. Various authors in the past have modeled deterioration rate as Exponential (Liao, 2008) (Lee & Wu, 2004), Weibull (Mishra V. K., 2012) (Shouri, Konstantaras, Papachrostos, & Ganas, 2009), or even considered it to be constant (Mishra & Singh, 2010).

We suggest the use of an exponential deterioration rate for the model. We define $\theta(t)$ as the deterioration rate of the units $S_i - Q_i$ and d_i as the cost per unit deterioration of the produce post its shelf life. Therefore, $\theta(t) = \lambda e^{-\lambda t}\ ; t > 0$. If the supplier decides to utilize the spoilage by recycling or creating a byproduct, the profit that he gains from that transaction will be $\Pi_{spoilage} = [(p_i - c_i)(S_i - Q_i)] - FC_i - [d_i\theta(t)(S_i - Q_i)]$. This profit is not as much he would have received from the fresh produce owing to the deterioration cost attached to the income but it is more profitable than discarding all the excess units which would incur a loss of $(S_i - Q_i)c_i + FC_i$.

Alternative Strategies:

The buyers on the auction portal may be end consumers as well as small hawkers or vendors who sell in local grocery stores. Most consumers tend to purchase multiple commodities at one go when visiting any market physically. The same facility should be provided in the online auction system, where a buyer can purchase more than one commodity one after the other post the transaction for a given commodity is completed. The producers or sellers are also aware of the multiple commodity need of buyers. It may so happen, that certain commodity are fast moving than others. To facilitate a survival profit for the producers, a system of co-operative sale structure will prove to be beneficial in incurring desired revenue.

In a system of co-operation, when a buyer selects a commodity i, a discounted price $p_i' < p_i$ will be displayed for that commodity along with the original price p_i. A purchase at the discounted price will only be made available under the condition that the buyer also purchases the bundled commodities as suggested. The prices for the bundled commodities j,k,…. n, $p_j', p_k' \cdots p_n'$ will be all discounted prices as opposed to their market price $p_j, p_k \cdots p_n$. The benefit of this bundling or co-operation between the producers is achieved from the shared profit concept. Post the sales, when all producers receive their total profit, an appropriate profit sharing mechanism needs to be designed. For the same, when producers enter into co-operation, they should do so on contract basis which clearly states the rules of sharing the profit amongst the producers before the commencement of the auction. Thus, ensuring that no producer in co-operation violates the profit sharing rule and everyone reaps equal benefits.

One of the most obvious sharing rule is that of equally dividing the total profit. Consider two producers in co-operation selling commodity i and j. The total profit earned by these producers is $\Pi = ((p_i{}' - c_i)Q_i + FC_i) + ((p_j{}' - c_j)Q_j + FC_j)$. The profit earned by each producer under the equal sharing rule will be $\frac{\Pi}{2}$. Further, this rule will only be applied if the shared profit is higher than the otherwise individual profit which is $\frac{\Pi}{2} > \Pi_{supplier}$.

Therefore, we have

$$\frac{(p_i{}' - c_i)Q_i + FC_i) + ((p_j{}' - c_j)Q_j + FC_j}{2} > (p_i - c_i)Q_i + FC_i \qquad \cdots 1$$

1 is solved further to obtain the condition as shown in 2, under which the above sharing rule will profit the producer of commodity i.

$$(p_i - p_i{}')Q_i < \left((p_j{}' - c_j)Q_j - FC_j\right) - \left((p_i - c_i)Q_i - FC_i\right) \qquad \cdots 2$$

Discount offered by producer of commodity i < Profit to Producer with commodity j at his discounted rate – Profit to producer with commodity i at market price.

Thus, when sharing profit equally, producer of commodity i, will benefit from his association with producer of commodity j only if: the discount offered on commodity i is less than the difference between the profit obtained on the discounted price of commodity j and profit obtained on the market price of i.

This condition will be satisfied only if the right hand side of 2 is positive which leads us to believe that profit for the bundling commodity at the discounted price should be more than profit of commodity i at its market price. This may not be true all the time. So, we may assume the profit sharing rule of equal distribution is not an optimum solution to trades of this kind. This states that profit sharing rule shall be thought of clearly between the producers and then applied to reap maximum benefit from this process. Sharing the total profit based on a pre-decided ratio or based on ratio of investment of the producers or based on speed of movement of the commodities are some of the other sharing rules amongst many that one can look into while settling up their contract in a co-operation scenario.

5. CHALLENGES IN IMPLEMENTATION

A major share of the Gross Domestic Product of the country is attributed to Agriculture in India. The agricultural sector recruits around 50% of the entire manpower and is currently the biggest industry in India. Some of the agriculturally most developed states in India are Punjab, Uttar Pradesh, Madhya Pradesh, Haryana, Bihar and many more. Further come of these states have been ranked on the criterion of growth rate of agriculture Gross State Domestic Product (GSDP) as recorded in the financial year 2012-2013. Top 10 of these are Madhya Pradesh, Jharkhand, Sikkim, Himachal Pradesh, Chhattisgarh, Andhra Pradesh, Assam, Nagaland, Uttar Pradesh and Meghalaya. These states play a key role in the agrarian development of India. (Open Government Data Community, 2016; Maps of India, 2015). Since the agricultural industry is the major contributor to the development of the nation, adoption of technology in this industry, won't be an easy transition from the habit of a physical auction system. There are some obvious hindrances in the road to implementation of such a concept that need mention.

The first challenge that the country faces is that of illiteracy. The decrease in illiteracy is not proportional to growth in population in India. As a result, growing literacy rate (current rate 75% in 2016) is still not commendable when compared to prevalent illiteracy in India and is still below the word average literacy rate of 84%. While the population between 2001 and 2011 grew by 18.65 crore, decrease in illiterates was just 3.11 crore. UNESCO reported in 2015 that India was the country with the largest number of illiterate adults in 2010-11. Other reports have also recorded the same observation stating India to be the largest population of illiterate adults in the world. What is worse for the cash-less Agro economy is that the highest contributing states like Bihar, Uttar Pradesh, Jharkhand and alike are amongst the states with least literacy rate between 60% to 70% (Kumar, 2016; indiaonlinepages.com, 2016; Oxfam India, 2015; Census 2011, 2015). Thus, to implement any digital technology will require training and educating the users on both ends. While one can assume that a band of consumers will have ready acceptance towards this new technology a major portion of producers and some of the consumers will be hesitant towards acceptance of this technology.

Another argument favouring cash is its convenience. One does not need to be literate or digitally acquainted to use cash. To encourage adoption of digital transactions, the adoption process must involve easy documentation, quick and hassle-free norms. The shift to cash-less economy should not prove to be more expensive than cash transactions considering internet usage charges. What makes it more challenging is availability of electricity for the same. This can also result in increased charges. These digital mediums should operate in local languages too for a better and quicker understanding of the users of this medium. On one hand, time and money gets saved as they don't need to travel to the mandis themselves, but it implies that requisite transport should be provided for quick delivery of products. One of the important issues is the assurance of security. Especially in the digital world, online security should not be compromised on and thus, one must take extra care in installation of this technology (Srinivasan, 2016).

The challenges in implementing a cash- less Agro Auction system can be realized, if the solutions are proposed such that utilizing the financial services in these rural areas are supported with incentives along the process of adoption.

6. CONCLUSION

Demonetization, a mechanism beneficial in the long run to fight black money has hit the economy hard in the short term. The tremors of which are being felt in various sectors and is crumbling the consumption activity of Indian economy. This move has only proved that cash is an inefficient medium of exchange. As per World Bank estimate, digitization of cash-based subsidies, in India, alone will result in saving 1% of the GDP annually. No one on the transaction line right from farmers to retailers will depend on cash solely. Thus, it is the perfect time to introduce new payment habits where people have been blindfolded till now (Srinivasan, 2016).

One of the sectors that contributes to the country's GDP at large and has been hit hard is that of the agricultural sector. In such pressing times, we suggested a cash- less Agro Auction system that will not only help curb this crisis, but makes trade transparent and efficient. The various strategies available to the buyers and sellers have been discussed and a model has also been proposed for the same. In doing so, alternate selling strategies for producers have been discussed where a coalition amongst the producers might benefit the producers and also enhance the trading experience of the buyers. One needs to remember that a good customer experience is the key to adoption. So to change from a convenient mode of transaction to a literarily higher mode of transaction will need a dedicate set of volunteers to implement the proposed model. Since agricultural contributors comprise of a major rural part of India, we appreciate the challenges that may be associated with the implementation of such a system. However it's only a matter of time before these challenges can be conquered; moreover what is important is the initiation of a cash-less agro auction system.

Once the agents of the agricultural channel adopt digital payments and falls in line with the available financial services, benefits will follow. One of the biggest benefit is the inflow of banking capital, which will accelerate agricultural growth, and rural lives will also be improved using the finances available. The entry of payment banks will play an important role here. Banking habits will improve creating bankable experience for the otherwise cash dependent segments of the country (Impact of Demonetization on various sectors & the Economy, 2016) (Srinivasan, 2016)

This is the perfect time for rural and urban India to learn and adopt digital modes of transaction and increase its digital literacy rate. Even with normalization of liquid cash flow, a cash-less system is going to be more efficient and reliable in future. A cash-less transaction system will keep the agricultural sector protected from any monetary crisis in the future, if any.

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DISRUPTIVE VIA BEING CASHLESS: PAYTM

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ABSTRACT

When market forces no longer tend to follow known trends and technology is running obsolete every passing minute; the only way for businesses to emerge and sustain is via “Disruption” which transforms an existing sector by introducing simplicity, convenience, accessibility and affordability. The disruptor under study is Paytm belonging to the Fintech sector of the ever-booming Finance Industry of India. The case brings to light the disruption brought about by Paytm by moving businesses and customers away from the traditional cash driven economy. Additionally, the need for this disruption and the factors boosting the acceptance of this model such as increase in the ecommerce adaptation of businesses, extensive smartphone penetration, demonetization and focus of the Government policies on Digital India have been highlighted. The study also analyses the strategies such as cashbacks, referral payments, discounts, aggressive marketing etc. adopted by Paytm to capitalize on the favourable opportunities faced by the Fintech industry. The analysis is backed with primary research underlying the degree to which these strategies have worked for Paytm and areas of further improvement needed. Finally, the attempt is to explore the recent updates in this sector with the introduction of UPI and BHIM and to study the impact of the same on the existing players and what steps need to be taken in the coming future to ensure a progressive disruption in the industry.

KEYWORDS: Disruption, Fintech, Mobile Wallets, Paytm, Demonetization, Marketing Strategies, Unified Payment Interface (UPI), Bharat Interface for Money (BHIM).

1. INTRODUCTION - DISRUPTIVE BUSINESS

Disruption in Business:

Disruption is the seed that overgrows the strong footholds of large competitors in any given industry or market. As aptly coined by Clayton Christensen, it is a process whereby a company with resources significantly lesser than those of established incumbent businesses is able to successfully challenge them. The breeding ground for disruption to emerge is usually when these large incumbents overlook the real needs of their customers in the aim to achieve volumes or cater to higher profitability segments. These overlooked segments are what form the entry spots for disruptive businesses, who thrive on catering to these demanding and dissatisfied customers, perform their way up through the market with better and quality performance. The ceaseless adoption by customers of the disruptive businesses offerings is when disruption has finally occurred.

Most contemporary organisations of the current era are a brainchild of innovative thinkers and disruptive executors. The common ties between businesses like Uber, Airbnb, Netflix, Amazon, Facebook and Snapchat are those of entering an established market space and revolutionizing the way the industry functions, bringing in a completely new dimension to the market and shattering the set way of functioning. Disruption remains independent of industries and segments; in China it emerged in the light of Alibaba and in America is was disguised as Tesla.

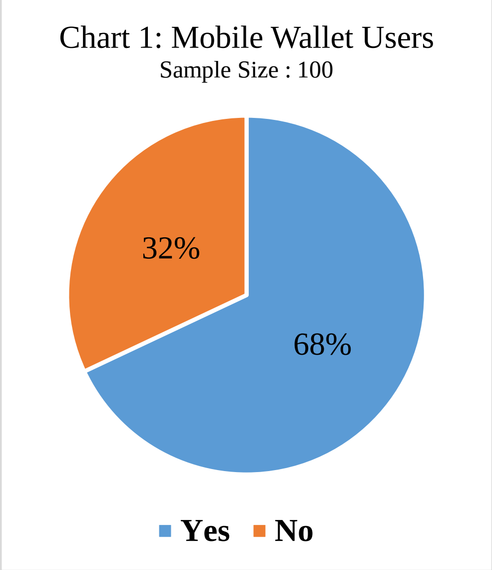
Need for Disruption:
The phenomenon of dynamic markets has long lost its essence of uncertainty. Markets today are not merely changing, rather, markets are disrupting and older ones are wearing out. To overcome stagnation in a given industry, disruption is the only way ahead. The norms of the old business theory require rattling by the entry of a new young school of thought that changes the future of the coming generation of companies in a given industry. With faster technological obsolescence and higher information accessibility, being unconventional is the only viable option for new businesses to rule out conventional ones.

The short-term pain of being disruptive is a heavy burden to the new firm, with lower customer adoption, untimely chaos and mammoth investments in generating information about its unorthodox idea, however the long-term advantage is that of emerging into a one of its kind business player and redefining the market space as a whole. This pain is the only way to metamorphose industries into their next generation avatar, where business definition and goals completely change, just like how Tesla motors is shifting the automobile industry to a more green and sustainable one.

2. FINTECH INDUSTRY BACKGROUND

Industries are not only the ones impacted by disruption but they also aid the process of the same. The industry under study is “Fintech”, which aptly classifies to be a disruptor itself, under the Indian Financial Sector. A niche segment in itself, it is relatively nascent in the context of Indian markets but nonetheless has been marked by a hyper growth phase. The emergence of this sector has come about with significant potential in unmet consumer demands and the infiltration of technology and big data analytics in the conventional roots of finance in India. This has led traditionally operated financial institutions to reorient their operating models towards an environment of collaboration and dynamism amidst all participants of the Fintech ecosystem. The traditional banking industry has mainly been hit on three core segments with the coming of Fintech: payments and remittances, process improvements and customer engagement.

The expeditiously evolving start-up domain in India has been imperative in creating a sustainable Fintech ecosystem. The proliferation of fintech start-ups has been given an impetus by an ever-increasing demand for digitally enabled financial products by consumers and the rampant rise of smartphone and other digitally connected devices. As concluded by the collaborative survey undertaken by Price Water House Cooper (PWC) and Confederation of Indian Industry (CII) titled Fintech: Redefining banking for customers, investments into Fintech based start-ups grew from $145.1 Million in 2014 to $1.2 Billion in 2015. These change makers are reshaping traditionally provided financial services with integration of high end technology, thereby forcing the incumbent players to follow suit and rework strategies and heavily invest in new age digital enabled products and services to survive this wave of disruption.

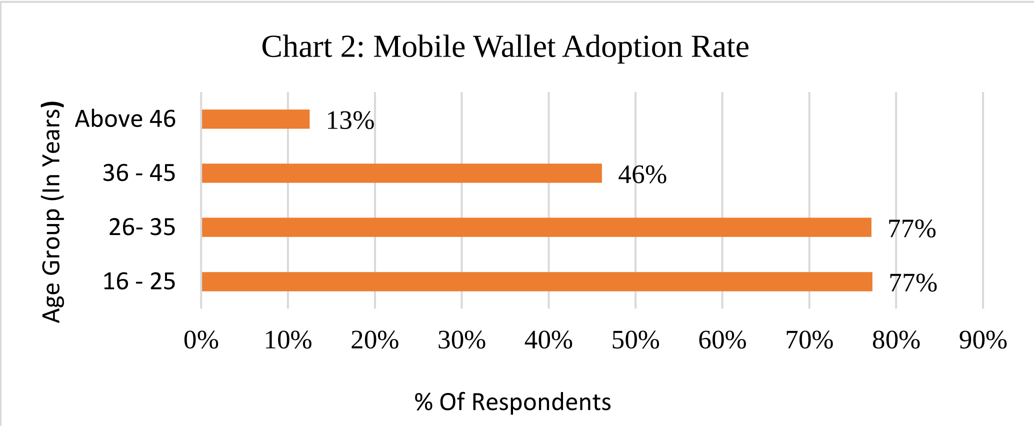


These established players (i.e. traditional financial institutions) have now broadened their horizons and are grasping all possible collaborations with these young entrants (i.e. fintech start-ups) to enter segments such as payment wallets, investment intermediation, online client acquisitions, to name a few; as these young financial service providers are making major inroads into zones exclusively demarcated for banks. Innovative business models like peer-to-peer (P2P) and online lending are altering consumer access to funds, and at the same time generating additional income streams. The newly emerged models earn on charges associated with lending and enjoy cost advantages of a fully digital only business. The Reserve Bank of India released "The Consultation Paper on Peer to Peer Lending" to regulate the P2P lending in order to safeguard consumer interest and ensure fair practices between parties (Source: RBI Website). The digital investment advisory models are posing to be a challenge to the third-party product distribution offered by banks, which are a strong cash inflow to the latter's operations. When it comes to payments, which constitutes a strong pillar of this industry, start-ups are fostering this area in terms of speed, convenience, efficiency and multichannel accessibility. They are remodelling consumer psychology and attitude towards better performance, innovative solutions to payment needs, thereby making existing customer relationship with old school payment options more and more vulnerable. In the light of digital transactions, recently Indian Railway Catering and Tourism Corporation (IRCTC) has tied-up with Paytm Wallet for railway bookings and is expected to create a base of more than 1 crore fintech users annually.

Indian consumers and enterprises have shown an unanticipated speedy rate of adoption. Hailing from a cash fixated economy, where branch banking and relationship-driven service expectations were the ways to operate, the rules of the game have moved on to large ticket size transactions, mobile banking and customized financial solutions irrespective of location, grade and language filters. The above change in functioning can be largely attributed to the significantly rising smartphone and internet penetration witnessed in the last few years. This deep penetration and digital inclusion of masses has given Fintech the opportunity to address the legacy issues of weak scope of banking reach and concerns of financial inclusion in the economy, currently the banking system caters to only 53% of the country's population (Source: KPMG Fintech In India: A Global Growth Story). The current Central Government has taken under its ambit to increase financial inclusion in the economy to lead all sections of society towards progress and reduce disparity. The government too sees Fintech and technology to be an enabler to help conclude its objectives. The moral fibres of the Indian Financial Sector, SEBI and RBI are providing unconditional backing to this vision of a new digital economy.

With schemes like Jan Dhan Yojana leading to the inclusion of 200 million customers into the banking network, and Aadhar linked accounts; thereby increasing the customer base for Fintech players to thrive upon. There are initiatives that are further making "going digital" more attractive than the previous status quo, like allowing tax exemptions and rebates to businesses and merchants who undertake more than 50% of their transactions digitally and proposals regarding removal of surcharges on online and card payments. With RBI issuing licenses to materialize the reality of Payment Banks in India, the transit for cashless payment oriented firms has now begun.

The Indian Fintech sector is climbing up the growth ladder and is forecasted to touch $2.4 Billion by 2020 from the current $1.2 Billion spot where it resides. The robust fintech



ecosystem, a tenacious pipeline of inexpensive and highly trained tech workforce along with a strong commitment and determination from the government to significantly improve the technology and digital infrastructure of the country in making India Digital are factors that have accelerated the journey of the Fintech disruption in India.

The observations of primary research were supportive to the secondary data; where 68% (out of 100) of the respondents were active users of mobile wallets and its services (Chart 1).

Age Groups (In Years)	Sample Size	Adoption Rate (Proportion)	Comparing Proportions (Z-Test)	
	N	P	Level of Significance – 5%	
16-25	44 (P1)	0.77 (P1)	P-hat	0.72
26-45	48 (P2)	0.68 (P2)	Q-hat	0.27
			Std. Error	0.09
			Z-Value (Cal)	0.91
			P-Value	0.36

At 5% level of significance the proportions are not significantly different.

Table 1: Testing for Mobile Wallet Adoption Rate

Additionally, the adoption rate between the age groups of 16-25 and 26-35 has not shown any significant difference (Chart 2 and Table 1). This could be on account of the fact that though the younger population of
16-25 are more tech savvy and open to new technology; the age group of 26-35 too makes use of mobile wallets for petty cash purposes.

3. RESEARCH PROBLEM

Disruption is the need of the hour and the genesis of the new. From upgradation in technology, to taking the industry further and providing greater convenience and satisfaction to customers; the long-term gains provided by disruptors are undisputed. Also, Fintech has been a disruptor in itself in the financial sector by evolving the traditional cash only industry to the new age digitally enabled services and Paytm as a company has played an important role in complementing this disruption. This paper aims to study the disruption caused by Paytm and analysing the strategies adopted by the company to boost the adoption of its innovation among businesses and customers. The attempt is also to understand that given the dynamic nature of the industry, moving forward how the disruption initiated by Paytm will need to acclimate to changes in the external scenario in order to push the company into its next phase of aggrandizement.

4. RESEARCH OBJECTIVES

The following are the objectives of the study:

- To understand the disruption in the Fintech sector brought about by Paytm.
- To understand the need for such a disruption and the factors that have fuelled the same.
- To analyse the strategies that Paytm has adopted in order to increase the acceptance of this innovation among consumers and businesses and the results of the same.
- To highlight the recent developments in the Fintech sector and how Paytm will need to adapt in order to grow from strength to strength.

5. DATA METHODOLOGY

For this study, Secondary and well as Primary sources of data were used in order to collect information. The primary data was collated between the time frame of 20th December 2016 – 5th January 2017.

Secondary information for this study has been taken from data available on the internet and the company’s public information. Additionally, Case Study Methodology has been used for undertaking the research which described the problem or situation at hand, followed by the in-depth inquiry, investigation, and reasoning of the case.

Primary Data for this research includes both Qualitative Research and Quantitative Research. Qualitative data has been collected from businesses that use Paytm’s services with the help of Personal Interviews and quantitative data has been collected from customers with the help of Structured Surveys. (Please refer to Appendix 1 and 2)

Sampling plan used is as follows:

- **Sample Size:** Constituted 100 respondents (i.e. customers) for structured surveys and 20 respondents (i.e. businesses) for personal interviews.
- **Sample Description:** The sample for structured surveys included both users and non-users of mobile wallets situated in Mumbai. The sample for personal interviews included businesses operating in Mumbai that used Paytm as a payment option
- **Sampling Method:** For the purpose of the study, non-probability sampling method has been adopted, as not all consumers and businesses had an equal chance of selection as sample. Additionally, Convenience Sampling has been used.
- **Analytical Tools Adopted:** For the objective of testing data, parametric tools such as Z-test (Test for proportions) and Chi Square testing have been used, subject to data applicability.

6. LIMITATION OF STUDY

The research undertaken has the following limitations:

- In the Fintech Industry, only the operations and strategies of Paytm have been analysed.
- The primary data collection is limited only to Mumbai.
- Since the sample size is 100 for consumers and 20 for businesses, it may not hold to be a true representative of the entire population.

7. BACKGROUND – PAYTM

Belonging to this newly disruptive Fintech industry is a company called Paytm. Originally incubated by One97 Communications in 2010, who was in the business of prepaid mobile recharge, it is headquartered at Noida, India and is one of the fastest growing players in this market. “Pay Through Mobile” or Paytm has a strong potent vision to make an enormous impact on the economic foundation of the country, thereby making a positive difference by empowering lives. The mission statement too is in line with the company’s distant vision, to create a base of 100 million users from India alone, by becoming the most trusted mobile brand in the country. The efficacious undertaking by the company is a clear reflection of its competitive and sustainable ambition.

With small steps in the industry, the company now has penetrated every segment of the same. Services such as bill payments, e-commerce, bus travel and movie ticketing, Paytm hosts a bouquet of convenience. In 2014, the company forayed into e-wallets and launched its star product “Paytm Wallet” which went on to become India’s largest mobile payment service portal with currently 150 million registered wallets and 75 million android app downloads as of November 2016. (Source: Times of India)

8. PAYTM - THE DISRUPTOR

Disruptive Business Model

The disruption done by Paytm lies in its Business Model. The business model of Paytm can be clearly understood in 2 classifications of serviceability that it offers. The website and the application (app) of the company is also an e-commerce platform for buyers and sellers alike. Branded as Paytm.com, the company charges a percentage cut on the pre-tax sales amount from the buyers registered with them, which varies from 0-20% with an additional of listing and on-boarding fees. The other, and major chunk of the business, comes from the Payment and Wallet Integration services provided under the Paytm Wallet. The wallet serves as a handy option to users to transact with diurnal items such as utility bills and phone and internet recharges. Revenue is in the form of commission made on the amount transacted for recharges.

Paytm has been successful in linking its wallet to the payment gateway infrastructure of 400 online merchants in the country, to the likes of Flipkart, MakeMyTrip, Ola, Uber, Snapdeal, Bookmyshow and Amazon. With these integrations, the company is now targeting the Rs. 3,000 crore mark for all the transactions done on Paytm Wallet. As per RBI's directive, any app-based purchases cannot accept payments via credit cards unless they possess a 2-step authentication process in their payment infrastructure (Source: RBI website), Paytm wallet became the go to solution for many such companies having not so strong security protocols. This has further intensified the speed and spread of the company's wallet integration and moving the traditional economy from cash driven transaction to digital transactions.

Factors Supporting the Disruption

Residing in the Fintech space, Paytm too enjoys the external forces that are sailing the mast of this progressive industry. The ones mentioned earlier are too seen to nourish this flaming disruption. However, the contemporary macroeconomic factor that the company has very judiciously availed itself of is that of the Demonetization drive in India. On 8th of November, 2016, when the Government of India declared a ban of the presently circulating Rs. 1,000 and Rs. 500 notes, the economy was suddenly taken aback by a cash crunch in the markets. With limited exchange and withdrawal limits, cash driven transactions soon took a dip. This decision by the government gave the players in the Fintech Industry the much-needed push. As seen in the primary research Chart 3, almost 57% of the consumers started using mobile wallets post demonetization.

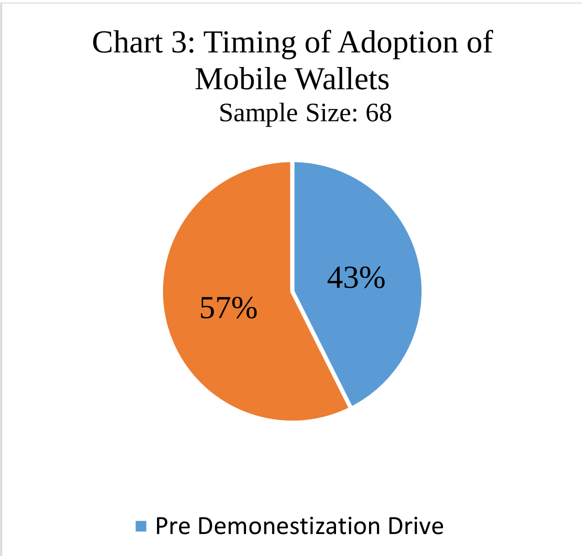


Chart 4 depicts the level of awareness that users had regarding all leading wallets in the market. Demonetization was a silver lining for all these payment portals, however when tested for significance, the awareness that Paytm's promotional activities were able to garner were higher as compared to how other brands went about spreading their name (as seen in Table 2). This strongly validates the point that Paytm has a far stronger marketing and branding strategy that has helped it to declutter amidst the confusion and emerge out to be the most trusted brand, as elected by users.

Table 2: Testing of Awareness Among Consumers using Mobile Wallets.

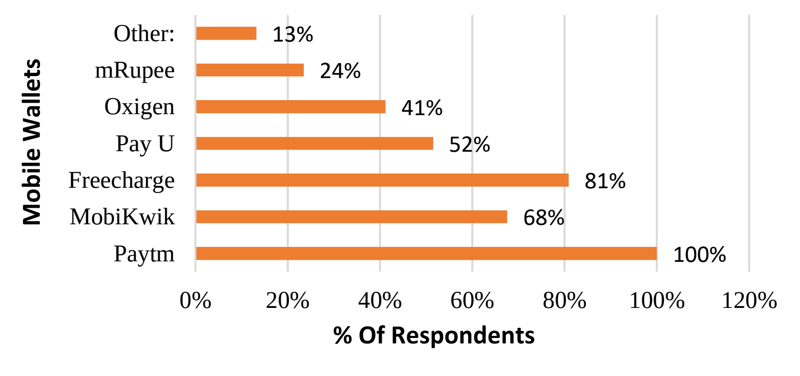
Chi Square Test	
Observed	100%
Expected	16%
Significance Level	5%
Degree of Freedom	5
Chi Square Calculated	4.41
Chi Square Table Value	1.145

At 5% level of significance, the proportion of awareness regarding brand Paytm is significantly greater.

In the light of this economic chaos, Paytm emerged as the victor to unravel masses of this cash-mess; overnight, the company went on from being a new thing to a must-have, as the time for going cashless had come. Not only does Paytm boast of a strong customer and merchant database, the financial community too has a strong belief in Paytm's enterprising future. The company was funded by Alibaba Group of China in 2015, for $575 Million who now holds 25% stake in One97 Communications. Emeritus of Tata Sons, Ratan Tata has also personally invested in the company and will come on board as an advisor.

Chart 4: Awareness Among Consumers Using Mobile Wallets

Sample Size: 68



Out of the 41 entities who applied for the payment bank licences, the Reserve Bank of India granted licenses to 11 entities including Paytm to launch payment banks in 2015. Paytm's payment bank is to be a separate entity and it intends to build upon the existing users that the company has, to offer them services such as debit cards, savings accounts, online banking and transfers, which is in accordance with the government's initiative of a becoming a cashless economy.

Playing on the Opportunities

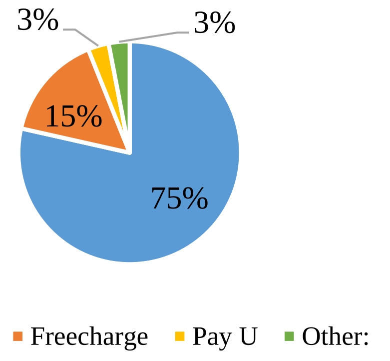
There are multiple ways in which this company has gone about grabbing its market share. The initial days saw Paytm buzzing with cashbacks and referral discounts to attract the new tech savvy consumer into its revenue grid. Targeting the mobile recharge category, the company successfully created a strong foothold in this segment due to their unbelievable offers and payment schemes, taking ahead this craze to their secondary segment, their e-commerce platform. The locus point of all of Paytm's operating and expansionary strategies lies in their sheer focus on honing their online to offline and offline to online (O2O) business integrations. The rationale to acquire numerous firms like Near.in, Jugnoo and Little was to help customers identify sources to use mobile wallets and develop an attitude to use payment wallets for petty cash expenses and utility bill payments, thus creating more use cases for their wallet. The encouragement to move away from cash and to try Paytm was the fact that consumers no longer need to bear the processing charges linked with card transactions, making it suitable for payments in smaller denominations. Soon the company grew in terms of both visibility and transaction volumes and transpired to be a channel allowing brick and mortar businesses to be at par with their online counterparts.

The company has also used strategic brand associations in order to amplify its brand resonance. In 2015, the company bagged the deal of the Board of Control for Cricket in India (BCCI) title sponsorship, for a value of
Rs. 203 crores stretched over four years. The rights are for India's international and domestic matches in the country, which total to be 84 matches in the coming 4 years leading to a valuation of Rs. 2.42 crore per match. Media agency Maxus, concluded the deal for Paytm. Associating itself with the big league of BCCI, the company is to experience consumer viewing and brand exposure, that penetrates across socio-demographic classifications and segments.

During the course of the study there was a momentous upsurge in the company's activities around the event of the demonetisation drive in the country. There was seen a sudden hustle in the marketing front, when Paytm made the most of the country's Prime Minister's announcement of the macroeconomic event and thanked him in a controversial newspaper advertisement featuring him, that was flashed across front pages of top newspapers in the country, citing demonetisation to be the boldest decision in the financial history of independent India. While the government was working out the implementation of its sensational economic manoeuvre, Paytm's logo made its mark on small vendors, tea stalls, parking lots, temples and even wedding invitations. Boot camps were set up to introduce masses to the app and give them a real-time experience in operating the same. The unforeseen cash crunch which was marked out to be a hindrance to economic growth, industrial activity and enterprise profitability at large, could have only been a silver lining to Paytm, for its pivotal moment had arrived. Milking the most of this fortuity, the company had allocated a gross budget of Rs. 600 crores toward its branding and marketing initiatives. At the helm of these campaigns is a Delhi-based company by the name of McCann who is responsible for the latest "Ab ATM nahi, Paytm karo" series of advertisements. The ads not only creatively depict how Paytm wallets come as a great relief as millions of Indians face a cash crisis but also highlights the company's strong product benefits and at the same time drives home the message of becoming a more financially inclusive country. The strategies adopted have enabled the wallet provider to

Chart 5: Most Actively Used Mobile Wallet

Sample Size: 68



generate trust among customers in a rather risky sector like payments, thereby validating its strong service utility.

Chart 5 concluded Paytm to be the most preferred wallet amongst all the other brands as it was used by 75% of the sample. The findings above coupled with the consumer awareness regarding brand Paytm, summarize that the efforts of the company's marketing strategies and models have paid off, as majority of its target market has been successfully converted into its active user base.

Impact of the Disruption and the Supporting Strategies

Post demonetization the company experienced unparalleled growth in terms of customers and business dimensions, as compared to its past. As disclosed by the company in an interview to The Business Insider, it is registering 7 million transactions worth Rs.120 crore in a single day as more and more consumers and merchants switch over to Paytm in the event of tight cash positions. The overall traffic saw a surge of up to 700% and a 1000% increase in the amount of money deposited in the Paytm account, in a time frame of a mere few days. During this period, the transaction value continued to be 200% of the average ticket size while the number of app downloads went up 300%. The number of transactions per user also went up from 3 transactions to over 18 transactions in a week the wallet has exceeded its four-month performance target and has clocked in a Gross Merchandise Value (GMV) sales of $5 Billion. The management has witnessed a manifold growth in its offline business contribution from 15% six months ago to over a 65% as of now. Backed by a strong payment ecosystem of customers and merchants, the company aims to reach a target of 8 million transactions worth Rs.400 crore a month, by the current financial year end. It has signed up more than 20 million users for a total of 177 million since the government bombshell-making it by far the largest company of its kind in India.

Secondary data has been able to highlight the quantum of growth that Paytm has witnessed, however the aim of the first hand research has been to provide deeper meaningful insight into consumer behaviour as far as using mobile wallets are concerned. Majorly mobile wallets have been a convenient option (as seen in Chart 6) to perform mobile recharge activities. When tested as compared to all other categories, users who had undertaken mobile recharges via wallets were found to be significantly higher (Table 4). The previously mentioned cash back and referral schemes have led to further penetration this usage segment.

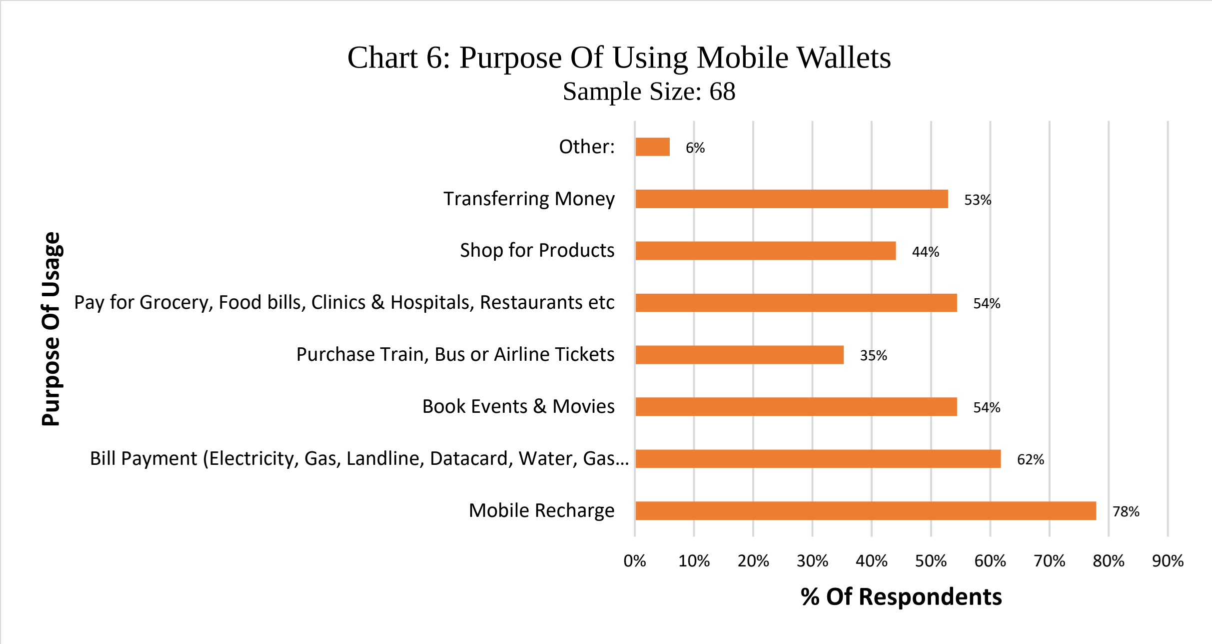
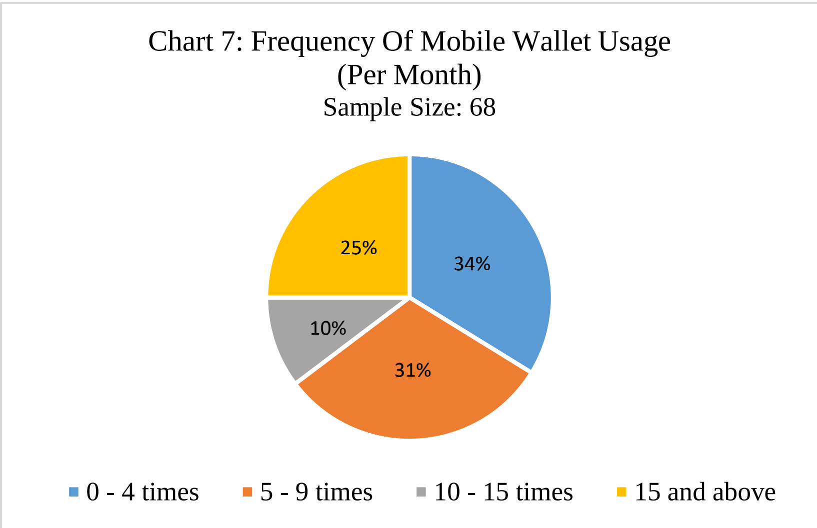


Table 3: Testing for Purpose of Using Mobile Wallets

Chi Square Test	
Observed	78%
Expected	12.5%
Significance Level	5%
Degree of Freedom	7
Chi Square Calculated	3.421
Chi Square Table Value	2.167

At 5% level of significance Mobile Recharges were found to be significantly higher than the other options.

Of all the users who actively adopted mobile wallets, the average frequency of transactions was recorded to be at an average of 5 times in a month (Chart 7).



Further classification of frequency based on age groups highlighted that in the 5-9 times frequency bracket was notably used higher by the relatively younger age group of 16-25. The age group transacted mainly in the INR 2001 – 5000 category and majority of the transactions were conducted for Mobile Recharge and Utility bill payments. The 26-35 age group used mobile wallets largely for transactions amounting between INR 0 – 2000 and an average monthly usage of 0-4 times. Lesser frequency of payments per month supports the major purpose of mobile recharges, which has been the maximum in this age group. The younger lot is more open to the idea of technology infusing with money and make the most of the convenience that it has to offer, however a scepticism still exists in the minds of the older age category which restricts their frequency of usage and trust with higher denominated purchases via these portals. (Please refer Table 4 and Table 5 for the above observations)

Table 4: Frequency of mobile wallet usage amongst different age groups.

Frequency*/Age Group	16 – 25 (n=34)	26- 35 (n=27)	36 – 45 (n=6)	Above 46 (n=1)
0 - 4 times	21%	52%	33%	-
5 - 9 times	38%	22%	33%	-
10 - 15 times	12%	7%	17%	-
15 and above	29%	19%	17%	100%

. *Frequency Per Month

Table 5: Transaction value amongst different age groups.

Transaction Amount**/Age Group	16 – 25 (n=34)	26- 35 (n=27)	36 – 45 (n=6)	Above 46 (n=1)
0 - 2000	24%	48%	-	-
2001 - 5000	44%	22%	83%	-
5001 - 8000	26%	19%	-	-
8001 and above	6%	11%	17%	100%

** Transaction Amount Per Month in INR.

The convenience that Paytm aims to promise comes with a lot of uncertainty on part of its users and merchant integrators. The survey attempted to find out the causes of distress and uneasiness that users felt while using the applications promised utility. The common factors causing apprehension to consumers stood out to be fear of hacking and theft of personal/confidential data such as credit/debit card credentials (Chart 8).

Looking deeper into the data based on age classifications, the concerns relating to the above stated problems is common across age groups (Table 6). This could be because of the fact that the application runs on third party cloud services.

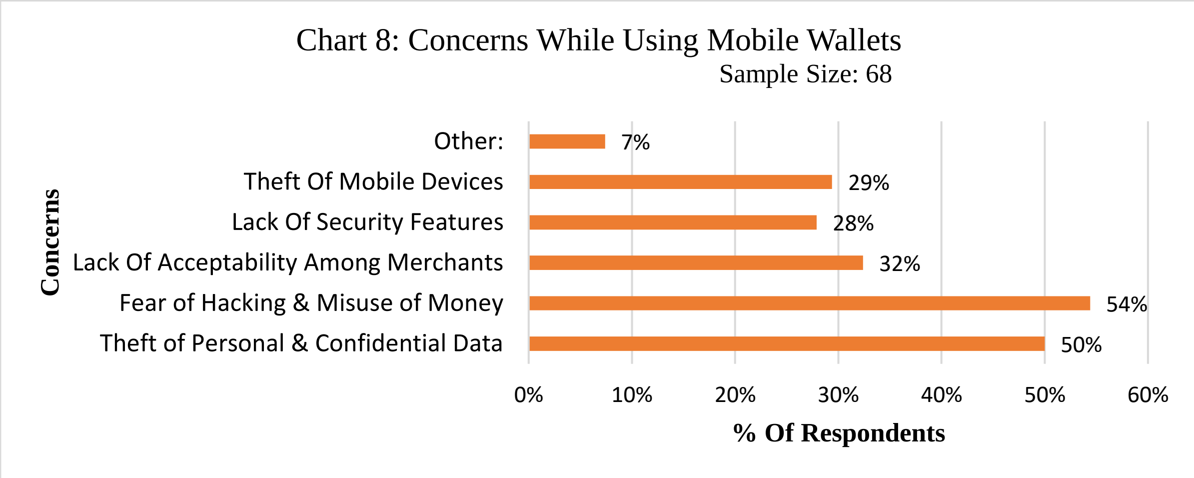


Table 6: Frequency of concern amongst various mobile wallet user groups

Concerns /Age Group	16-25 (n=34)	26-35 (n=27)	36-45 (n=6)
Theft Of Personal & Confidential Data	50%	52%	33%
Fear Of Hacking & Misuse Of Money	53%	52%	33%
Lack Of Acceptability Among Merchants	44%	15%	50%
Lack Of Security Features	27%	30%	17%
Theft Of Mobile Devices	18%	37%	17%

The concluding's from the personal interviews with businesses stated that 9 out of 10 firms adopted Paytm post demonetization. To stay in tune with relevant market conditions, liquidity crunch due to demonetization and greater serviceability to customers, were cited to be the reasons of integrating Paytm in their payment structures. One of the major areas of concern for businesses, as highlighted in the primary research undertaking to use Paytm as an ideal payment platform, posed to be the transaction limit and the non-interest bearing deposit that they were maintaining with the company, resulting into less than 10% of their sales being routed via Paytm. The traditional method of accepting credit/ debit cards and maintaining bank accounts were more pleasing to their business acumen as compared to the payment wallet option. However, they accepted the latter to be a convenience, subjected to the above modifications.

The company too has identified the above disputed points and has started working on the same. Paytm has introduced a newer target segment in the form of daily wage workers such as electricians, plumbers etc., who up till now were not a focus group for the company. To carry on the increase load of users on its platform, there has been an aggressive recruitment of about 9,000 employees to work on its payment bank and mobile wallet divisions, as reported to the Economic Times by the Fintech giant. Largely competitive due to its cutting-edge technology, the platform currently runs using 200 servers which now is planned to increase to 1,500 servers to accommodate new users and capacitate multiple transactions in real time. This poses to be the solution to the prevalent concern that approximately 48% of our respondents had regarding the fear of hacking of data, misuse of money and the multiple reported cases of transaction failures, which proves to be a strong barrier in their unconditional consent towards Paytm.

Chinese giant Alibaba's financial arm, Ant Financial Services Group is propelling the company's technological advancements and steering it to materialize its technology oriented strategies. Money exposed to technology invites for unwanted frauds which can tamper with Paytm's strong assurance of security and trust. This is where the Chinese know how is helping build a more secured platform, by developing a customised risk management product for Paytm. With prior experience in the Chinese markets, with a dedicated team of professionals, Ant Financial's is all set to implement the same for their Indian subsidiary. The company's Chinese mentor is pushing it towards scale and is aiding it in the formation of the country's largest payment cloud, as against its traditional usage of Amazon Cloud services for its marketplace. Alibaba not only knows how to handle the platform but also knows how to handle scale, and with their technical intelligence backing Paytm, the company is leading ahead of its competitors and sustaining its first mover advantage to disrupt its way ahead.

9. THE NEW FACE OF COMPETITION

Our Disruptor Paytm, from what seems to be, is in an uncommonly beneficial position of enjoying, what happens to be a sustained first mover advantage. The industry at large is changing colours and so are the shades of competition and threats blending into new hues. This youthful company is no longer strategizing to capture markets from the other players, now the faceoff is with a far bigger entity.

The fertile Fintech ground is lucrative not only to the young technology infused entrants but also the veterans are eyeing the juncture. It usually gets tougher surviving for private counterparts when the government steps in any given trade, and the industry under our study is witnessing similar series of events. The launch of the Unified Payment Interface (UPI) by the National Payments Corporation of India (NPCI) is reshaping the behaviour of the consumers when it comes to transacting and digital banking at large. It is a system designed to collate multiple bank accounts into a single mobile application, being a combination of several banking features, enabling seamless fund routing, merchant payments and bill sharing, all in one hood. UPI is well equipped with payment system player (PSP), which endows it to offer peer to merchant and peer to peer transactions. With mobile wallets still lacking multiple wallet integration and compulsion of third party authentication on use of credit/debit cards to transfer money, UPI comes as the simplest of tools in the most complicated of ecosystems of transactions.

According to a recent report by the Boston Consulting Group (BCG) and Google, the total payments via digital mediums in India could increase by about a factor of 10 by 2020, and the country's Cashless Bharat Vision is in line with the above estimates. The UPI platform is providing a base to all functioning banks in the country, by allowing them to build their own customised digital banking solutions and applications on the standard system. These applications are integrated with social media features and other such user friendly options, the likes of which include the apps of State Bank Of India (SBI), Axis Bank, ICICI Bank and other such 21 banks who are integrated with the UPI system and are making the digital banking experience as simple as emails for their customers.

Paytm's star performer, the Paytm Wallet too has a new opponent to outdo in the form of the Bharat Interface for Money (BHIM). It symbolises to be the shape of things to come -- a technology ecosystem for the poor; read, technology and micro-lending. The Prime Minister's voluntary endorsement of the same is helping BHIM achieve what Paytm and other payment wallets are still striving for, the acceptance of an entire section of the population who still find it difficult to correlate money with technology. Stated to be even easier to use than a payment wallet, the application is a progeny of the UPI platform and uses the same system to initiate and settle transactions, thereby not requiring the bank account details (i.e. number) of the payee and simply working on mobile numbers or virtual payment addresses to transact, without the need of an active internet connection. The transaction limits per transaction are at Rs.10,000 and in a day are at Rs.25,000.

The father of these inventions, the NPCI is aggressive on pushing UPI down to e-commerce firms and payment wallets to increase the acceptance of the same for the greater good of the masses. With money transfers using USSD based mobile banking (i.e. dialling *99#), one can make the most of the digital boon sans the internet connectivity. This pushes players like Paytm in a turbulent terrain, on fronts of the mass reach and the quantum of resources the competition is equipped with. The evolving structure of the market is also accommodating the older digitally modified players into the affair. SBI Buddy, Axis LIME and JIO Mobile are adding to the fast growing list of mobile wallet service providers in the country.

10. THE WAY AHEAD FOR PAYTM – SUGGESTIONS

The definition of disruption correctly identifies it to be a process rather than a one-time mega event. The strength of the disruptor lies in disrupting itself over and over again, giving little opportunity for someone else to hand hold the process. Paytm stands to be no exception to this rule. A true disruptor, the time has come for Paytm to break down its own wall and leap over to the other side to reinitiate the disruption it had once begun. Backed by strong efforts in the technological aspect of their operations, the company needs to strive to create a greater efficiency and consumer convenience rift between itself and the new entrants that are pouring in.

On closely studying the external communication and marketing strategies of the company, the study concluded that Paytm resides in a highly sensitive niche spot. The intensity and reach of rumours is the most common storm blowing away public relation campaigns in this area. The perplexity regarding its product and functions further makes these rumours believable. Being in the light for some time now, the hour has come for the company to move on from promotion related advertisements to more informative and clarifying statements via their media gateways. Having captured a significant market share, Paytm needs to now realign its focus on building consumer confidence in this volatile area of digital transactions and money transfer. Money tends to be the factor that makes this industry so sensitive, thus making consumers more dubious towards change. If Paytm aims to more than just a brand and be synonymous to trust, the marketing spotlight of the entity now has to shine bright on reducing the materialization of such rumours and breeding more consumer loyalty and reliance by emanating greater information.

Going ahead, multiple wallet integration will have to become a reality. A Paytm user wanting to pay money into the wallet of another company should not have restrictions in carrying out the same. The government intervention has set a benchmark of performance and expectation, but a disruptor like Paytm needs to over perform that very benchmark and create one where competing practically loses viability. Playing on its strengths and covering for its weak spots, repairing the damage in time and intensifying its disruption process is what is most likely to keep the mobile wallet giant ahead of the curve.

11. CONCLUSION

What is it to witness that the moment of disruption has come. The above research has analysed Paytm in the light of the genesis of this disruption, its growth into a niche segment in an altering industry, the capitalization potency in the wake of favourable macroeconomic conditions and finally the incontestable enterprising outlook of the road ahead.

From being the leading mobile recharge platform to being India’s first few licensed payment banks, the diversification undertaken by the company assures of its true commitment towards its vision and mission statement. The launch of this radical change maker saw many emulators follow, however the company is a brilliant business exception of having to enjoy a unchallenged first mover advantage, making it by default the industry leader. Moving on from cashbacks and referral discounts the strategies of the business concern have evolved invariably to keep it on the bleeding edge. The company banks on its strong investor relations on both monetary and non-monetary fronts. With heavy investments in technology, customer retention and market penetration, the company is busy reallocating resources on restructuring its organization structure to help Paytm root deeper into the market.

Paytm emerged as the strongest reactor post the demonetization cash chaos. A strong marketing and highly responsive marketing blueprint is what aided this firm to surf this wave of economic revolution. The massive merchant integration and business network built over the years is not only emanating convenience to its users by providing reliable and applicable sources for going cashless, but also giving very little breathing space for new entrants to sprout. The strength of this disruption measured in terms of numbers has also shown a growing trend, which makes it very credible in a nascent industry like Fintech.

The scene ahead looks rough with bigger players coming to garb their share in the pie. UPI and BHIM truly pose to be the face of the next disruption of this in vogue business segment of financial digitization and inclusion, however the strength of Paytm lies in repeating history and initiating a disruption which not only shatters the new industry status quo but also helps the company built one entirely for itself. The stakes are now pitched on how Paytm aligns its strategic focus towards the functioning of its new venture, the Paytm Payment Bank to continue to be the golden child of the forthcoming Digital India.

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APPENDIX 1: QUESTIONNAIRE FOR BUSINESS

1) Which economic activity do you undertake?
2) Which of the following modes of payments do you accept?
3) Which is your most preferred mode of accepting payments?
4) When did you start actively accepting payments through Mobile wallets?
5) What percentage of your total payments is transacted through mobile wallets?
6) The reasons for accepting payments through mobile wallets?
7) The reasons that come in the way of you fully accepting mobile wallets as a mode of payments?

APPENDIX 2: SURVEY FOR CUSTOMER

1)Age Group (In Years)
16 - 25
26 - 35
36 - 45
Above 46

2)Gender
Male
Female

3)Do you use a mobile payments platform? (If 'Yes' then skip to question 5, If 'No' then only answer question 4)
Yes
No

4)Reasons for not using Mobile Wallets? (Multiple Answers Allowed)
Greater Preference Towards Cash Transactions
Lack of Knowledge about Mobile Wallets
Lack of Security Features & Fear of Data Theft
Complex Transaction Procedure

Lesser Acceptability Among Merchants
Fear of Hacking & Misuse Of Money
Other: (Please Specify)

5)When did you actively start using mobile wallets
Pre-Demonetisation Drive
Post Demonetisation Drive

6) Which of the following Mobile Wallets have you heard of? (Multiple answers allowed)
Paytm
MobiKwik
Freecharge
Pay U
Oxigen
mRupee
Other: (Please Specify)

7)Which of the following Mobile Wallets do you use actively? (If you select 'Paytm' then skip to question 9)
Paytm
MobiKwik
Freecharge
Pay U
Oxigen
mRupee

8)Reasons for not using Paytm actively? (Multiple answers allowed)
Poor User Interface
Lack of Security Features
Fear of Data Theft
Lesser Acceptability Among Merchants
Fear of Hacking & Misuse of Money
High Costs (As Compared to Competitors)
Other: (Please Specify)

9) What purpose have you used the Mobile Wallet for? (Multiple answers allowed)
Mobile Recharge
Bill Payment (Electricity, Gas, Landline, Data card, Water, Gas etc.)
Book Events & Movies
Purchase Train, Bus or Airline Tickets
Pay for Grocery, Food bills, Clinics & Hospitals, Restaurants etc.
Shop for Products
Transferring Money
Other: (Please Specify)

10)Frequency of usage (Per Month)
0 - 4 times
5 - 9 times
10 - 15 times
15 and above

11)What is your total transaction value per month? (In Rupees)
0 - 2000
2001 - 5000
5001 - 8000
8001 and above

12)Reasons for using a Mobile Wallet? (Multiple answers allowed)
Convenience
Cash Back Facility/Discount Vouchers & Attractive Deals
Demonetization - Had no option!
Security Features

13)What worries you while you use Mobile Wallets? (Multiple answers allowed)
Theft of Personal & Confidential Data
Fear of Hacking & Misuse of Money
Lack of Acceptability Among Merchants
Lack of Security Features
Theft of Mobile Devices
Other: (Please Specify)

14)What do you expect in the Mobile Wallets to increase acceptance of the same? (Multiple answers allowed)
Enhanced Security Features
Quick and Hassle-free Refund
Tutorials for Transactions
Other:(Please Specify)

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IMPACT OF ECONOMIC INDICATORS ON FOREIGN DIRECT INVESMENT: A CASE OF INDIA

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ABSTRACT

Introduction: It is known that the growth in FDI is increasing at the global scenario. Remarkably in the developing countries the FDI is increased in last two decades. The current study will investigate the effect of the economic indicators on the Foreign Direct Investment in India.

Research Methodology: The data of FDI, GDP growth, Consumer Price Index, Exchange Rate (US$) and Inflation (WPI) from 2001-02 to 2015-16 have been used for the purpose of study. Various statistical tools i.e., Mean, Standard Deviation, Variance, Kurtosis, Skewness have been used to form the normality of the data. Correlation and Regression Analysis have been used to explore the relationship and dependency of these variables.

Findings: The findings revealed that there is a noticeable validity of the economic indicators of India on the Foreign Direct Investment. The result of the correlation and regression analysis shows the significant impact of the economic indicators in the foreign direct investment.

Originality: The study is unique and inspected the impact of the economic indicators of India on the foreign direct investment with the use of current statistics.

KEYWORDS: FDI, GDP, CPI, Exchange rates, Inflation-WPI, Economic Indicators

1. INTRODUCTION

In last two decades, magnificent growth has been recorded in foreign direct investment at global economic scenario. This remarkable rise of global FDI makes FDI a vibrant and essential factor of improvement policy in both developed and developing nations and policies are intended in order to inspire inward flows. India also comes among those countries, which attracts the foreign direct investment inflows. Since the contribution of foreign direct investment to domestic capital creation is relatively small, growth-led FDI is more likely than FDI-led growth. This is so, as improved economic activity magnifies the market size, offering greater opportunities for foreign investors to acquire economies of scale in a large market economy like India. (Athreye and Kapur, 2001). According to UNCTAD (2007), India has appeared as the second most striking terminus for foreign direct investment after China and ahead of the US, Russia and Brazil.

The fact that the FDI inflows have been enlarged greatly in India after 1990. After a gentle and poky rise till the middle of 2000s, inflows increased rapidly thereafter. From an average of just $ 1.72 bn. during 1991- 92 to 1999- 00, and the slightly higher $ 2.85 bn. during 2000- 01 to 2004- 05, the equity inflows surged to $ 19.78 bn. during 2005- 06 to 2009- 10. (Rao & Dhar, 2011). Indian economy attracts the FDI because of the growth in the GDP, attractive exchange rates, controlled inflation rate etc. The current study will evaluate the effect of the economic indicator on FDI.

The study is divided into six parts. The first part will explain the overview of the study. The second part will show the objectives of the study. The third part will discuss the literature. The forth part will illustrate the methodology used for the purpose of the research. Fifth part will show the findings and analysis of the data and the last part will discuss the conclusion of the study.

2. OBJECTIVES OF THE STUDY

1. To find out the effect of economic indicators on FDI
2. To study which indicator has higher impact on FDI

3. REVIEW OF LITERATURE

Balasubramanyam (1996) studies the effect of FDI on economic growth of the country. Borensztein (1998) investigates the variation of FDI among different countries. Zhang (1999) investigates the interconnection in 10 East Asian economies. Bengoa and Sanchez-Robles (2003) discovered the relationship of FDI with economic growth, human capital, economic stability, and liberalized markets. Choe (2003) examines causal relationships between economic growth and FDI. Alfaro et al. (2004) examine the links among FDI, Financial markets and economic growth. John Andreas (2004) calculated the potential of FDI inflows to affect host country economic growth. Salisu A. Afees (2004) examines the determinants and impact of foreign direct investment on economic development in emerging countries. Chen Kun- Ming, Rau Hsiu – Hua and Lin Chia – Ching (2005) study the effect of exchange rate movements on foreign direct investment. Chowdhury & Mavrotas (2005) studies the special effects of FDI on different developing countries. Thai Tri Do (2005) examines the impact of FDI on Vietnamese economy. Frimpong & Oteng - Abayie (2006) studies the relationship of FDI and GDP growth. Miguel D. Ramirez (2006) calculates the impact of foreign direct investment on labour productivity function.

Bengoa and Sanchez - Robles (2003) expended the data on 80 countries for the period 1979 - 98 for the evaluation. Choe (2003) used the data of 80 countries over the period 1971 - 1995, and applied a panel VAR model. Alfaro et al. (2004) expended cross-country data from 71 developing and developed nations averaged over the period 1975 - 1995. John Andreas (2004) Performed both cross section and panel data investigation on a dataset covering 90 countries during the period 1980 to 2002. Salisu A. Afees (2004) used Nigeria as a case study for the evaluation. Chen Kun- Ming, Rau Hsiu –Hua and Lin Chia – Ching (2005) implement the study on Chinese and Taiwan’s economy for FDI. Chowdhury & Mavrotas (2005) performed his study on the data of Chile, Malaysia and Thailand. Thai Tri Do (2005) used the FDI data of Vietnams from 1976 to 2004 and applied Partial Adjustment Model and time series data for evaluation purpose. Frimpong & Oteng - Abayie (2006) performed their study in the Ghana.

Miguel D. Ramirez (2006) used the data from Mexico for the 1960 - 2001 period is estimated that includes the impact of changes in the stock of private and foreign capital per worker and used error correction model for the assessment of the data.

Balasubramanyam et al. (1996) finds significant results supporting the assumption that FDI is more important for economic growth in export promoting than in importing- substituting countries. This implies that the impact of FDI varies across countries and that trade policy can affect the role of FDI in economic growth. Borensztein et al. (1998) suggest that the differences in the technological absorptive ability may explain the variation in growth effects of FDI across countries. In their analytical frame- work, the level of human capital determines the ability to adopt foreign technology. Thus, larger endowments of human capital are assumed to induce higher growth rates given the amount of FDI. This hypothesis is supported by their empirical findings. Zhang (1999) finds that FDI appears to enhance economic growth in the long run for mainland China, Hong Kong, Indonesia, Japan, and Taiwan and in the short run for Singapore.

Bengoa and Sanchez-Robles (2003) reveal that FDI is positively correlated with economic growth, but host countries require human capital, economic stability, and liberalized markets in order to benefit from long-term FDI inflows. Using data on 80 countries for the period 1979-98. Choe (2003) revealed that FDI Granger-causes economic growth, and vice-versa. However, the effects are rather more apparent from growth to FDI than from FDI to growth. Alfaro et al. (2004) unearth that FDI plays an important role in contributing to economic growth but the level of development of local financial markets is crucial for these positive effects to be realised. John Andreas (2004) finds indications that FDI inflows enhance economic Growth in developing economies but not in developed economies. This paper has assumed that the direction of causality goes from inflow of FDI to host country economic growth. However, economic growth could itself cause an increase in FDI inflows. Salisu A. Afees (2004) unearth that inflation, debt burden, and exchange rate significantly influence FDI flows into Nigeria. The study suggests the government to pursue prudent fiscal and monetary policies that will be geared towards attracting more FDI and enhancing overall domestic productivity, ensure improvements in infrastructural facilities and to put a stop to the incessant social unrest in the country. The study concluded that the contribution of FDI to economic growth in Nigeria was very low even though it was perceived to be a significant factor influencing the level of economic growth in Nigeria.Chen Kun- Ming, Rau Hsiu –Hua and Lin Chia – Ching (2005) reveal in their findings that the exchange rate level and its volatility in addition to the relative wage rate have had a significant impact on Taiwanese firms' outward FDI into China. They concluded that the relationship between exchange rates and FDI is crucially dependent on the motives of the investing firms. Chowdhury & Mavrotas (2005) find that GDP causes FDI in Chile but not vice-versa. Regarding Malaysia and Thailand, their study suggests that there is bidirectional causality. Thai Tri Do (2005) shown to have not only short run but also long run effect on GDP of Vietnam. Frimpong & Oteng-Abayie (2006) also use Toda-Yamamoto no causality methodology and Find in the case of Ghana a causality relationship from FDI to GDP growth only during the post-structural adjustment program period. Miguel D. Ramirez (2006) unearth that that increase in both private and foreign investment per worker have a positive and economically significant effect on the rate of labour productivity growth. However, after taking into account the growing remittances of profits and dividends, there is a marked decrease in the economic effect of foreign capital per worker on the rate of labour productivity growth.

Though the scholars revealed a number of facts related to FDI. Researchers also unearth the effect of the FDI on the economic indicators but not many studies have been concentrated on the Indian subcontinent to evaluate these effects. The present study will investigate the effects of the economic indicators of India on the FDI.

4. RESEARCH METHODOLOGY

The present study will investigate the relation of economic indicators and FDI in the case of Indian subcontinent. The study is based on the secondary data. The Indian data of Gross Domestic Product growth, Exchange rate, Inflation, Consumer Price Index and Foreign Direct Investment from 2001-2002 to 2015-2016 has been used to perform the analysis. Following tools have been used for the purpose of analysis.

Following tools are used for data analysis.

1. The mean is a particularly informative measure of the "central tendency" of the variable if it is reported along with its confidence intervals.

$$\text{Mean} = \frac{\sum X_i}{n}$$

Usually we are interested in statistics (such as the mean) from our sample only to the extent to which they can infer information about the population. The confidence intervals for the mean give us a range of values around the mean where we expect the "true" (population) mean is located (with a given level of certainty).

$$s = [S\ (x_i\text{-}m)^2/N]^{1/2}$$

The variance of a population of values is the square of standard deviation.

Skewness measures the deviation of the distribution from symmetry. If the skewness is clearly different from 0, then that distribution is asymmetrical, while normal distributions are perfectly symmetrical.

Kurtosis measures the "peakedness" of a distribution. If the kurtosis is clearly different than 0, then the distribution is either flatter or more peaked than normal; the kurtosis of the normal distribution is 0.

A line in a two-dimensional or two-variable space is defined by the equation Y=a+bX; in full text, the Y variable can be expressed in terms of a constant (a) and a slope (b) times the X variable. The constant is also referred to as the intercept, and the slope as the regression coefficient or B coefficient. Multiple regression procedures will estimate a linear equation of the form:

$$Y=a+b_1X_1+b_2X_2+...+b_pX_p$$

The regression line expresses the best prediction of the dependent variable (Y), given the independent variables (X). However, nature is rarely (if ever) perfectly predictable, and usually there is substantial variation of the observed points around the fitted regression line. The deviation of a particular point from Pearson's chi-square is used to assess two types of comparison: tests of goodness of fit and tests of independence. A test of goodness of fit establishes whether or not an observed frequency distribution differs from a theoretical distribution. A test of independence assesses whether paired observations on two variables, expressed in a contingency table, are independent of each other – for example, whether people from different regions differ in the frequency with which they report that they support a political candidate.

5. FINDINGS AND ANALYSIS

This part of the study reveals the findings and analysis after evaluating the data of GDP, CPI, Exchange Rates, Inflation (WPI) and FDI from the period of 2001-02 to 2015-16. Table 1 shows the result of the descriptive statistics. These tests have been performed to check the normality of the data.

Table 1
Descriptive Statistics

	GDP Growth at Factor Cost	CPI	Exchange Rate (US $)	Inflation – WPI	FDI
Mean	7.45	6.24	45.93	5.64	17.60
Std. Deviation	2.026	3.086	2.571	1.832	14.377
Variance	4.105	9.521	6.609	3.355	206.692
Skewness	-0.802	1.243	0.618	0.261	0.483
Std. Error of Skewness	0.661	0.661	0.661	0.661	0.661
Kurtosis	-0.642	0.753	0.933	-1.295	-1.776
Std. Error of Kurtosis	1.279	1.279	1.279	1.279	1.279

Table one shows that the average GDP growth of the India during 2002 to 2016 was 7.45 percent whether the average Consumer Price Index was 6.24. The average Exchange rates during the given time period was 45.93, Average Inflation Rate was 5.64 percent and the average FDI was 17.60 Billion US$. The values of standard deviation, Variance and Kurtosis can be also observed from Table 1. These values are quite satisfactory and show a consistence figures. Further we checked the correlation among these entire variable. Table 2 shows the results of correlation analysis.

Table 2
Correlation Analysis

	GDP Growth at Factor Cost	CPI	Exchange rates (US$)	Inflation-WPI	FDI
GDP Growth at Factor Cost	1	.322	-.413	.100	.439
CPI	.322	1	.140	.160	.866
Exchange rates (US$)	-.413	.140	1	.381	-.028
Inflation-WPI	.100	.160	.381	1	.211
FDI	.439	.866	-.028	.211	1

Table 2 shows the correlation among all the variables. The table two depicts that there is a positive correlation among FDI and GDP growth, CPI and Inflation. The FDI have a negative correlation with Exchange rates and its normal because the FDI increases with the value of the host countries currency decreases. India is a live example of this. After performing the correlation test the regression analysis performed on the data. Table 3 and 4 will reveal the results of the regression analysis.

Table 3
Regression

R	R Square	Adjusted R Square	Std. Error of the Estimate
.893	.798	.663	8.345

Table 4
Anova

	Sum of Squares	Mean Square	F	Sig.
Regression	1649.078	412.270	5.920	.028
Residual	417.842	69.640		
Total	2066.920			

FDI has been taken as the dependent variable. Also GDP, CPI, Exchange Rate and Inflation (WPI) are the independent variables. The R^2 value of .798 shows that approximately 80% of the variations are in dependent variable due to independent variables. The ANOVA also supports the result as the value of .028 shows that the independent variables have significant effect on the dependent variable.

Further Table 5 shows the values beta coefficient.

	Unstandardized Coefficients		Standardized Coefficients	
	B	Std. Error	Beta	t
(Constant)	22.832	63.149		.362
GDP Growth at Factor Cost	.652	1.644	.092	.396
CPI	3.906	.952	.838	4.102
Exchange rates (US$)	-.873	1.330	-.156	-.656
Inflation-WPI	.998	1.637	.127	.610

6. CONCLUSION

The study reveals that there is a quite significant impact of the economic indicators on the FDI.

As the findings shows that the attractive exchange rates, consistent GDP growth, good Consumer Price Index and a controlled Inflation rate attracts the huge Foreign Direct Investment in India. As the findings shows that the average FDI in India during 2002 to 2016 is 17.60 Billion US$, is a satisfactory figure in itself. At the same time the average GDP growth of 7.45% during the same time period shows that there is a visible impact of GDP on the FDI. The correlation value of .866 between the CPI and FDI reveals that there is a positive relation between these two variables. So CPI is most effective indicator in our study which has high influence on the FDI.

To conclude we can say that there is a considerable effect of the economic indicators on the Foreign Direct Investment in India.

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A COMPARATIVE STUDY ON INDIAN ARMED FORCES AND CENTRAL ARMED POLICE FORCES

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ABSTRACT

The Indian Armed Forces have long enjoyed the reputation of being one of the finest in the world. The Armed forces render invaluable service to the country, in times of war as well as during peace, ensuring the security of the nation. However, despite our Nations vibrant economy and growing GDP over decades, it is widely perceived that when compared to Central Government Services & Central Armed Police Forces (CAPF), the Indian Armed Forces have got a raw deal in terms of denial of fair wages, quality of life, status, extension of privileges notwithstanding their increased engagement due to ever increasing Internal and External threats compounded with new dimension of increased aid to Civil authorities on multiple occasions.

KEYWORDS: Civil-military, family satisfaction; job autonomy; military; pay; person–organization fit; promotion; military effectiveness, objective control, subjective control, absent dialogue.

1. INTRODUCTION

India inherited a battle-hardened military that owed its allegiance to the British, with the redoubtable reputation of winning wars in distant lands. Post-independence, the Indian military quickly changed its loyalty to the Motherland and proved its worth in saving Kashmir from the raiders and also consolidating India's frontiers. The inherited ethos of unflinching loyalty and dedication makes the Indian armed forces what they are today. In fact, it is to the credit of our military, that the Indian nation is a physically intact entity today. This has been continuously achieved despite meager resources, largely obsolete equipment, a most glaring shortage of officers and perpetual attempts by various forces to belittle the armed forces, especially in the media from time to time.

In today's context and also for the future, the role for today's armed forces cannot be confined to the maintenance of the borders, but needs to be seen as one which also looks within and beyond borders. To protect the country internally as well as defend our strategic frontiers, there is a need to embed the role of India's military in its internal as well as foreign policy. If India is to take its place in the community of nations and emerge as regional or global power in days ahead, there is a need to address various issues concerning Armed Forces. The traditional and primary role of the armed forces as defined by the Constitution of India is "to preserve national interests and safeguard sovereignty, territorial integrity and unity of India against any external threats by deterrence or by waging war”. In fact, the steady economic progress that the country has seen over the last few decades can largely be attributed to a relatively peaceful environment that the country has enjoyed thanks to peace on the borders. But the last three decades have also seen a shift from the primary role that the armed forces of the Union were initially designed for. This is being seen as a secondary role that the Indian armed forces are currently undertaking. This can be defined as “to assist government agencies to cope with ‘proxy war’ and other internal threats and provide aid to civil authority when requisitioned for the purpose.” While the armed forces continue to uphold the responsibility for their primary role, it is the secondary role that now takes center-stage at the national level and in the media. To maintain a fine balance between the two roles is a challenge that our military leaders have overcome with great vision and aplomb. No other armed forces in the world have faced such challenges in their own countries, and it is to the credit of our military leaders that we have come this far with the world looking at us with amazement.

As though the primary and secondary roles were not enough to handle, our armed forces over the last five decades, have slowly but steadily taken on a tertiary role, so to say. This role could be defined as “to assist the United Nations (UN) in peace-keeping and peace-building anywhere on the globe and thereby contribute to world peace and harmony.” This role has been accomplished with such dedication and application that India today is one of the largest contributors of UN Contingents in West Asia and Africa.

Very idea of Guardianship has to be rooted in the concepts of honor, higher purpose and belief that the Soldier-Citizen is a standard bearer, who embodies the superior virtues of men but are loath to self-publicize. Consequently, ‘the Military Elite’ is inhibited in proclaiming its special virtues The mandate of Forces seems to be diluted / changed/ compromised with employment in IS duties in last three decades or so by need to raise special Anti-Counterinsurgency Battalions for J&k and Assam Rifles for Eastern Sector due to inherent weaknesses & other factors of Central Services &CAPF. The 67-years of independence have seen many changes in the socio-economic landscape of Asia's third largest economy. During the decades that followed the colonial rule, India's economy, in absolute terms, has expanded to Rs 57 lakh crore from mere Rs 2.7 lakh crore and the nation's foreign exchange reserves have crossed $300 billion, giving the economy firepower to fight external shocks. Annual growth of India's GDP at factor cost has jumped from 2.3% to 4.7% in last six decades. Even as the country has progressed in laying out the basic framework to take the economy to high growth path by building roads and ports and ramping up the food grain production, however a need has been felt to address the outstanding spectrum of issues affecting morale of Armed Forces since independence. There has been a steady, progressive and systematic down-gradation of their status since 1947. Even a cursory look at the Warrant of Precedence (WoP) promulgated by the Government of India at various stages from 1937 till date bring out how the Armed Forces have climbed down the ladder. The Warrant of Precedence in 1947 had a total of 61 articles and the position of military officers particularly in relation to civil officers was well adjusted. The positioning also took note of the length of service of the individuals. This was to cater for a very steep pyramid structure of the Armed Forces where promotions were / are very slow and few in numbers. The new Warrant of Precedence however disregards executive responsibility and length of service.

2. LITERATURE REVIEW

Ours is a multi-faith Army, which has recruited from and operates in a conflict ridden religious society. (Ahuja A,2013). Despite all the challenges and Political – bureaucratic interference, Indian Armed Forces have proved their strong foundation.

Our country acknowledges the need for expanding its strategic influence by deploying Military training missions worldwide (Bedi R,2007), however the tremendous challenges are being faced from Bureaucratic parlous for implementing the same. A need has been felt to address issues of Military reforms such as status, pay, perks and privileges, recruitment, procurement, defence industry and economy in the overall gambit of changes in Civil-Military relations. However, experience has shown that such attempts are thwarted by bureaucracy. (McDermott R N et al.,2012). Huntington`s `objective control` best describes Civil –Military relations in India (Amit Mukherjee,2013).

There is a shift in the overview of democracies and its fundamentals are also changing & adapting to globalization and transnationalism. This invariably is leading to a changed balance between the civil society & the Armed Forces (Cottey, Edmunds and Forster, 2002a). Unlike Indian context, post-World War II, in USA there has been emphasis on growing concentration of Political-Bureaucratic-corporate and Military power, resulting in formers rise as a Superpower (Boggs C, 2012).

The security challenges in Indian context have grown multifold and have the responsibility of Armed Forces. On the contrary the bureaucratic partners always stress upon to have a `smaller but better forces` that are `leaner and meaner` (Dunay,2002). The Armed Forces are under – staffed and continue to restructure, tasks are increasing while the number of personnel are decreasing, and overstretch and gapping are problems in many areas. Tempo and uncertainty, and the impact these had on work-life balance and families are the issues which require immediate attention. (Armed Forces Pay Review Body, John Steele,2016) There is a distinct difference between Armed Forces & Civil society in which they operate in terms of value system, social composition, rules and procedure. The Armed forces are rarely occupational types. (Moskos,1973,Moskos ,1988).The Armed Forces have also been architects of national internal order by virtue of their status, organization and equipment.(Dominique Norois,1997). The Armed Forces are organizational entities shaped for a range of purposes and also reshaped in relation to not only functional demands but also Social –Political factors. (Kerbs,2004). The Army profession under British Indian Army was a constellation of martial caste status, land ownership, dominant caste syndrome and good bodily physique. (Chowdary P,2012).

The Indian Armed Forces per se have played a preeminent role in society not merely as Republic`s defender but also guardian of secularism (Narli N,2005). Unlike the Pakistan Armed Forces which till date do political manipulation, treat the population as stagnant, backward and politically immature governed by religious sentiments. (Daechsel,M,1997).

A number of arguments such as modernization of forces, development of weapon technology, and shift in their role from National to International security have brought out the `Constabulary concept ‘into limelight. Thus, role of Armed Forces has now become much more complex and challenging. (Janowitz, 1960).

The primary motivators for young people to join Armed Forces include a valuable career and a role associated with strength, pride and camaraderie. (Bachman et al.,2000, Eighmey ,2006, Woodruff,kelty and Segal 2006).The effect of Military service is influenced by its larger social context: the forces that lead people to serve in the military, the political factors that shape the military experience and opportunities provided to the service members during and after their tours of duty.(Alair Maclean, 2008).

Generally, in Armed Forces, it is perceived that purpose of life is Community service and Community belongingness. (Iroegbu, 2005). Dignity, is to have a superlative non-instrumental value that deserves respectful treatment. (Thaddeus Metz, 2011). Morale is the level of confidence, enthusiasm and discipline of a person or a group. In Armed Forces perspective, morale, `Job satisfaction` and discipline are boosted when the state machinery treats them fairly. (Abdi SNM, 2007). Understanding the status profiles requires a holistic –interactionist approach in which individual is treated as `Organized whole with elements operating together to achieve a functioning system` (Bergman & Andersson, 2010).

Our Armed Forces operate in a `Mature` democracy (Yehuda Ben Meir, 1995). Ours is a case of Civilian control over Military, where it is perceived that `Civilians have 'The right to be Wrong`. However, a need has been felt to establish a `Normative Theory` in Civil –Military relations so as to protect democratic values. (James Burk, 2002). Harmony is achieved by close & sympathetic social relations within the group. (Mokgoro, 1998). Both Civil &Military establishments should live as a community, sharing overall way of life, inspired by the notion of common good. (Gyekye, 2004). The overall operational effectiveness of Armed Forces should not be compromised and gap not widened. (Strachan,H,2003).

The challenge thrown by various threats are met by Military leadership with foresight in developing new military doctrine.(Forster, Edmunds and Cottey,2002).What the political class fails to see is the revolution taking place in real time intelligence, guided weapons and network centric operations which have a direct bearing on the way the Armed Forces are to be managed.(Freedman,1998;Goldman,2003;Gormley,2003; Harknett,2003).Armed Forces work on the principle of Mission Accomplishment even if it involves supreme sacrifice for the nation. As per the tenants of Exchange Theory (Eisenberger et al.:500-507), the Armed Forces expect complete support of the state. The support can be in terms of Emotional (Respect, Trust, appreciation for work) or instrumental (Policies, coordination). (Indira Awasthy, USI,1986:56).

The current structure of Civil-Military relations in Indian context has been described as an `Absent Dialogue` which has an adverse impact on the military effectiveness. (Mukherjee, A,2013). The gap can be eased by opening a `Public Debate ` and restructuring of `Reserve Forces` in order to enhance their regional identity. (Strachan,H,2003).Establishment of `Trust in Government` and `Political Trust` can also bridge this gap.(Schneider,I,2016). One must not forget the least that a viable & effective state structure, in terms of bureaucracy and military is a necessity for sustained Independence. (Lal, M, 2010). Civil –Military interface should be integrated within the Interagency arena as well as within the Ministry of Defence. This will create a cooperative culture of mutual trust & understanding among Officers of various departments, agencies and units. (Egnell, R, 2009).

In any organization, Motivation and Hygiene factors, as explained by `Two factor Theory` of Herzberg`s play a vital role, causing job satisfaction & job dissatisfaction. (Frederick H et al.,1959).In relation to our present research ,factors such as Pay(J Richard Hackman et al.,1959),Policies, Recognition (Spector,1997),Personal growth(Larry J William et al.,1986)have a great impact on personnel of Armed Forces. Pay is a fixed amount of money paid in return of services. (Susan M,2013,2014). The pay satisfaction depends upon economic benefits received on job, extent to which pay is regarded as fair or deserved and non-economic job satisfaction. (Leonard B et al.,1987). Promotion is the advancement in rank or position in organizational hierarchical system. With reference to Armed Forces, it relates to higher rank, increased pay, greater prestige and status. (Viv Ramdass, 2005).

3. RESEARCH GAPS

Based on extensive literature review, research gaps which emerge are as follows:

(a) Studies identifying the factors specific to Armed Forces, not available in Central Government & Civil Services context.
(b) Research articles on the barriers and challenges for equivalences or relative status of Armed Forces with respect to Civil Services are limited.
(c) Limited information is available in the public domain on the Dimensions which contribute towards giving Civil Services an edge over Armed Forces
(d) There are limited articles on degree of relative importance between Armed Forces and CAPFs/ Civil Services in nation building.

4. METHODOLOGY OF CONDUCT

4.1 Statement of Problem

Indian Armed Forces have always been and will always be a contributor in Nation’s growth. However, history is a witness that in India the Political executive, barring a handful few, neither have the knowledge nor any interest in matters related to Military and therefore depend completely on inputs from the bureaucrats who would continue to mold the political perceptions on governance and administration. The apathy is that Chiefs and HQ staff being available at disposal of politicians are never consulted for important issues affecting the morale of the forces and decisions taken unilaterally leading to representations and further widening the already existing gap between Civil- Military Parlors.

The Military leadership has always railed at this imbalance in decision making structure at the highest levels but has been unable to change the system so far. The constant state of tension between ‘Generalist’ Bureaucracy and ‘Specialists’ Military leaders has resulted in Armed Forces to be on ‘receiving’ side always. The political executive, starting with India’s first Prime Minister Jawaharlal Nehru, has generally excluded the military leadership from decision making process at the highest levels.The Warrant of Precedence of British India kept the Armed Forces Officers on a very high pedestal. The Precedence in India was regulated till the independence by a Royal Warrant which was promulgated on the 6th of May 1871. As per the Royal Warrant, the 'Army Chief', the erstwhile 'Commander-in-Chief 'was higher in rank to the 'Chief Justice' of the

Supreme Court while Military Officers above rank of 'Major-General' were higher than the 'Judge Advocate General of India' & also the 'Secretaries to the Government of India'. 'First Class Civilians of 28 years' standing were equated with 'Major-Generals' while in the present day it is with IAS of 14 years of service. Similarly, 'Civilians of 20 years' standing were equated with 'Colonels' and included 'Commissioners of Divisions'. Status of the 'Colonels' & Below. 'Inspector General of Police', then the highest post in any state were similarly equated with 'Chief Engineers' & were in the same league as the 'Colonels'. The next grade comprised of the 'Third Class Civilians of 12 years' standing who were equated with the 'Lieutenant-Colonels'. These comprised of the 'Under-Secretaries to Government of India', 'Inspector-Generals of Jails' etc. The next grade comprised of the 'Fourth Class Civilians of 8 years' standing who were equated with the 'Majors' and so on. The present combined Warrant of Precedence places the Three Service Chiefs in India at number 12th position Vis-a-vis in Pakistan they are placed at number 6 whereas in China they are at number 1 (a) as Central Politburo forming a decision making member in the Central Committee of Communist Party of China. After the 1962 Indo-China war, the three Chiefs of Staff were put below the newly created Cabinet Secretary. The Major Generals were equated to a rank below the Director of the Intelligence Bureau. After the 1965 Indo-Pakistan war, the Chiefs of Staff were further downgraded below the Attorney General. In 1968, Major Generals were placed below the Deputy Controller and Auditor-General. In 1971, the Service Chiefs came below the Comptroller and Auditor-General (both of whom were previously below Lieutenant General). Similarly, Lieutenant Generals have been placed below the Chief Secretaries, who were previously ranked lower than Major Generals.A fully trained infantry soldier and equivalent in other two forces with three years' service was equated with a semi-skilled worker. With each war came the deaths of countless of our nation's children, who gave the ultimate measure of devotion in service of their nation. The changes to the Order of Precedence and the growing disparity in salary suggests that the nation has Commemorated the sacrifice and rewarded their efforts with a harsh and unconscionable gift of declined dignity. Hence, by selective usage, omission and interpretation of language, civil servants have imposed variety of constraints leading to downfall in status of Armed Forces Vis-à-vis Central Services & CAPFs. In background of all this, an important question arises, the need to uplift the social status of Armed Forces in order to attract the right talent for the forces to further serve the Nation.

4.2 Conceptual Framework

My research is within the framework of scope of study however, various other related relevant issues which directly and indirectly affect the outcome of the study will also be touched upon. The political & Bureaucratic ideology, changing role of Armed Forces taking into account the global dynamic socio-economic & political scenario and its bearing on National Security, pre-& post-Independence employability of CAPFs myth of comparing the supreme Armed Forces with CAPFs and also taking a note of these two forces in our neighborhood will be the broad conceptual framework of studies. The research takes into account the various concepts of Institutional and Systems Theory & key features of Organizational Behavior theory with focus to both these organizations in general.

4.2.1 Institutional Theory

In the context of this study, with reference to this theory, the Dependent Variable selected was `Security of State` since the central goal of the military profession is the security of the state. Independent Variables selected are Technology advancement, Societal pressure and influences, Warrior Code, Moral factor of war, Risk taking ability, Loyalty, Courage, Sacrifice, Selflessness, Performance of duty and Obedience of orders. Mediating Variables selected were Institutional Policy, Institutional Values, Goals, Role of a Soldier and Institutional expectations. Moderating Variable chosen were Military Ethos and Trust. Analysis has shown that all Independent Variables are positively related. However, in order to expect, all Armed Forces personnel to take risk of their life, there is a requirement to institutional-level transformation of militaristic goals, values, strategies, policies, warrior codes and expectations of service members (Cheryl Abbate,2014). Means of attaining a secure state is fighting and winning wars (Hartle 1989: 30).

<u>4.2.2 System`s Theory</u>
In this context of this study, with reference to this theory, the Dependent Variable selected was Organizational responsiveness and performance, the Independent Variables were Modular organizing, Socio-Political-Economic changes& Organization technologies. Mediating Variables selected were Flexible management control system, Organization stability, Modernization & Effective Communication. Moderating Variable chosen were Adjustment to changes, Organization Flexibility &Organization sensing.

<u>4.2.3 Organizational Behavior theory</u>
The comparative organization culture of Indian Armed Forces & CAPFs and Central Government services were studied using ``Cultural Theory of Organization``. It was found that both these organizations were exclusive and different. Grid/Group Analysis (Mary Douglas ,1970,1978) and Cultural Theory concept (Thompson et al.1990) were used. The former focused on Individual behavior, perception, beliefs, values which were controlled by Group Commitment and Grid Control and the latter assessed the different social environments which affect individual beliefs and influence individual choice.

The following model was used for Grid/Group Analysis:

GRID

B	C
A	D

WEAK STRONG

GROUP

<u>Group</u> It is the horizontal co-ordinate, represents the extent to which people are driven by or restricted in thought and action by their commitment to a social unit larger than the individual. High group strength results when people devote considerable time and attach great importance to interacting with other members of their unit. In general, the more things they do together, and the longer they spend doing them, the higher the group emphasis. Conversely, an emphasis on 'doing it my way' also implies that interaction (networking) becomes optional, rather than normative.

<u>Grid</u> It is the vertical co-ordinate, is the complementary bundle of constraints on social interaction a composite index of the extent to which people's behavior is constrained by normative role differentiation

Weak Grid/Weak Group QuadrantA. It represents a social context dominated by strongly competitive conditions, volatile circumstances and a prescription for individual autonomy.

Strong Grid/Weak Group Quadrant B. It is a social context dominated by insulation. In its extremity, the sphere of individual autonomy is minimal with little scope for personal transactions. **Strong Grid/Strong Group Quadrant C**. It is a social context with two strong controls: of individual behavior and of the group boundary.
Weak Grid/Strong Group Quadrant D. It is a social context in which the external group boundary is typically the dominant consideration and the social experience of the individual is shaped by the 'we' versus 'them' ethos.

Grid/Group Analysis on two organizations.
The three main Branches in the Indian Armed Forces are the Army, the Air Force, and the Navy.Analyzing their individual role, we can try to place them in respective Quadrants as explained above. We infer:

The Navy is the smallest of these forces. Hence, Navy is clearly well placed in Quadrant **C**. Its core mission is clearly group dependent: there can hardly be a tighter boundary than around a vessel at sea; interpersonal interactions are condensed in space, frequency and spread over a long span of time (Strong Group). The Navy is highly structured in terms of role specificity, expertise (professionalism) and areas of responsibility (Strong Grid). The Air Force is in Quadrant **C**, however the pilots, are free of constraints of traditions, regulations and norms (Weak Grid) as well as of the impositions of group expectations and pressures (Weak Group). They will be placed in Quadrant **A**. The Indian Army consists of many Fighting Arms and Support Services. All of them have specific role to play during war and peace. To take an example, the Infantry would be placed in Quadrant **D** since it has strong Group due to motto of espirit-de-corps but has a weak Grid since dependence on technology is less and chain of command is localized whereas the Tank Regiments are found suitable to be placed in Quadrant **B**. On the other hand, the Artillery Regiments can also be placed in Quadrant **B**.

On the other hand ,majority of CAPFs whose primary task is to maintain Internal security within the country, are largely to be placed in Quadrant **C** only (Strong Grid and Strong Group).
Further we found that an overall, element of flexibility is built in variety of tasks to be executed by Indian Armed Forces such as: Response to Internal Security ,Response to External Threat ,Physical Fitness Requirements, Orders and Implicit Obedience, Implementation of Postings ,Ownership of Assigned Task as individual and as a Group, Collective Training vs Individual Training ,Organization Culture. Based the type of role assigned and situation existing, their position in Grid can vary accordingly. This level of flexibility was missing in CAPFs.

5. HYPOTHESIS

The fact that Armed Forces make up for 30% of Government employees and their representation in CPCs has never seen light of the day post the second CPC is a harsh reality. As such the four hypotheses for the research are as follows:
(a) There is an increased terms of engagement for the Indian Armed forces.
(b) There is a constant decrease in the Pay parity between Armed Forces and other CAPFs over the last six decades.

(c) The decline in the societal status of the armed forces is significant.
(d) The Indian Armed forces always deliver beyond the expectations.

6. JUSTIFICATION OF RESEARCH

After Independence, the Armed Forces were entrusted upon responsibility of defending the country against external threats. CAPFs were raised for ensuring internal peace in the country. Despite the same, the operational culture of the CAPFs has remained for guarding and protection duties with their outlook remaining Defensive rather than Protective. Their employment is manpower oriented and not as a force in being. Even though their strength has considerably increased along with better equipment and huge investment on their training. They still carry the tag of 'Constabulary' duties, using baton and tear gas. No ideological shift has taken in their training from Lathi charge to high intensity Counter Insurgency operations. The Armed Forces today have more complex tasks than ever before; it has to be ready for the full spectrum of conflicts ranging from maintenance of law & order, counter terrorism and proxy war, to a scaled conventional war under shadow of or Involving Weapons of Mass Destruction. The 21st century marks the beginning of a protracted era of geopolitical volatility that presents itself as an illusion of peace to the complacent. The lowering of status and remuneration of the Indian armed forces is an attack on the very insurance that guarantees the liberties endowed to all citizens of India.

7. RESEARCH QUESTIONS

The questions that the research in its course will analyze are as follows: -
(a) What is the Mandate of the Government for the role of Armed Forces and CAPFs?
(b) Genesis of problem by virtue of which there has been a continuous downfall of Armed Forces in terms of status, financial position & extension of privileges.
(c) Pattern of engagement, training, pay structure, expansion, budget outlays of Armed Forces in comparison to CPMFs since Independence till date.
(d)Origin of CPCs, their highlights in comparison to Socio-political & economic changes in India since Independence and their bearing on Armed Forces in general.

8. RESEARCH METHODOLOGY

8.1 Coverage. The research covers the perspective for Armed Forces vis-à-vis CAPFs by the Political, Bureaucratic and Civil Services Class. The Respondents covered 20% Junior Officers ,40% Middle level and Senior level officers of both organizations respectively. Their perception on the field of research was sought. Stratified Random Sampling technique was used.

8.2 Data Collection. The Primary data was collected by Questionnaire, Case Study and Survey from within the Forces and also civil society. The secondary data was collected from existing reports and seminar proceeding orders. Information and data was collected from sources as given below: -

(a) Books/ Literature from Army library and the library at Pune University were the main repository of data. Books and papers by various authors, both Indian and foreign were studied. Also, various Government orders, Stipulations and Operating procedures were studied. Various Research papers on the subject in various indexed journals and various seminar proceedings were referred to.

(b) Institutions. Army Training Command (ARTRAC), Centre for Land Warfare Studies (CLAWS) and relevant Directorates/Branches at Army Headquarters and Ministry of Home Affairs were approached for material.

(c) Questionnaires. Innovative questionnaire was framed to gather samples of perceptions of persons working for military, government agencies, other security agencies and civilian population to ascertain perceptions formed by people on common issues of concern.

d) Open Sources. Internet

8.3 Data Analysis

The data pertaining to field of research was collected, studied and analyzed. Various constructs (Role & Relative Strength, Rank Structure, Pay Disparity, Years of service required for promotion to next rank and key highlights of Central Pay Commission) of both organizations, Government order on Order of Precedence and data obtained from Questionnaire was analyzed.

INFERENCES FROM QUESTIONNAIRE

Question 1-5. Out of the total officers who participated in the survey, 82.6% felt that there should be rank parity between the Armed Forces and Central Government Services. In case of awareness regarding WoP, 63.5% were aware of it. A total of 98.1% officers agreed that the status of the Armed Forces has declined over the years. In case of linkage between status and, pay and allowances, 94.2% officers agreed that there is a link between the two. 98.1% agreed that there is

disparity in Grade Pay of the Armed Forces and Central Government Services.

Question 6-10. 92.3% officers agreed that status equations of Services officers have been decided arbitrarily and do not reflect the same in terms of the pre-revised pay scales, the length of service and peculiar terms and conditions of the service. 63.5% Strongly Agree/Agree, 15.4% Neutral and 19.2% Disagree/Strongly Disagree that the grade pay should be taken as an Inter Cadre determinant for Rank Parity. A total of 92.3% agreed that the WoP should be redefined in a reasonable manner removing existing disparities. 63.5 % strongly agreed ,15.4% were neutral and 19.2% disagreed to delink grade pay and status determination and establish equations with each post on the civil side with military ranks. 90% respondent agreed that the rank parity issue has major implications & it is important for functioning in a joint environment and needs to be resolved at the earliest.

Question 11-15. In this part, 90% of the respondent officers agreed that rank parity is necessary in a joint environment for efficient functioning. It has been aggravated due to disparity in the grade pay, civil counterparts have benefitted by grade pay. The status of Armed Forces has declined due to an arbitrary extension of grade pay to the Central Government services and, there has been a deliberate attempt by the bureaucracy to undermine the Armed Forces by pegging themselves at a
higher level in each of the Pay Commissions.

9. DISCUSSION

It has emerged that the IAS, IPS and majority of the Organized Group-A services have a flat rank structure up to, at least, Joint Secretary level and enjoy drastic edge over the Armed Forces for promotion to higher ranks. The promotion thresholds of IAS and IPS are almost identical and have a huge advantage in terms of length of service on which the officers are promoted to various ranks, this was not the case of Armed Forces. For example, the IAS and IPS officers pick up the rank of NFSG (Director) after completing 13 years of service while the Armed Forces officers pick up the equivalent rank (Colonel) between 15-18 years of service. The adverse pyramid rank structure and promotional thresholds of the Armed Forces officers entail lesser grade pay / pay scale at same length of service as compared to the IAS, IPS and Organized Group-A services, thus, drawing lesser overall pay over large years of service till superannuation. A large number of Armed Forces officers superannuate at an age of 54 at a grade pay of Rs 8,700, thus, drawing much lesser pension as compared to their civilian counterparts from the IAS, IPS and Group-A services who superannuate at an age of 60 years with a minimum grade pay of Rs 10,000 HAG. This results in huge dual disadvantage, in terms of status and financial parity for the Armed Forces, as compared to the IAS/ IPS/ Group-A services. The new Warrant of Precedence of 1979, disregards executive responsibility and length of service. The number of articles has also been reduced to 26, when the size and complexity of the system has vastly increased. The decline in rank and order of precedence of the Armed Forces since Independence is amply clear with few examples (a) Posts of IG Police were upgraded and a new rank of DG Police was created in the early seventies and placed below Additional Secretaries in the Warrant of Precedence (Article 25). (b) Director Generals of BSF, CRPF, CISF, ITBP and SSB are also placed one below Lt Gens in Article 25. However, they assume the status of Army Commanders since they are in the Apex scale. (c) Lt Gens who were superior to the Heads of police in states have remained static in their position whereas DGP have been placed in HAG + scale while one DGP per state has been placed in the Apex scale. (d) IG Police in the 1947 Warrant of Precedence was below Brigadiers. They have subsequently been brought at par with Maj Gens. (e) A Major has been granted grade pay of Rs 6600, which is less than a Civil JAG officer, his counterpart. (f) A Chief Engineer (civilian cadre) in the Military Engineering Services is placed in a grade of Rs 10,000 and given the status of a Joint Secretary, yet the same appointment can be held by a Brigadier who is denied a similar status equation. It is a norm on the Civil side that cadre structure is reviewed every five years in order to meet the functional needs and legitimate aspirations of the members of that service, in terms of timely career growth and to avoid frustration and de-motivation. In contrast, the cadre review in the Services has been carried out only once in 2004 by the AV Singh Committee and recommendations of same have not been fully implemented. The above points towards a negative bias and gradual downfall of the elite Armed Forces in terms of privileges, pay, status and other financial benefits since independence. Keeping the results in mind, we fail to reject the Null Hypothesis as mentioned in preceding paragraphs.

10. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The paper tried to provide an in-depth analysis of all dimensions of Defence Forces pre-& post-independence era. Also, it harps upon the importance of Armed Forces for any progressive nation while trying to establish the reasons for selective upward push for Central Services & CPMFs vis-à-vis Defence Forces. Other factors such as Socio -Economic-Political in context of Armed forces can be studied for future research. Also, the model followed in developed nations for Armed Forces and its CAPFs and equivalent organizations could be further analyzed and lessons learnt.

11. CONCLUSION

Large scale employment of the Armed Forces in CI ops, aid to Civil authorities, proxy wars, declining Political support system, alienation of Forces from main stream, systematic degradation of Forces by Bureaucratic chain of command, compounded by down fall in status, financial benefits, privileges to Armed Forces Vis-à-vis Central Services & CPMFs by various Pay Commissions, non-representation of services in CPC have affected the functioning of Indian Armed Forces. We have seen many challenges emerging in retention of the trained manpower in the Forces in the past which has an indirect bearing on national defence. The fabric of Civil-Military relations in India is showing signs of wear. These trends if not arrested and corrective timely actions by political masters may lead to a point of no return.

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13. APPENDIX

TABLE 1: Relative Strength of Armed Forces and CAPFs

Force	Officers	Sub- Officers	Other Ranks	Total
CRPF	4000	34629	256067	2,94,696
BSF	3941	26918	217952	2,48,811
ITBP	1234	8196	72384	81,814
SSB	1168	4319	71281	76,768
CISF	1135	18268	108235	1,27,638
NSG	1,000	1000	7,503	9,503

Service	Officers	Other Ranks
ARMY	40,000	11,32,000
AIR FORCE	12,000	1,30,000
NAVY	9,000	52,000

TABLE 2: Rank structure and Promotion parameters of Armed Forces and CAPFs

S No	**Rank In IPS**	**Equivalent Rank in CAPFs**	**Insignia**	**Years of Service Required In Present Rank For Next Promotion**
i	DSP	Assistant Commandant	3 Stars	06
ii	ASP	Deputy Commandant	National Emblem	06
iii	SP	Second in Command	National Emblem plus One Star	06
iv	SSP	Commandant	National Emblem plus Two Star	03
v	DIG	DIG	National Emblem plus Three Star	04
vi	IG	IG	Crossed Sword plus One Star	03
vii	ADG	ADG	Crossed Sword Plus National Emblem	02
viii	Special DGP	-	Crossed Sword Plus National Emblem	02

ix	DGP	DG	Crossed Sword Plus National Emblem	-
S No	**Army/Air Force/Navy**		**Insignia**	**Years of Service Required In Present Rank For Next Promotion**
i	Lieutenant		Two five-pointed stars.	2
ii	Captain		Three five-pointed stars.	4
iii	Major		National emblem	7
iv	Lieutenant Colonel		National emblem over five-pointed star	2
v	Colonel (SELECTION GRADE)		National emblem over two five-pointed stars	10
vi	Brigadier (SELECTION GRADE)		National emblem over three five-pointed stars in a triangular formation.	7
vii	Major General (SELECTION GRADE)		Five-pointed star over crossed baton and saber.	4
viii	Lieutenant General (SELECTION GRADE)		National emblem over crossed baton and saber.	4
ix	General		National emblem over a five-pointed star, all over a crossed baton and saber.	3 years as COAS or at the age of 62, whichever is earlier.

TABLE 3: Salary structure comparison of Armed Forces and CAPFs

Years of Service (Armed Forces)	ARMED FORCES Pay Band	Grade Pay	Years of Service (IAS/IPS/ CAPF)	IAS & IPS Pay Band	Grade Pay
Initial Year	15,600-39,000	5,400	Initial Year -4	15,600-39,100	5,400
1-2	15,600-39,000	5,400	-	-	-
2-6	15,600-39,000	6,100	4-9	15600-39100	6,600
6-13	15,600-39,000	6,600	9-13	15600-39100	7,600
13-15	37,400-67,000	8,000	13-14	37,400-67,000	8,700
15-25	37,400-67,000	8,700	14-16(IAS)	37,400-67,000	8,900

			14-18(IPS)	37,400-67,000	8,900
			16-25(IAS)	37,400-67,000	10,000
			18-25(IPS)	37,400-67,000	10,000
25-32	37,400-67,000	8,900	25-26(Both IAS &IPS)	67,000(ANNUAL INCREMENT @3%)-79,000	-
			26-30(Both IAS &IPS)	75,500(Annual Increment @3%)-80,000	-
			30- Till attaining age of 60	80,000 Fixed	-
32-36	37,400-67,000	10,000			
36-Till attaining age of 60 years for Retirement		1/3rd of Lt Generals 75500-(annual increment @ 3%) –80000 BALANCE Lt General: 67000-(annual increment @ 3%) -79000			
3 years as COAS or at the age of 62, whichever is earlier		Pay Band 90,000 fixed at equivalent to Cabinet Secretary of India			

TABLE 4: Main highlights of Central Pay Commissions

FIRST PAY COMMISSION

Laid the foundation for Salary Structure of Government Staff including Armed Forces.

Major role played by Armed Forces Serving Officer in the panel. Terms of Reference for formulating Pay structure of Armed Forces dictated by Armed Forces Representative.

SECOND PAY COMMISSION

The pay structure and the working conditions of the government employee were crafted in a way so as to ensure efficient functioning of the system by recruiting persons with a minimum qualification.

Major role played by Armed Forces Serving Officer in the panel in modifying the pay structure and drafting new Term of Reference taking feedback from the three services in last 10 years and also following Govt guidelines.

IAS representative included in the pay commission.

THIRD PAY COMMISSION

Commission without Armed Forces Representative.

Terms of Reference for structure of emoluments, the retirement benefits for Armed Forces drafted by IAS representative without taking Armed Forces on board.

'Relativity' of Armed Forces officers and IPS officers, whose wages till for similar years of service were less than that that of Armed Forces officers with similar years of service, noted that "the relativity" with IPS was "only a working method of devising scales of pay for the service officers which did not mean that the functional role of the two services were similar".

The job profile of IPS officers equated with Armed Force officers and showcased that a working relationship did exist between the two organizations.

Declared that the pay structure of the IAS with its long pay scales was particularly unsuitable for Armed Forces officers.

Military pension was de-linked from military service conditions and equated to civil pensions.

Government, took an "ex-parte" decision and terminated One Rank, One Pension (OROP), the basis of military pensions.

Increased the pension of civilians, who retired at 58, by 20 percent, from 30 to 50 percent; reduced the pension of soldiers by 20 percent, from 70 to 50 percent of basic pay.

Downgraded the status of soldier by equating "infantry soldier with less than three years' service" with a "semi-skilled/unskilled labor".

Sacrifice of Armed Forces in 1962,1965 and 1971 wars for the Nation was forgotten.

FOURTH PAY COMMISSION

Commission without Armed Forces Representative.

Implemented concept of 'Rank Pay' for Armed Forces officer. The 'Rank pay', which varied from 200 to 1200, was not an additional pay, but amount deducted from pay grade. This ended long established Military IAS equations. IAS Officers with 14 years of service, who were formerly in the same pay grade as Majors, with 14 years' service, were equated to Brigadiers, with 24 years of service.

No Terms of Reference for Armed Forces mentioned.

Protracted legal battle at various Courts, by Armed Forces Retired Officer, Supreme Court finally declared the 'rank pay' concept illegal and quashed it. However, damage was already done.

FIFTH PAY COMMISSION

Commission without Armed Forces Representative.

The World Bank criticized the Fifth Pay Commission, stating that it was the 'single largest adverse shock' to the public finance of the nation.

25 percent officer's post in the CAPFs from Armed Forces by Lateral Shift to overcome stagnation were recommended, but not implemented.

SIXTH PAY COMMISSION

Commission without Armed Forces Representative.

Non-Functional Upgrade sanctioned for IAS Civil Servants to alleviate stagnation.

OROP for IAS Civil Servants at Apex Scales.

Further downfall of Armed Forces in Order of Precedence.

SEVENTH PAY COMMISSION

Commission without Armed Forces Representative.

Pay Commission Recommendations rejected by Armed Forces as issues of Status, Financial benefits, Privileges, Pension, Civil- Military and CAPFs- Military issues left unresolved.

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THE ECOTOURISM PRACTICES: TRANSFORMING SOCIOECONOMIC IMPACTS AT VELAS VILLAGE

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ABSTRACT

Environmental pollution is severe and critical in this age of 21st century and hence calls for eco-friendly techniques in all industrial and business activities. Tourism is one of the prominent areas of foreign exchange. Eco-tourism model is developed to position tourism in a different way as well as an attempt to reduce pollution. Government of Maharashtra has framed various steps and formulated ecotourism policy to promote it. Green travel or ecotourism provides a model that has the potential to remake the travel industry, bringing environmental, economic and social benefits to the local communities. It also provides a meaningful experience to tourist’s than conventional tourism offers. But critics warn that even the well-managed ecotourism threatens to destroy the environmental and social changes accompanied with it. Thus it is important to understand the socio-economic impacts of ecotourism for a sustainable development of natural resources. Present paper highlights the practices in the Konkan region of Maharashtra and critically evaluates them to arrive at workable solutions that can help in developing the economic and social conditions of the local residents. Further recommendations are proposed in a way to improve such tourism models.

KEYWORDS: Eco-tourism, Socio-economic impact, Public policy, Environment, Tourism

1. BACKGROUND

Environmental factors play a major role for business development and sustainable growth. Industries with green techniques of manufacturing and productions have positioned themselves as a better brand. But this environmental parameter is not restricted only to production houses. It is even quite evident in the tourism activity with the popularity and emerging trends in green tourism. Ecotourism has certain features which vary greatly from the traditional tourism. It mostly involves local communities who are projected as persons of special interest in the tourism activity. It is generally on a smaller scale as compared to traditional tourism activity. It mostly involves flora and fauna and living in the natural environment.

Various advantages have being noted in this type of tourism activity. They are:

- Protection of environment, flora and fauna
- Empowering local community and helping them in earning their livelihood
- Exposure of the scenic environmental beauty of the particular region
- Creates environmental awareness among the people
- Earns foreign revenue and creates a tourist destinations

Tourism is often viewed as an expression of human behavior. When tourists find a welcoming and friendly destination, they are more likely to return and recommend those destinations to friends and relatives.

With rising awareness about the need for nature conservation, there has been more inclination towards nature friendly tourism. Ecotourism is not a new term as it originally appeared in the late 1960s and early1970s (Nelson, 1994). The idea of ecotourism was generated in an effort to identify the probable causes of inappropriate use of natural resources made by the tourists. The World conservation Union (IUCN, Brandon, 1996) defines ecotourism as a responsible travel that would promote keeping the natural areas undisturbed. It also emphasizes on social and economic development of the local people in that area. Ecotourism is also defined as responsible travel to natural areas that conservers the environment and sustains the well-being of the local residents.

According to World Tourism Organization (UNWTO), ecotourism involves travelling to natural areas with the aim of enjoying, admiring and studying the biodiversity and the cultural aspect of the area. It also mentions that a positive involvement of the locals is the key to maintaining the ecological balance. In this era of environmental consciousness, ecotourism has tremendous scope for global tourism industry (Roberts and Thanos, 2003).

Eco-Tourism is a broad term to be understood. It is very much essential to understand what are features and characteristics of eco-tourism. The paper (Mark B Orams, 1995) reviews various definitions assigned for eco-tourism. It is important to understand the definitions of eco-tourism for policy makers so that they can frame effective and required rules, regulations and policy depending on the need. The paper (Goodwin, 1996) says that definition of eco-tourism should be clear for conservations. Tourism industry is an important sector contributing to the economy. But environmental degradation is always a question been raised along with tourism. The paper (Isaacs, 2000) described eco-tourism as “proxy market” where tourism preferences can be achieved without compromising environmental degradation. It also states that in eco-tourism, costs can be reduced. The paper (Ayala, 1996) suggests that by introducing eco-tourism, international tourism industry can act majorly in conservation.

Again accommodation in eco-tourism is very different to conventional tourism. The tourism mainly involves staying with the local community and spending time at spot rather than having accommodation in luxurious hotels. The paper (Wight, 1997) speaks of accommodation in eco-tourism, indicating eco-tourists are more inclined to adventure accommodations and are sensitive to environment and highlights supplies in some destinations does not match demand.

One of the major features of eco-tourism is involvement of local community. The work (Scheyvens, 1999) highlights the way the local people get impacted from the eco-tourism. Community based eco-tourism is also growing importance. It is important to understand when such tourism is significant. The study (Kiss, 2004) analyzes and points out the conditions when community based ecotourism is better and acts efficiently when compared to other methods of biodiversity conservations. Sundarban areas have been described as world heritage site for mangrove forests. The paper (Salam M. A. et al, 2000) highlights that nature oriented tourism can be a way in protecting forests.

Conservation of nature plays a major role in tourism. The paper (Valentine, 1993) supported by examples in Micronesia comes up with a definition of tourism with a link between conservation of nature and eco-tourism and suggests some guidelines for establishing eco-tourism. The work (Ioppolo, G., et. al., 2013) discusses about sustainable eco-tourism program in Italy.

Lives of the local residents at such destinations are greatly benefitted. The support of the local community towards tourism development is essential for is planning, functionality and sustainability (Uysal &Jurowski, 1994). This implies that the quality of life (QOL) of the local residents of a tourism destination should be a major concern for the community leaders, policy planners and the other related stakeholders. When the outcome of tourism development in any area results in better QOL, the local community tends to support the tourism development and hence creates a sustainable model. Hence, it is important to understand the impact of ecotourism models on the socioeconomic status of the local residents.

2. ECO-TOURISM IN MAHARASHTRA

Tourism in Maharashtra has achieved great and significant value. Eco-Tourism plays a major role in the domain of tourism. Government of Maharashtra has formulated Eco-tourism Policy in the year 2008. The policy highlights about employment generation, protection of environment and culture, promotion of sustainable tourism in the state and provision of infrastructure. The Ecotourism policy also defined the role of Maharashtra State Tourism Development Corporation (MTDC), private tour operators and government .It has provision of training programs for the local people to develop alternative livelihood and income generation. There are fragmented approaches towards tourism development; hence a planned and strategic ecotourism management system needs to be identified. The major activity by the government in the process of eco-tourism is mostly in the preserve and promotion of tiger reserve. The Konkan region in Maharashtra refers to a narrow belt between mountain and Arabian Sea, length near about 750 km. It is also known as a land of Lord Parshuram and is a part of Maharashtra. Konkan consists of five districts, in the North is Thane district, in the center are Brihan Mumbai and Raigad district and in south are Ratnagiri and Sindhudurg districts. Konkan Tours Co. Pvt. Ltd. and its tourism development branches, such as Konkan Paryatan Charitable Trust, Kokan Paryatan Mahasangh, are working for the tourism development in Kokan region, to generate employment for local youth.

How is this "Eco-Tourism" and not "conventional tourism"?

1) It involves local communities
2) Uniqueness of the spot such as flora and fauna, beaches.
3) Protection of the environment is a major concern.

4) Accommodation of tourists at the tourism spot mixing with the local culture unlike in luxurious hotels.
5) Involvement and enjoyment of various activities organized by local communities which are specific for such area.

Velas is a small coastal town, 330 kms from the state capital Mumbai in the Ratnagiri district. The village is situated near the estuary of the Savitri River. The approximate area is 8.3 sq. kms. and the approximate population is 3064. The number of listed households is 578. The village has no industries around hence; cultivation and pastoral practices are the prevalent economic activities. The horticulture produce of Velas comprises of cashew nuts, betel nuts, coconuts and mangoes. Rice is the main seasonal grain. The local market Mharpal is 18 kms from Velas.

This village came to fame when the nests of the Olive Ridley turtles (Lepidochelys Olivacea) were conserved here. An NGO named Sahyadri Nisarg Mitra (SNM) played a vital role in conserving these nests and educating the locals about the importance of these nests. Since its inception in 1992 SNM has conserved over 680 nests till 2011. This conservation program led to the beginning of the Turtle festival in Velas. This festival was started in 2007 and continues every year till today during the nesting season. It is spectacular to watch the hatchlings emerging from their nests and taking their first step towards the sea.

On becoming adults, these hatchlings return to lay their eggs at the same place where they were born. Thus, velas is a naturally chosen home of these turtles and hence must be conserved through ecotourism. The tourist’s arrival will improve the QOL for the locals and the ecotourism would promote the conservation of these turtles, thus creating a win-win situation for both.

3. RESEARCH METHODOLOGY

As social and economic status plays a very important role, the paper attempts to investigate on the lines of such variable for eco-tourism proposal at Velas village. The paper studies the various parameters that affect eco-tourism. The secondary data has been collected from research journals and relevant government reports. Primary data is collected through a survey by using questionnaire as the research instrument. The research design is inferential in nature and draws upon both primary and secondary data. Sample size of 102 is taken via random sampling technique. Firstly, to understand the economic aspect of the village; the various observed parameters are employment opportunities (EO), desired jobs (DJ), variety of jobs (VJ), investment, standard of living (SOL), infrastructure and health & hygiene (HH). Secondly, the objective is to understand the social aspect of the village. The variables taken into considerations are over crowdedness, hygiene & cleanliness. A five-point Likert scale is considered to have adequate sensitivity.

Null hypothesis is created. Further one-way Anova is conducted to understand the level of significance of various parameters.

4. DATA ANALYSIS AND INTERPRETATION

The metrics deployed for measuring the economic impact of ecotourism in velas can be categorized into three sub dimensions: employment generation, revenue generation and quality of life. For the purpose of this study, all the three dimensions were measured by a five –point Likert type scale (Strongly disagree equals one and strongly agree equals five).

Employment Opportunities

- Ecotourism has created employment opportunities for the local natives of Velas village
- Ecotourism has provided highly desirable jobs in the community
- Ecotourism has created a variety of jobs for the local residents

Revenue Generation

- Tourists arrival has benefited the local business
- Ecotourism helps SNM to generate more investment to the community's economy.

Quality of Life

- Standard of living has improved due to tourists spending in the community
- Improved infrastructure and public services for the local residents.
- The health and hygiene facilities have improved in the village

It is necessary to examine local business getting benefitted from tourist arrival is significant enough in creating employment opportunities, desirable jobs, variety of jobs, investment, standard of living, infrastructure and health and hygiene. One way anova test is conducted for investigation.

The null hypothesis may be

H_0= There is no significant difference between local business getting benefitted from tourists arrival and other mentioned parameters.

Table 1: Result of ANOVA Test on economic variables

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
EO	Between Groups	29.160	3	9.720	7.181	.000
	Within Groups	132.654	98	1.354		
	Total	161.814	101			
DJ	Between Groups	14.138	3	4.713	3.542	.017
	Within Groups	130.381	98	1.330		
	Total	144.520	101			
VJ	Between Groups	5.553	3	1.851	1.548	.207
	Within Groups	117.153	98	1.195		
	Total	122.706	101			
Investment	Between Groups	3.704	3	1.235	1.867	.140
	Within Groups	64.815	98	.661		
	Total	68.520	101			
SOL	Between Groups	57.825	3	19.275	1.207	.311
	Within Groups	1564.489	98	15.964		
	Total	1622.314	101			
Infrastructure	Between Groups	14.895	3	4.965	8.574	.000

	Within Groups	56.752	98	.579		
	Total	71.647	101			
	Between Groups	12.269	3	4.090	5.295	.002
HH	Within Groups	75.692	98	.772		
	Total	87.961	101			

The table 1 highlights the results of one way anova test between the significance of local business getting benefitted and various others mentioned parameters.

The factor local business getting benefitted and employment opportunity has significant relation. The significance value is 0.000 which is lesser than 0.05. It is evident that development of business will make employment opportunities better. The variable desired job also show a similar findings as significance value is 0.017 lesser than 0.05 thus highlighting local business getting benefitted and desired jobs is significant.

The variable variety of jobs with local business does not show any significance as significance value is 0.207 which is higher than .05. It is clear that as the eco-tourism industry will offer a particular type of job, getting variety of job is not possible in a particular sector.
Investment has no significance with local business getting benefitted as the significance value is 0.140 which is higher than 0.05.

The standard of living do not have significance with benefitting the local business as the significance value is as high as 0.311 which is greater than 0.05. It is understood that standard of living has much less to say in development and improving local business.

Infrastructure has notable significance with local business getting benefitted as the significance value is 0.000 which is smaller than 0.05 thus showing infrastructure developments will affect local business. Health and hygiene too showed significance in benefitting local business as the significance value is 0.002 which is lower than 0.05.

The results highlighted that employ opportunities, desired jobs, infrastructure and health and hygiene has significance as the significance value is less than 0.05 thereby rejecting the null hypothesis.

Social impact variable
The metrics deployed for measuring the social impact of ecotourism in velas can be categorized into two sub dimensions: Social problems and Local services.For the purpose of this study, both the dimensions were measured by a five –point Likert type scale (Strongly disagree equals one and strongly agree equals five).

Social problem
- Ecotourism makes the area overcrowded and unpleasant
- Ecotourism disturbs the hygiene and cleanliness of the area

One way anova test is to be done to understand that whether there is a impact of the over-crowdedness of the area to the hygiene and cleanliness. The null hypothesis formulated as

H_0= There is no significant relation between the area being over-crowded and disturbing the hygiene of the place.

Table 2; ANOVA test results on social variables

ANOVA

HC

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	67.500	3	22.500	23.046	.000
Within Groups	95.677	98	.976		
Total	163.176	101			

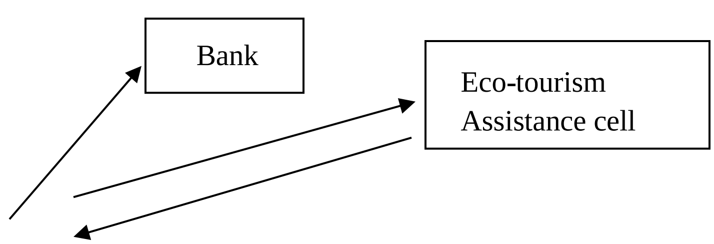
The table 2 depicts the results of one-way anova test between places getting over-crowded with cleanliness of the place. The significance value is less than 0.05 thus rejecting the null hypothesis, indicating that when the area being over-crowded; it has an impact in the hygiene and cleanliness of the eco-tourism spot.

5. Concluding recommendations

The eco-tourism activity is reviewed and study is made in the development of eco-tourism spots at the konkan belts. Social economic impact of Velas village is also studied and statistical tests resulted in some important findings. It is noted that tourist's arrival benefitting local business is significant enough with employment opportunities, getting desired jobs, infrastructure development and improving health and hygiene. Getting benefitted and various others mentioned parameters. The results also highlighted that over crowdedness and hygiene and cleanliness of the place are also significant. This fact makes it clear that policy makers should keep in mind the hygiene factor when they plan to improve such eco-tourism destination.

Further a block diagram followed by explanation is framed out to understand the information management in the eco-tourism activity. Measures and policy to be made by policy makers are listed out.

6. SUGGESTED ACTIVITY FOR INFORMATION MANAGEMENT IN ECO TOURISM



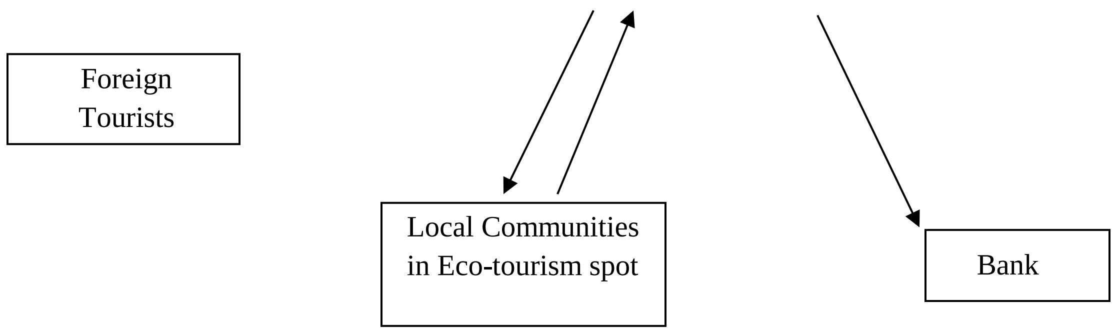


Fig. 1 Block Diagram for managing information in Eco-tourism

The fig. 1 shows the block diagram for information management in eco-tourism. The tourists ask information from the eco-tourism assistance cell for booking and reservations. The cell in turn further asks for confirmation whether to proceed with the booking from local communities. The local tourism cell gives confirmation which is further conveyed to tourists who had earlier asked for the information. The assistance cell further asks the tourist to register and make its bookings through bank. Further certain amount should be remitted by the assistance cell to the local tourist cell to start with the necessary arrangements for the tourists.

What public Policy can Government make?

1) Government can declare the areas of Velas as eco-tourism spots & identify more areas.
2) Special cells in the department of tourism with offices at international airports and other identified spots can be created to provide assistance to international tourists for konkan eco-tourism.
3) Assistance cells for tourists must be opened to explain queries of international tourists and special booking window online must be made available.
4) Assistance both technical and financial should be provided among the local communities promoting and assisting such eco-tourism activities in the villages.
5) The responsibility of hospitality facilities must be vested among the local communities. The government should only help in facilitating the eco-tourism activity.

The tourism in the konkan belt should also be viewed from ecotourism perspective as this would help to conserve the biodiversity and also improve the social and economic life of the people living in such regions.

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DEMYSTIFYING THE METAMORPHOSIS OF THE BANKING SECTOR DUE TO INEVITABLE DISRUPTIVE FORCES

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ABSTRACT

In the last couple of decades, economies have developed at a colossal speed and one would be unable to discover the innovations that have been concocted out of that economy. That is on the grounds that the development has been driven by opening a colossal amount of human capital that they weren't utilizing and transforming the nations into the world's single platform. In their next phase of global development, unique disruptions will matter since all the low hanging effortless designs have been picked. They require diligent research and creative brainstorming to help them concoct new and unique ideas, not simply duplicates of what the world has always encountered. Research and development to enkindle innovations impacts how successfully both cash and human capital are distributed in the economy. Investments in research and development are a long haul venture with a minimal direct effect in the economy, and it is dependent upon the economy having the potential to make an interpretation of these disruptive designs into fascinating and blooming propositions. With innovations many successful remedies can be conveyed to real issues confronted by the economies. Any disruptive innovations not only tackles exhibit issues but also keeps the nation mindful of future patterns, and subsequently can shape itself accordingly for circumstances that are going to arise. Some fervently contend the benefits of boosting innovations in accordance with customer reviews and needs; alternately some contend that genuine advancement is made by independently skilled visionaries who overlook customer reviews and rather advance constructively and exclusively with respect to their prophetic vision for a superior future. What will banks do now to get ready for these future situations?

KEYWORDS

Artificial Intelligence (AI); Marketplace lenders (MLs); Blockchain; Automated Clearing House (ACH); Perceived Risk

1. INTRODUCTION

Disruption in banking is the theme of the day. Not astonishing maybe, if one is to consider the existing sentiments within Silicon Valley startups and banking industry that “Fintech” firms are about to metamorphose the banking industry for the better.[1]

Whether one subscribes to this perspective or not, nobody can deny the fact that many aspects of the capital markets as well as banking industry are under a serious attack by new competitors, who fervently believe in the disruptive potential of technology to overturn conventional wisdom and transform the entire banking industry. The scale of this attack on incumbent banking firms is also stunning. Thousands of startups globally are hunting for opportunities to exploit any vulnerabilities in the existing banking system.[2]

However, the banking industry doesn’t change so easily. Mostly, the change is initiated and driven by market forces or changes in regulatory environment. The imagination of a proactive change is often thwarted by the huge barriers in form of the decades-old systems and legacy technological architecture which support various institutions in the industry.

This phenomenon is both a boon and a bane. The major attraction for today’s disruptors is the inefficiencies in current processes and systems. However, the fact that all the vital elements of the new infrastructure have to be built from scratch, is acting as a huge deterrence to the ambitions of the disruptive players. Developing and successfully carrying out the enormous and complex banking business requires not only gigantic amount of resources, but also credibility among counterparties, consumers, and regulatory authorities.

Nonetheless, banking and capital market firms are trying hard to actively participate in this wave of disruption, while simultaneously tackling the newer and stricter regulations, thanks to the recent financial crisis.

Obviously, no one can accurately predict how the industry will transform due the combination of various disruptive force. However, based on the existing knowledge and information, we attempt to postulate certain probable scenarios in this paper.

As a result of increased automation, efficiencies will be enhanced across the spectrum of systems and procedures. As the time passes, the overall customer experience will only become better, however, the incumbent firms will lose the control as digital customer experience will become more prevalent. We also foresee an intense competition between traditional firms and the “Fintech” disruptors. Only those firms which are humble enough to accept the reality and engage in collaboration with the new entrants, other firms, and regulatory authorities, will thrive.

We undertook a thought exercise to reimagine and predict the transformations in the banking industry due to multiple disruptive forces. The outcome was multiple possible scenarios, such as M&A without advisers, trading without traders, banking without bankers, payments without intermediaries, among others. We admit that some of these scenarios are distant possibilities, many of them can materialize in a decade or so.

This exercise encouraged us to inspect five scenarios which we believe deserve immediate attention.

Situation 1: The new universe of payments: Blockchained, coordinated, and consistent

Situation 2: Evolution of commercial loaning: Survival of the fittest

Situation 3: Novel institutional paradigm: Collaborative and agile

Situation 4: Fluent trading: Technical superiority and exploring pertinence

Situation 5: Fate of brands: Need for automated and more client concentrated operations

Regardless how multiple disruptive forces combine to transform the banking industry, we believe that the result will be net positive for the resilient incumbent organizations. The firms which are most adaptive and showcase agility will flourish, despite the attacks on multiple fronts. We strongly believe that this metamorphosis will lead to a healthier, more dynamic, and even more competitive banking ecosystem in the next 10-15 years.

2. THE NEW UNIVERSE OF PAYMENTS: BLOCKCHAINED, COORDINATED, AND CONSISTENT

Trustworthy intermediaries have been fundamentally important to encouraging payment exchanges in modern era. As exchanges turned out to be more intricate, so did the significance of these mediators in the payments world.

However, in recent times, blockchain technologies are posing a challenge to this established system. Simultaneously, the advent and rapid development of mobile-payments, and the push toward real-time payments are compelling conventional players to rethink their part in the entire payments industry. The risk of disintermediation in the payments industry is both genuine and inescapable.

The payments business has three qualities that are alluring to potential disrupters. Initially, it is a gigantic industry, with $26 trillion in global exchanges and the expenses on the payment networks, processors, issuers, and other intermediaries amount to billions of dollars.[3] Second, the abundance of inefficiencies at practically every step of the system—legacy design and decades-old conventions give rise to impediments, risks, and pains for all involved, in both individual as well as corporate payments. Third, consumers love comfort, so any arrangement upgrading convenience without much extra cost will be highly welcomed.

It's no wonder that the payments industry has allured innumerable potential disrupters, to such an extent that the space "is increasingly crowded, even noisy."[4] Innovations have been unleashed over the entire payments range: Online, (for example, PayPal), mobile (such as, MPesa), contactless

(Apple Pay® portable payments arrangement), peer-to-peer (Square, Venmo, and so on.), cross-border settlements, (for example, Ripple Labs), also, crypto-currencies, (for example, Bitcoin).

However, the advancement that is potentially the most disruptive of all is blockchain innovation. It is a distributed ledger concept, devised initially for Bitcoin, which has now found applications beyond the crypto-currency system. Blockchain has been labelled as "remarkable," "a foundational innovation," and "a key technological innovation," much "like the Internet." As many have correctly brought up, blockchain applications can possibly metamorphose numerous aspects of our financial system, which includes payments.[5] Specifically, it could bring in tremendous efficiencies by accelerating exchanges and decreasing involved costs — all tremendously alluring outcomes for everybody involved.[6]
The energy and exhilaration encompassing blockchain innovation today is such that practically every major financial establishment is currently investigating blockchain, either as a feature of industry consortia, for example, the R3CEV initiative[7] that in late January 2016 had more than 40 participating banks, or as an autonomous activity, as exemplified by the Santander-Ripple Labs or Goldman Sachs-Circle partnerships.[8]

This strong aspiration to exploit blockchain innovation is not confined to retail payments. Truth be told, there is equivalent potential in the corporate space also, considering applications in trade finance, cross border payments,[9] and payments reconciliation.[10]

Meanwhile, as the enticement of decentralized ledger technologies keeps on mounting, the ground reality is different altogether. In US, banks and retailers are struggling while migrating to chip card technology (EMV),[11] strengthening the fact that the conventional payments architecture is a genuine hindrance to any efforts to modernize.

It can be unequivocally said that the payments industry will look considerably different as a consequence of continuous technological innovations in various domains. However, in all likelihood, the advancement in blockchain technology could be the most transformative one, and a number of real-life applications of blockchain related to payments, beyond computerized currencies, will be probably observed in the upcoming five years.

Private, permissioned chains among a limited arrangement of counterparties and customers could become widespread, with payment processors and the big banks operating and owning various private chains to enable and assist an array of payments. An uber-private chain (chain-of-chains) much like the Automated Clearing House (ACH) system is a feasible situation, however, it will need some more time to materialize, given the complexity of setting up such an architecture.

The corporate payments might have an edge over other private payments in adopting blockchain innovation, as the number of entities involved are limited and the already existing robust payment-transaction networks which corporates have with the banks. Likewise the banks will clutch to their conventional predominance in corporate payments because of their intricacy and high barriers to entry. Capital relief will become a strong motivating factor for banks to drive innovations in corporate sector as risks and other impediments in counterparty transactions reduce.

However, the migration to a blockchain-dominant payments ecosystem will depend mostly on interoperability — the capacity to which blockchain (whether private or non-private) can interact with each other. Against this backdrop, innovations can be propelled forward with the aid of increased joint efforts of various industry players, and proactive regulatory help along with industry-wide conventions and guidelines.

Bitcoin and other forms of computerized currency will probably enter the mainstream, however, only when global framework of regulations and compliance norms are established and adopted. Due to a lack of a real demand, a large number of the "coins" that exist today will disappear. However, the vision of state-supported crypto-currencies may turn into a reality in five to seven years.[12]

Maybe the continuous advancements in mobile payments and wearables will be the least shocking developments in the payments arena. Internet of Things (IoT)- empowered e-wallets may achieve the crucial proportion by 2020, transfiguring the customer experience further and making many types of customer payments uninterrupted, nonintrusive, and bother free. Be that as it may, the risk from these advancements is that the control over customer experience will be lost by the financial institutions, due to increased integration of payments into digital solutions provided and handled by other technology companies. From a branding point of view of financial institutions, this will pose a serious challenge.

As an aftereffect of these advancements, there will be increased direct payments between any two endpoints with no mediators and the payment processors being eliminated. The delays and risks involved will be eliminated due to these direct flows of payments.

Regardless of these advancements, incumbent payments firms, including both processors as well as issuers, ought to remain dominant despite the fact that the threat of disintermediation is genuine. A large chunk of the whole agenda of innovations in payments is driven by the banks themselves. The “credit” part of the credit cards, in all likelihood, remain focal to payments, ensuring the roles of issuers and banks.

However, the aggregate impact of increasing blockchaining and digitization of the payments will be an erosion in the margins on the conventional products and services, just like the compression in spreads that took place in other markets owning to digitization, forcing market players to reevaluate the value exchanges in both retail and corporate transaction. For instance, the credit card processors could widen their business to accommodate all types of payments including crypto-currencies, even though it is difficult to achieve.

Key proposals:

- First and foremost, a strategic investment in innovation is a must through hiring, partnering, and crowdsourcing. A prime determinant of success will be the aggressiveness of the firms explore the blockchain technology and create newer applications of it.
- It will be critical to partner and collaborate with other players in payments ecosystem to develop

new solutions.

- Working proactively with regulatory authorities to develop norms and protocols for these new technologies, especially surrounding cybersecurity and interoperability.
- Harnessing the consumer data and using it to offer more tailored products and new incentives to use the firm's services can negate the loss arising due to reduced control over customer experience.
- The downward pressure on margins can be countered by offering tailored payment solutions which will bundle core and ancillary services, and providing multi-payment solutions coupled with cost management.
- Lastly, banks can maintain their reputation as a trusted party in the payments value chain by taking a lead in real-time payments arena.

3. EVOLUTION OF COMMERCIAL LOANING: SURVIVAL OF THE FITTEST

Disintermediation has been a long-haul aspect in the banking sector for quite a while. For example, three decades back banks gave a noteworthy part of credit to the corporates. Yet, in 2014, bank advances represented just around 30 percent of corporate debt.[13] This pattern has been a net positive— profound capital markets configure a key vertical of the economies.

In any case taken after the financial crisis, various components have joined to hose bank aggressiveness in customary loaning, starting with the stricter statutes of banks, contrasted with that of nonbanks. Add to that the years of record-low interest rates, which have refuted banks' conventional retail financing advantage. There are presently diminished impediments to enter the banking sector through innovations—new players can enter without enormous forthright financing. What's more, the conduct of banking clients has changed altogether, from Millennials, who are more oriented to transactions furthermore, less impacted by conventional brands, to the more technically knowledgeable shopper base whose desires for prompt outcomes depends on what banks can convey with their legacy frameworks.

Exploiting these advancements, commercial and marketplace lenders (MLs) are starting to represent a test to conventional players. Unburdened by legacy frameworks or administrative limitations related to holding financial deposits, these new participants are taking advantage of disruptive innovations to decipher the glitches in conventional loaning forms.

Yet the MLs are relied upon to develop at an amazing rate in the coming years[14] and banks themselves concur that commercial loaning has disrupted numerous parts of loaning, including the process and speed with which borrowing clients are found, surveyed, and provided loans.

As the familiar proverb goes, "If you can't beat them, join them." The incongruity here is that both the camps, banks and commercial loan specialists, are taking this as a guidance. In spite of numerous forecasts that commercial loaning will revolutionize the banking sector, both sides are looking out for each other.

There are various cases, however probably the most well-known are: Citi's organization with

LendingClub to meet the Group Reinvestment Act requirements,[15] OnDeck's relationship with Chase for private venture commencement, furthermore, Avant's associations with Jefferies and J P Morgan for securitization.[16] So, while commercial loaning can be considered a disruptor to the loaning model, the interruption does exclude disintermediating banks and also not many banks are intrigued by updating legacy frameworks for loaning when there are potential accomplices in MLs who have as of now made agile innovation stages starting with no external help.

In the first place it should be highlighted that this reshaped, disrupted market will also incorporate both banks and commercial moneylenders. Banks today serve a great many retail clients, and they have 100 percent of private venture financial records. This tremendous access to clients of different types and their information are a gold mine to MLs[17] who themselves convey new efficiencies to the table, including computerized credit endorsements. Their designs likewise flawlessly start credits on a national level with an incredible speed as compared to banks. This computerization of loaning exercises is alluring to banks on account of its cost-viability and upgrades to client encounter.

Therefore, in coming years the development of commercial loan specialists will reshape the market in a way that is now foreshadowed along its present loaning lifecycle, however banks are being incorporated at each progression.

On the financing side, commercial loaning with banking organizations of different sorts ought to draw in more institutional capital: Incorporating banks, insurance companies, mutual funds, wealth managing firms, and pension funds. Regarding beginning and underwriting, the scores of commercial moneylenders that inclined intensely on subprime or specialty markets made feasible by low rates may vanish or be retained. The surviving commercial moneylenders with fortified links to banks will construct another loaning foundation to serve people and organizations, with the organizations including such specialty items as receipt considering and fund advances.

There will be incorporation of new sorts of information and tools to analyze it, consolidated with bank client information in underwriting models. Collaborating with banks could permit commercial loaning survivors to ensure the higher financing cost environment and a harsher credit cycle because of banks' stability. On the loan servicing end, the client experience will be limitlessly moved forward no matter how you look at it, as banks or together with other commercial players.

Driven by institutional request and the more prominent straightforwardness at the individual advance level, we are probably going to see a hearty development in the ML securitization showcase along individual portions, such as independent company, individual purchaser, student, and therapeutic markets. Also, it is obvious that as securitization brings liquidity, a credit-default-swap market will emerge, promoting financing needs.

With respect to regulation, there is as of now a coalition of commercial environment players that is drafting a bill of commercial loaning rights, basically self-control. The Consumer Financial Insurance Bureau is now managing the ML environment, with these players as of now need to abide to the present suite of guidelines and regulations, for example, the Bank Secrecy Act/Anti-Money Washing and the Truth in Lending Act.

Key proposals:

- Banks ought to gain some learnings from MLs to deal with the perils of inefficiencies in operating, and enhance their endorsing innovation in customary customer loaning and commercial loaning.
- Partnering with MLs where pertinence will matter for many banks, as various MLs will be anxious to get to banks' sanctions, clients, asset reports, or to get levied charges from offering innovative solutions to banks.
- In the cases where banks have an upper hand like in commercial real estate, in mortgages, revolving credit facilities and corporate lending—upgrading their current practices to nullify any future rivalry arising from MLs can serve banks well over the long haul.
- It takes banks of all sizes to keep up a thorough information base about MLs to guarantee that banks are well situated to take most deliberated and ideal acquisitions, service agreements or joint ventures with the consolidation in the markets.
- Banks that have yet to engross in purchasing ML credits and on the other hand securitization exchanges ought to copy institutional investors that have created mastery in due diligence and in depth analysis of these portfolios.

4. NOVEL INSTITUTIONAL PARADIGM: COLLABORATIVE AND AGILE

Many banks and capital markets firms, especially the complex foundations, have been disentangling their business and working models in the recent couple of years, both for financial reasons and to diminish authoritative complexity.[18] There is an immense acknowledgment that they don't or can't exceed expectations at each movement, and that it might be less demanding and less expensive to outsource noncore exercises.

This ideation has taken different designs: Businesses have been sold, capital and assets reallocated in a more proficient way, and geographic footprints have contracted. This adventure is not yet terminated for various organizations, especially in Europe.[19]

Outsourcing, particularly in IT, is most certainly not another pattern in banking sector and capital markets.[20] For decades numerous establishments profited from specific outsourcing of "run-the-bank" exercises to outsiders. What's more, the outsourcing marvel has not been confined to capabilities alone (for instance, client assistance or designing programs) however has moreover incorporated platforms and infrastructures (data and information warehouses; and IT frameworks).

In the more extensive environment, the expanding appropriation of cloud entailed services by financing firms and the developing notoriety of industry utilities (the Know Your Customer registry, for one) have made it more appealing for financial institutional to depend on outsiders. Additionally, cost contemplations and the requirement for more specific proficiency are convincing firms to embrace new "workforce-on-request" models and more prominent utilization of hourly, contractual workers, and contingent workers.[21]

The propagation of infrastructure as a service operations will expand its reaches, and a few banks have even begun uncovering core programming applications to outside engineers as an approach to empower designing of innovative and helpful apps.[22] In the meantime, there are additionally certain exercises that are being acquired in-house, for example, developing applications and talent acquisition. The rationale for that is to increase the ownership of the intellectual property. Regardless of the fundamental implications, the idea of enlarged associations can be expected, where there is an expanding dependence on a system of accomplices, specialist organizations, and industrial utilities, to turn out to be more normal over the business throughout the following decade.[23]

Dexterous models will turn out to be more imperative in overseeing steady changes and dealing in a changing environment. Administration intricacies will swell, requiring novel initiatives that are more sensitive to an augmented environment and agile in its approach. Banks are likewise liable to discover diverse approaches to draw in with its infrastructure dispensers. In many cases, the vast establishments will need their own particular restrictive designed infrastructures—a "private cloud," for instance—for more control, while others may decide on general public and open frameworks.

This enlarged environment, in which a large portion of the talent is "not our talent," and where the greater part of the infrastructure frameworks is "not our infrastructure framework" while offering some self-evident advantages, for example, lessened expenses and unpredictability, raises some new concerns.[24]

While finding dependable foundation framework accomplices has dependably been a vital objective earlier, distinguishing the "right suppliers" later on will turn out to be much more so. Thus, banks are anticipated to embrace distinctive techniques in addressing their needs:

Some may go to top of the line benefit accomplices rather than ease choices, while others will depend on more "ex-drive" (outside ability) to oversee huge numbers of their operations. Banks will likewise need to create distinctive partnering and contracting supportive models with various players in this domain. For example, working with an innovation firm is on a very basic level not the same as what banks do today with conventional outsourced specialist organizations.

In any case, firms that have chosen to put resources into their in-house framework and ability will hope to boost their esteem by offering and adapting these assets to others in the environment, much the same as the numerous illustrations that can be witnessed today in the sharing economy.

In all cases, dealing with this developing system of business accomplices and external talent will likewise raise new dangers, especially operational dangers. Seller hazard administration should be hoisted and evaluated rigorously. Also one can anticipate that cyber security will turn into a greater extent a worry as systems turn out to be more unpredictable and interconnected thus interdependent. Reputational hazards should be reassessed to proactively oversee overflow and spillover impacts from others' negative execution and implementation in the environment. While none of these are new dangers, the way these establishments will probably need to bargain with a more extensive system of suppliers and accomplices suggests that overseeing both immediate and roundabout dangers will be more imperative in the future.[25]

In this new hierarchical globe view, keeping up a hierarchical character and making a strong culture and worker commitment when the vast majority of the external talent will be a totally new test. In our view, a more globe wide "ex-drive" (outer talent) will require more prominent social affectability and the ability to be more adaptable with work conventions.

Key proposals:

- To plan for the situation where there is more prominent dependence on outsiders for framework and ability, authority in these establishments ought to contemplate the potential outcomes of the enlarged environment, and deliberately control the association towards this future.
- Senior administrators and the directorate ought to inquire point by point inquiries concerning the sourcing and administration of talent and infrastructure designs in the entire organization. The management of the firm ought to be urged to reevaluate asset and resource management for both core and noncore exercises.
- New administration aptitudes will be required in the new environment. Administrators who are open, more community oriented, and willing to reallocate and reassign assets between internal parties and external environment in a more dynamic manner will probably be more compelling.
- Banks will most likely higher level of intellect, which can be supported inside or outsourced. Working with imminent talent pools, for example, b-schools, to underscore this environment introduction and building solid associations with outside environment ought to be profitable.
- Finally, to advance steadfastness among both workers and the ex-drive, innovative ways to deal with creating association or benefiting assertions, alongside incentive and talent models, might be fundamentally required. Firms will likewise need to rethink contending in this new open and community oriented environment.

It can be foreseen that the drive towards disentanglement and the cost assessment will make another authoritative globe view. Dependence on outsiders for noncore framework and ability will be customary. Banks will turn out to be progressively associated together through an interconnected complex system with third parties and web of vendors. This enlarged environment, while offers many advantages, will likewise be exposed to new operational dangers.

5. FLUENT TRADING: TECHNICAL SUPERIORITY AND EXPLORING PERTINENCE

The concept of "trading without humans" has been a market reality for no less than 10 years now.[26] Digitization of trades and, algorithmic trading have effectively lessened the human intervention in various asset classes, especially in futures and equities. However, this increased automation has given rise to new risks that have turned into a central worry to the business— "sudden crashes" in stocks and treasuries being two examples.[27]

While the quantity of human dealers in the front office has shrunk essentially, most fundamental back-office activities, for example, clearing and settlement, still work on sluggish, antiquated frameworks also, manual procedures, and are in desperate need of simplification furthermore, automation. For example, consider stocks and bonds settlements. With the advent of new millennium, rigorous planning was done to achieve T+1, however the back-office activities were found to be so challenging by the firms that their desire had been fundamentally brought down to accomplishing T+2 in 2017.[28] They are hoping to "considerably lessen operational and systemic risk over the business, lower liquidity needs, and restrain pro-cyclicality."[29]

Any push to modernize and digitize the trading lifecycle has to go up against two fundamental difficulties: A disintegrated technological framework and substandard risk governance. Increased levels of risk and inefficiencies arise from fragmented processes, systems, and risk controls. It is almost impossible to monitor risks and compliances in real-time when across platforms and various asset classes if the systems are hardly connected to each other. In short we can say that, various obstacles still present in the trading lifecycle, alongside an excessive number of intermediation from pre-exchange to securities settlement.

While conventional architecture and imperfect procedures impede endeavors to streamline the trading lifecycle, technological advancements in in various fields like blockchain, robotics, machine learning, and artificial intelligence have the potential to make trading frictionless in the future.

We offer our views on blockchain and machine learning in the following section, as we believe that these two technologies will metamorphose the entire trading industry.

6. AI TRANSFORMING SECURITIES

In the most recent decade or thereabouts, machine learning – "a vigorous and energetic subfield of computer science based on the methods and models of statistics, computational complexity, algorithms, control theory, artificial intelligence, and various other fields"[30] – has been effectively utilized in transacting a range of securities. Furthermore, it shows up, the application of machines to make insightful choices is just going to quicken exponentially in the close future. These advances are probably going to additionally robotize front-office elements of securities exchanging.

Smart algorithms that are progressively better at foreseeing the human and market behavior won't just turn out to be more commonplace but also more capable. With adequate investments in the technological innovations, these trading machines will be equipped for examining hazards progressively and in an all-encompassing manner, completely utilizing both institutional information and outside data sets. What's more, these abilities won't be confined to sell-side firms; buy-side firms will likewise create comparable mastery.

This inescapable mechanization will affect industry rivalry in significant ways. Markets will turn out to be more efficient and price discovery easier. Also, competitive differentiation will have fewer opportunities. The resulting scenarios will likely hit the profitability of the firms. Although a few firms will have the capacity to keep up an advantage through their sophisticated machine-learning algorithms in addition to automated trading systems, for most firms, this technological edge will prove to be insufficient.

As technology and automation levels the playing field, custom human insights and strategic advice in developing algorithms and taking investment related decisions will turn out to be the prime differentiating factors, as the environment becomes increasingly techno-democratic. Therefore, only those firms which will invest significantly and sincerely in developing this specific human expertise will be able to distinguish themselves and their offerings in the market. Not to mention, privileged access to major deals and a robust balance sheet will provide an edge over competitors, as always. Additionally, the efforts to make trading frictionless will be aided and abetted by developments in other groundbreaking technologies like cognitive computing.

Obviously, not all the technological advancements across various stages of trading lifecycle will take place at the same time or in similar fashion. For example, currently there are very few hurdles in achieving real-time trading, but achieving real-time clearing will take at least a few more years. In case of settlements, T+2 can be reached rather quickly but T+1 will take require at least another 10 years.

7. BLOCKCHAIN: MOVING FROM EXTRAVAGANCE TO PRAGMATIC

It can be assumed that most of the current inefficiencies in the entire trading process will cease to exist in the near future, if the typical prognosis regarding the blockchain technology is to be believed. Almost all major firms on Wall Street are trying to examine the potential of this technology in various domains like securities trading, clearing, and settlements. We absolutely believe that this technology of distributed ledgers has immense potential to completely disrupt and transform various financial transactions which till date required trusted intermediaries.[31]

In our view, though the potential of blockchain is unquestionable, materializing it will be a herculean task considering the excessive legacy overhang which will impede the transition. The migration to a trading-clearing-settlement architecture based on blockchain technology will require massive efforts on a collective basis.

Nevertheless, it is encouraging to see the several industry players undertaking initiatives to understand and deploy the blockchain technology for various front-office as well as back-end activities.[32] The private blockchain trials such as NASDAQ's Linq[33] and Digital Asset Holdings[34] are expected to accumulate pace and expedite the streamlining of back-end activities.

Key proposals:

- Automation and digitization won't occur simultaneously over all phases of the trading lifecycle. Moreover, not all activities deserve the same investments – some deserve more than others. Thus, it is imperative to disaggregate and separate the entire value chain of trading into various subcomponents, and to seek efficiencies wherever possible using computerization, outsourcing or through industry utilities.

- The financial institutions should invest sincerely in developing intelligent systems and competencies in machine learning by partnering with other market entities in order to be prepared for the future as dominance of machines in trading is inevitable.
- It will be critical to invest in developing tailored human expertise as well as in leveraging the technology to achieve scale and competitive advantage in the area of core competency.
- Lastly, it will be necessary for the firms to work together with other market participants in the industry to develop advanced systems and architectures for various phases of trading lifecycle to ensure success in the future.

To summarize, it can be predicted that the machines will command all parts of the securities trading cycle, and blockchain innovation will assume an outstanding role in this metamorphosis. The markets are expected to become more efficient with an increase in automation and shorter clearing and settlement cycles which will also lead to lesser differentiated offerings by the firms. However, the importance of human insights and strategic advice will increase even more in the areas of client-servicing, developing algorithms, and taking decisions related to investments. Achieving T+0 is possible but certainly not within next 10 years.

Fate of brands: Need for automated and more client concentrated operations

Apparently, the brands in financial industry are facing an existential crisis. It wasn't long back that brands in banking industry were comparable to most other industries with respect to brand value and consumer trust, which was changed by the financial crisis of 2008. The crisis caused some serious reputational damage to the banks and many banking brands are yet to recuperate from it.[35] Even after so many years since the crisis, banks are, unfortunately, considered as the least trusted institutions. In terms of brand value, banks have experienced the least growth vis-à-vis other industries in the last decade or so.[36] Considering the importance of banking industry in today's economy as well as society, this is all the more disturbing.

Due to the financial crisis, some banks lost their sheen, but on the other hand, some new names managed to rise. For example, Wells Fargo, which is currently positioned as one of the most valuable brand in banking industry, was nowhere in the list of top-100 global brands in 2006.

Although there were 22 banking firms in the Top 100 Most Valuable Global Brands 2015 based on Millward Brown's BrandZ scores, their combined brand value, which amounts to $546 Billion, is less than that of top four technology brands which includes Apple, Google, and IBM. In today's digital world, the strong bearers of brand equity are only those brands which successfully manage to evoke strong and positive emotions among customers, and are seen as true icons of technology.

8. BANKING FUNCTIONS REDEFINED

As posited earlier, we are bound to witness a significant transformation in the banking industry in next five to 10 years. The major drivers like disintermediation, digitization, and automation coupled with other disruptive forces will completely change the delivery of banking products and the experience of consuming them.

The bigger challenge facing banks is how they will convey their uniqueness to consumers and influence their behavior in a world where digital experiences are becoming increasingly dominating.

As customers will have an increasing control over when and how they engage with banking institutions, we believe that the brand experience will become all the more fragmented and peculiar. With the rapidly increasing availability of on-demand services in other industries, the customers will expect similar offerings from the banks too.

In such a demanding environment, delivering a consistent brand experience is all the more challenging. The marketers will have no option but to bring in all the creativity into designing the customer experience. Although the banks will have reduced control over how the brand is experienced by the customers, access to information at individual customer level through real-time data will turn out to be a savior. The banks will have renewed ability to offer tailored products and experiences thanks to this new ocean of data.

This glut of information is, however, a power at a cost, as the banks will be forced to increase the transparency in their marketing actions. The banks will be compelled to articulate their values in more effective ways because the customers will demand for higher transparency in pricing which will make comparison shopping all the easier.

Those least influenced by the banking brands will be none other than Millennials.[37] Consequently, to address these evolving values, banks may have to widen and metamorphose their brand promise. Similarly, institutions' social mission and values will be a major influencing factor for the future talent as compared to their past brand power. In order to meet these newer expectations, banks may need to increase their spending on social causes which concern their customers, thereby promoting organization-wide corporate social responsibility.

Banks which can foresee the emerging needs of post-Millennials as they come of age, will have a competitive advantage. As the oldest of this generation are about to graduate from colleges and enter the workforce, it the right time to envision the best customer experience model for them.

As customers become increasingly sympathetic towards social concerns, banks will need to get involved in these issues selectively, through various channels including social media. As learnt from past incidences, any blunders are amplified via social media and thus, banks must become more resilient in protecting their brand.

Lastly, another challenge which banks will have to face is the ever reducing attention span of consumers which in turn makes conveying and reinforcing brand values and benefits much more difficult.

Key proposals:

- The banks ought to develop an explicit, unwavering, and sustainable brand strategy which will be insusceptible to any short-term shifts in customer perceptions. This is possible only upon making brand management a core function within a bank. In order to become more dynamic and consumer-centric institution, it is necessary to aggrandize the role of Chief Marketing Officer and provide required resources to drive the brand.
- The initial phase in this procedure is re-building up trust. It will become crucial to develop relevant insights with respect to the performance of the brand by critically analyzing diverse data sets.
- The banks must focus on integrating the branding activities across multiple channels and reinforce the distinguishing attributes of the brand in order to maintain a consistent and unwavering brand identity. Though it is not an easy task, investing in such activities will enable banks to draw tremendous value and exercise control over the brand.
- The potential associations of different brands arising out of various tie-ups will require a careful attention from the banks as partnerships and collaborations with other market players will become more and more common. Against this backdrop, banks need to identify partners whose brand values align with their own.

To summarize, it has become more important than ever to build sustainable brand equity as the world become digital. In order to compete with technology brands like Apple and Google, banks need to do a lot more branding activities. The increasing partnerships in the banking industry will also produce more brand equity. Differentiated service offerings and enhanced customer experience will emerge as major game-changing factors.

9. CONCLUSION

By 2020, private blockchain based payments will form a significant proportion of the global transactions whereas uber-blockchains (chain-of-chains) supporting Automated Clearing Houses (ACH) will be realizable by 2025. As the usage of crypto-currencies along with their compatibility with other currencies increase, they will gain acceptance in the mainstream. With the diminishing need for traditional intermediaries, direct payments are bound to become common. Digitization will erode the margins behind products and services, however, dominance of incumbent firms shall prevail. Finally, the overall customer experience will become seamless and enhanced owing to the advances in Internet of Things (IoT) and digital payments.

It can be foreseen that the commercial loaning industry will undergo consolidation, triggered by unexceptional credit and interest rates. The resulting industry landscape will consists of three variations: First, the lending firms enjoying the advantage of scale will survive, by securing joint ventures and partnerships with other large banks and acquiring smaller ones; second, marketplace lenders will be acquired by large banks along with technology players resulting in a strengthened banking operations; third, providing white-label services to larger banks will be chosen by some marketplace lenders.

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TESTING MARKET EFFICIENCY AND PRICE DISCOVERY IN INDIAN COMMODITIES FUTURE MARKET AT AN INDEX LEVEL - A COINTEGRATION BASED APPROACH

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ABSTRACT

Commodities future market plays an important role by serving as a mechanism for price discovery and as an institutional mechanism to manage price risks. These roles played by the market have extreme importance especially for developing economies which have substantial commodity price exposures on both imports and exports. The utility of the market in performing these roles is a function of its efficiency. Efficient future markets provide a mechanism for managing the risk associated with the uncertainty related to future events and an information ally efficient market enables the current future prices to act as accurate indicators of the spot prices expected at the maturity of the future contract. Testing the market efficiency and price discovery therefore becomes very critical.

While most of the earlier studies both in the Indian and Global context have tested market efficiency at an individual commodity level , this empirical work aims to test the same at the level of Indices issued by the largest commodity exchange in India, namely the Multi state commodity exchange of India (MCX) .The study employs the tried and test cointegration methodology to achieve this objective, In addition to this the study employs the Dynamic OLS (DOLS) approach to estimate the cointegration regression and test the Cointegrating vectors for market efficiency. The results of the study indicate market inefficiency at the level of the index, thereby suggesting that the role the market plays in performing its functions of price risk management and price discovery stands impaired.

KEYWORDS

Commodity futures, Commodity Indices, market efficiency, cointegration & Dynamic ordinary least square (DOLS).

1. INTRODUCTION & THEORETICAL FRAMEWORK

The commodities future market has over a period of time , come to be recognized as one of the most effective institutional market based mechanism for enabling price risk management and price discovery. In India this market has faced turbulent times right from its coming into existence, the market has not been in a position to realize its full potential with the futures trading being banned from time to time in order to contain speculation which the government attributed to rising inflation. In India, Currently six national commodity exchanges, viz. Multi State Commodity Exchange, Mumbai (MCX), National Commodity and Derivatives Exchange, Mumbai (NCDEX), National Multi Commodity Exchange, Ahmadabad (NMCE), Indian Commodity Exchange Ltd., Mumbai (ICEX), ACE Derivatives and Commodity Exchange, Mumbai (ACE) and Universal Commodity Exchange Ltd., Navi Mumbai (UCX), regulate forward trading in 113 commodities. Besides, there are about 16 regional exchanges also. Of these exchanges, the Multi state commodity exchange of India has been the largest in terms of trading volumes right from its inception. Commodity indices have also been developed by the MCX; these indices which are displayed on the website of the commodity exchange are notional indices and not available for trading as the current regulatory position prohibits the same. The major indices developed by the commodity exchange are as under-

1. MCXCOMDEX(Spot and Future series)- Composite commodity Index
2. MCXAGRI(Spot and Future series)- Agricultural commodity index
3. MCXMETAL (Spot and Future series)- Metal commodity index
4. MCXENERGY(Spot and Future series)- Energy commodity Index

Through this empirical work, we aim to test the market efficiency and price discovery in MCX with reference to these indices, Part 2 provides the review of literature pertaining to studies relating to the testing of market efficiency, Part 3 states the data and methodology involved, Part 4 delves into the results and analysis and Part 5 sums up the paper by providing a brief conclusion.

2. REVIEW OF LITERATURE

Hedging will be successful only if these futures markets are efficient in price discovery, an implied condition necessary for the successful performance of the hedging function is the operation of market efficiency which becomes the foundation for an efficient price discovery mechanism. The market is said to be efficient when the futures and spot prices move in tandem. In order words the future price at any time would serve to be the best unbiased predictor of the spot price in the future. This is also referred to as the unbiasedness Hypothesis. Testing market efficiency in terms of price discovery and information flow across the markets has received a lot of attention among academicians, regulators and policy makers' .Several studies both in the International as well as Indian context have attempted to test the efficiency of the commodities future market. The results have been somewhat mixed, some concluding that the markets and efficient and others stating it to be inefficient. Some studies concluded long term efficiency of the commodities market, with short term inefficiencies existing. **Beck (1994)** aimed at examining efficiency with respect to six commodities comprising of cattle, Orange juice, hogs, corn, copper, cocoa and soybean. The market efficiency in the individual commodities was tested over a eight week and a twenty four week horizon. The study similarly used the approach of testing whether futures prices were an unbiased predictor of the spot prices by using the Engle- Granger two step cointegration procedure, the study did not seem to present a strong case for accepting or rejecting market efficiency and the results were mixed. **Mckenzie and Holt (2002)** tested the efficiencies of the US futures markets for cattle, corn and soybean meal, Live hogs and Iced Broil over the period 1966 to 1995. They tested for the restrictions in the cointegration regression by using the likelihood ratio test statistic. Their results indicate that futures markets for all these commodities are both efficient and unbiased in the long run. This study used both the two stage Engle-Granger and Johansen cointegration procedures to test for long run market efficiency and unbiasedness by allowing for the possible existence of a constant risk premium. **Sahi and Raizada (2006)** have examined the efficiency of wheat futures markets for the period 2004 to 2006 using published data from NCDEX. The study was conducted for different futures forecasting horizons ranging from one week to three months; the authors used the Johansen cointegration test for establishing cointegration between the time series at different intervals. They obtained results rejecting (β_0 =0 and β_1=1), thereby concluding inefficiency of the commodities market with respect to wheat. **Ali and Gupta (2011)** analyzed the efficiency of twelve agricultural commodities by examining the relationships between future and spot prices from 2004 to 2007, they employed co integration using Johansen cointegration procedure and causality tests, their study indicated that co integration existed in these indices for all commodities except for wheat and rice. **Hamori and Inoue (2012)** by using data for the period from 02 January 2006 to 31 March 2011 tried to estimate the long run equilibrium relationship between multi commodity future and spot prices and then attempted to test for market efficiency in the weak form by applying both the Dynamic OLS (DOLS) and fully modified OLS (FMOLS) methods of cointegration regression. Their results through the application of Johansen cointegration test and thereafter through the application of DOLS and FMOLS indicated that a Cointegrating relationship exists between the indices and the commodity future market seemed to be efficient during the more recent sub sample period since July 2009. However during the entire sample period, covering 2006 to 2011, the markets were found to be inefficient. **Soni (2013)** attempted to examine the market efficiency and unbiasedness among guar seed contracts traded at NCDEX for the period April 2004 till March 2012. The study has tested the market efficiency and unbiasedness with different maturities using cointegration analysis by using the Johansen Cointegration procedure, and short-term market efficiency, using an error correction model and volatility by using the GARCH-M-ECM. He obtained results rejecting (β_0 =0 and β_1=1), The results suggest that futures market for guar seed is inefficient and biased in both short run and long run for all maturity periods, which may be caused by over-speculation or market manipulation. **Harper, Jin and Sokunle (2015)** carried out a study aiming to evaluate whether the silver futures market is efficient in the weak form by examining if silver future prices follow a random walk. Data for this study was retrieved from Bloomberg database and spans over a period of January 2008 to December; 2012.Autocorrelation was used as a parametric test and runs test was used as a non parametric test. Their results from both the tests indicated that silver futures market does not possess significant serial correlation; they concluded the efficiency of the commodity market with respect to Silver in its weak form.

3. RESEARCH METHOD

3.1 Data

The data relating to the daily closing future and spot indices as have been specified earlier have been sourced from the official website of the Multi state commodity exchange of India for the period 2007-2012.

3.2 Methodology

Literature survey has specified for the use of time series econometric techniques namely the co integration tests for studying the efficiency of future markets. Two series are said to be cointegrated if there exists a long run equilibrium relationship between them. The theory of cointegration implies that the future market would be said to be efficient when the future rate (F_t) is equal to the future spot rate (S_t), the efficiency of the future market is generally examined by testing the unbiasedness of future rate as a predictor of the future spot rate. The test of efficiency and unbiasedness is carried out by taking the regression of spot value (*S_t) on* Future value (*F_t) as shown in Equation 1 and* ***testing the null hypothesis*** that is β_0= 0 and β_0=0, β_1=1

$$ln(S_t) = \beta_0 + \beta_1 ln(F_t) + \upsilon_t \ldots\ldots(Eq.1)$$

Where υ_t is the error correction term/Residual, S_t is the spot index and F_t is the future index. β_0 and β_1 are the co integrating vectors, in this form, for unbiasedness to exist it is required that β_0 =0 and β_1=1. For all the indices if the null hypothesis of restriction of Unbiasedness (β_0 =0 and β_1=1) and the restriction of market efficiency (β_1=1) is rejected, then the inefficiency of the markets can be concluded, in other words the futures prices were not consistently efficient and unbiased for our study. However before applying the standard statistical tests of parametric restriction for testing the Cointegrating vectors as discussed in Equation 1 and as a precondition of co-integration analysis, unit root tests based on Phillips & Perron(1988) were used to examine whether the future and spot price series are stationary or not. A great advantage of the Phillips Perron method is that it is non parametric and adjusts non parametrically for possible autocorrelation and heteroscedasticity of the long run covariance. Once the future and spot price series become integrated of order I(1), the long run efficiency of future markets for the specified indices can now be tested based on co integration tests. The two most prominent methods of checking cointegration are the Engle Granger (1987) two step procedure and the Johansen cointegration test (1988, 1991). The JJ approach is however considered superior to the Engle granger approach as the Engle granger approach is sensitive to the choice of the dependant variable in the cointegration regression and as the JJ procedure does not assume the existence of at most a single Cointegrating vector, but rather tests for the number of Cointegrating relationships (Massih, A M M and R.Massih, 1996). Owing to its superiority, The JJ approach has been used in this study to explore the co integration possibility. Also since the Johansen cointegration test are quite sensitive to the lag length selected and as selection of an inappropriate lag length can lead to problems of underparamterization or overparamterization, in our study the relevant information criterion, Akaike Information criteria (AIC)/ Schwartz Information criteria (SIC) is used to select the optimal lag length and all the related calculations have been conducted incorporating that lag length. Under the Johansen Procedure, there are two kinds of tests: The Trace Test and the Maximal Eigen value test. Both these test statistics are used to interpret whether null hypothesis of r =0 (zero co integrating vector) is rejected/accepted at 5% level of significance and not rejected/rejected when r =1(One co integrating vector). If r= 0 cannot be rejected we will conclude that there is no Cointegrating vector and therefore no cointegration, on the other hand if r=0 is rejected and r=1 cannot be rejected, it confirms a long run equilibrium relationship between the spot and the future prices. At this stage of testing if long run non cointegration is established through the Johansen cointegration tests than market inefficiency can be concluded since cointegration is a necessary condition for market efficiency. Further testing would not be required. If future and spot prices are found to be cointegrated then only then can we move to the next step which is testing the restrictions on the parameters in equation 1. For all the indices if the null hypothesis of restriction of Unbiasedness (β_0 =0 and

β_1=1) and the restriction of market efficiency (β_1=1) is rejected, then the inefficiency of the markets can be concluded, in other words the futures prices were not consistently efficient and unbiased for our study. A number of estimators have been proposed in economic literature to estimate coefficients in the cointegration regression. One of them is the JJ procedure which is based on maximum likelihood estimate(MLE) approach, the other two more prominent, robust and recent ones suggested are , The Dynamic ordinary least square (DOLS) regression approach as advocated by Stock and Watson (1993) and the Fully modified ordinary least square(FMOLS) as advocated by Phillips and Hansen(1990). The DOLS and the FMOLS tests are applicable under the conditions that existence of cointegration is established. These techniques facilitate establishing a regression without the need to take differences of the cointegrated variables. Thus it becomes possible to analyze without loss of any information the relationship between the dependant and the explanatory variables which are cointegrated in nature. While DOLS is a parametric method which is used to obtain long-run coefficients by taking into account the lead and lagged values of variables. FMOLS is a method eliminating serial correlation effect by applying a nonparametric transformation to residuals which are obtained from cointegration regression. Kao and Chiang (1998) noted that the DOLS estimator may be more promising than the Ordinary least square (OLS) and the fully modified ordinary least square (FMOLS) in estimating the cointegrated regressions. Thus the DOLS is used in this study to estimate the coefficients in the cointegration equation followed by the Wald test which is conducted to test the statistical significance of the cointegration vector. Also to correct the standard errors for serial correlation and heteroscedasticity if detected estimators have been developed by Newey and West (Newey and West, 1987) and Halbert White (H. White, 1980). The Newey west procedure and the H.White procedure are strictly applicable in large samples (Gujarathi, 2003). This study has a large sample size and has used this procedure for correction of standard errors in the event of detection of heteroscedasticity and/or serial correlation in the regression. The coefficients generated by DOLS represent the long run estimation between variables, however, the concept of market efficiency is to be understood while taking the time dimensions into consideration, i.e. the market may be efficient in the long run but in the short run there could be considerable short run efficiencies and pricing biases. Therefore once long run cointegration has been established as stated above, the Vector Error correction model (VECM) can now be used to test for long term and short term causation and the speed of equilibrium relationship between the corresponding time series. The cointegration term in the VECM is known as the error correction term (ECT) since the deviation from long run equilibrium is corrected gradually through a series of short- run adjustment dynamics. The ECT represents the long run causality relationship, a negative and significant coefficient of the error correction term (ECT) indicates the presence of a long run causal relationship (Granger, 1998). The short run causality is captured through individual coefficients of the difference terms of the explanatory variables as stated in equation 2 and 3 .The Null Hypothesis of no short term causation is tested by ascertaining whether the individual coefficients of the differenced explanatory variable are jointly zero or not. The Wald Chi square statistics is used to test the same.

$$\Delta ln(S_t) = C + \rho v_{t-1} + \sum_{i=1}^{m} a_i \Delta ln(S)_{t-i} + \sum_{j=1}^{n} b_j \Delta ln(F)_{t-j} + \mu_t \quad \ldots \ldots (Eq.2)$$

$$\Delta ln(F_t) = Z + \alpha v_{t-1} + \sum_{j=1}^{m} k_i \Delta ln(F)_{t-j} + \sum_{i=1}^{n} d_j \Delta ln(S)_{t-i} + \epsilon_t \quad \ldots\ldots (Eq.3)$$

Where

C and Z = Intercept, $\Delta\ln(S)_{t-i}$= Changes in Spot Prices, $\Delta\ln(F)_{t-j}$= Changes in Future Prices

υ_{t-1} = Error Correction Term and μ and €= White noise

4. DATA ANALYSIS AND RESULTS

4.1 Stationarity Tests

Phillips Perron (PP) test results are presented in Table 1. Each of the series is found to be non stationary at level but becomes stationary after first differencing under all the three specifications. They are, thus found to be integrated of order I (1).

(Insert Table 1 about here)

4.2 Johansen Cointegration Test

The Johansen Cointegration Test (Both Trace and Max Eigen) results are presented in Table 3. The results obtained from both the Trace and the Max Eigen statistics confirm that no long run cointegration has been established for MCXCOMDEX and MCXAGRI as the null hypothesis of no cointegration could not be rejected at 1 % level of significance. But the same stands established for MCXMETAL and MCXENERGY as the same could be rejected in this case at 1% level of significance.

(Insert Table 2 about here)

In case of MCXCOMDEX and MCXAGRI, as long run cointegration which is a necessary condition for market efficiency is not fulfilled, we can state that the market has not been efficient in price discovery with respect to its composite Index, MCXCOMDEX and with respect to its agricultural index, MCXAGRI. Further testing with respect to both these indices would not be required.

4.3 Testing restrictions on Cointegrating Vector

The Dynamic OLS, used to estimate the cointegration regression and the Wald test results to test the restrictions in the cointegration regression are presented in Table 4. In both the cases of MCXMETAL and MCXENERGY, The Wald test results to test β_1=1 (Restriction of market efficiency on cointegration) and Wald test to test β_1=1, β_0=0 (Restriction of unbiasedness on cointegration) indicates that we should reject the hypothesis of unbiasedness and market efficiency at 1 % significance level . Hence we can state that *future values* are not efficient and unbiased predictor of the *spot values* in long run

(Insert Table 3 about here)

4.4 Vector Error Correction Model

The Vector Error correction results with dependant as spot and dependant as future are presented in Table 5 and Table 6 respectively. The results as shown in table 5 indicate that the ECT is both negative and significant at 1 % level for both the indices, MCXMETAL and MCXENERGY. The speed of adjustment towards run equilibrium is 30 % and 13 % in case of MCXMETAL and MCXENERGY respectively. These results are consistent with our results earlier established in the cointegration tests. When short run causality from future to spot is examined as shown in table 5, the hypothesis of no causality gets rejected at 1 % level of significance , thereby indicating that there is a causality running from the future to the spot in case of both the Indices. When reverse causality from spot to future is examined as shown in Table 6, it is observed that the hypothesis of no causality does not get rejected at 1 % level of significance ,thereby indicating that there is a short run causality running from future to spot, but not vice versa, in case of both the MCXMETAL and MCXENERGY. This also confirms the theoretical well established fact that if cointegration is established between two variables, there has to be at least one way causal relationship between them (Engle- Granger, 1987).

(Insert Table 4 and 5 about here)

5. CONCLUSION

This paper aimed to revisit, the examining of the role of the commodities future market in performing its functions of Price risk management and Price discovery by testing the efficiency of the market at the level of its index, Very few studies have tested the efficiency of the market at the level of its index. The results obtained from the Cointegration tests and through the testing of the restrictions on the Cointegrating vector indicate that the efficiency of the future market stands impaired , thereby questioning its ability to perform the functions of Price risk management and Price discovery. Multiple reasons could be considered to be attributing to this inefficiency, major of them being, absence of a sufficiently empowered regulator, frequent government interventions in the market and low volumes and depth in the market due to lack of participation of members.

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7. RESULTS

Table 1: Unit Root Test

Variable	Specification	COMDEX	AGRI	METAL	ENERGY
Spot (At level)	Constant and Trend	-1.9067 (0.6178)	2.043253 (0.5766)	2.110175 (0.5392)	2.213727 (0.4811)
Future (At level)	Constant and Trend	-1.917699 (0.6448)	1.688481 (0.7563)	2.151626 (0.5159)	2.053592 (0.5708)
Spot (At first difference)	Constant and Trend	-42.1464 (0.0000)*	41.62388 (0.0000)*	45.28352 (0.0000)*	44.74520 (0.0000)*
Future (At first difference)	Constant and Trend	-41.96957 (0.0000)*	41.47953 (0.0000)*	44.07321 (0.0000)*	40.08869 (0.0000)*

Values in parenthesis indicate Mackinnon (1996) p values,*Significant @ 1 %

Table 2: Johansen Cointegration Test results

Series	Lag Length	Hypothesized Number of CE's	Max Eigen Value	Trace Statistic	Max Eigen Statistic

COMDEX	9	None	0.006086	12.12665 (20.04)	11.15256 (18.63)
		At most one	0.000533	0.974089 (6.65)	0.974089 (6.65)
AGRI	6	None	0.003076	6.807913 (20.04)	5.641347 (18.63)
		At most one	0.000637	1.166566 (6.65)	1.166566 (6.65)
METAL	4	None	0.082469	157.8840* (20.04)	157.6778* (18.63)
		At most one	0.000113	0.206121 (6.65)	0.206121 (6.65)
ENERGY	5	None	0.035272	70.15048* (20.04)	65.78487* (18.63)
		At most one	0.002380	4.365608 (6.65)	4.365608 (6.65)

Lag length is the appropriate lag length selected as per the AIC/SE/FPE Criteria,The Critical values at 1 % are shown in parenthesis below the test statistics.*- Indicates the rejection of the null hypothesis at 1 %

Table 3: Cointegration Estimation Results.

$$ln(S_t) = \beta_0 + \beta_1 ln(F_t) + v_t \dots\dots(Eq.1)$$

Method: Dynamic Ordinary Least Square (DOLS), Automatic Lead and Lag Specification (Lead 10, Lag 24 based on AIC, max=24),HAC Standard Errors and Covariance (Barnett Kernel, Newey west fixed bandwith = 8.0000)

Series	Variable	Coefficient	Std. Error	T Stat	Probability
METAL	β_0	0.020347	0.010559	1.926920	0.0541
	β_1	0.996486	0.001280	778.6764	0.0000
	(β_1=1)			Wald Test	0.0060*
	(β_0=0)			Wald Test	0.0540**
	(β_0=0 , β_1=1)			Wald Test	0.0000*
ENERGY	β_0	-0.447929	0.063311	-7.075021	0.0000

	β_1	1.054149	0.007900	133.4402	0.0000
	Wald Test (β_1=1)				0.0000*
	Wald Test (β_0=0)				0.0000*
	Wald Test (β_0=0 , β_1=1)				0.0000*

*- Significant at 1% , **-Significant at 10 %

Table 4: Vector Error Correction Model

$$\Delta ln(S_t) = C + \rho v_{t-1} + \sum_{i=1}^{m} a_i \Delta ln(S)_{t-i} + \sum_{j=1}^{n} b_j \Delta ln(F)_{t-j} + \mu_t \quad \ldots\ldots(Eq.2)$$

Method: Least Squares (White Heteroscedasticity consistent standard errors and covariance)

Parameters	MCXMETAL	MCXENERGY
ρ	-0.308228 (0.0000)*	-0.135859 (0.0068)*
a_1	-0.294685	-0.365847
a_2	-0.246099	-0.274713
a_3	-0.115429	-0.108208
a_4	-0.039461	-0.055648
a_5		-0.032085
b_1	0.391460	0.631079
b_2	0.312702	0.445409
b_3	0.175026	0.183384
b_4	0.061418	0.146039
b_5		0.068130
C	0.000292	0.000117
Wald Test (b_1= b_2= b_3= b_4= 0)	43.37603 (0.000000)*	
Wald Test (b_1= b_2= b_3= b_4= b_5=0)		106.6968 (0.000000)*

*- Significant at 1%

Table 5: Vector Error Correction Model

$$\Delta ln(F_t) = Z + \alpha v_{t-1} + \sum_{j=1}^{m} k_i \Delta ln(F)_{t-j} + \sum_{i=1}^{n} d_j \Delta ln(S)_{t-i} + \epsilon_t \quad \ldots\ldots(Eq.3)$$

Method: Least Squares (White Heteroscedasticity consistent standard errors and covariance)

Parameters	MCXMETAL	MCXENERGY
α	-0.140108	-0.053895

	(0.0101)	(0.0666)
k_1	0.042919	0.052387
k_2	0.039771	-0.026968
k_3	0.002178	-0.090479
k_4	-0.034388	-0.088654
k_5		-0.054103
d_1	0.024467	0.059368
d_2	-0.029745	0.069813
d_3	-0.014188	0.075599
d_4	0.049457	0.080564
d_5		0.068503
Z	0.000382	0.000239
Wald Test (d_1= d_2= d_3= d_4= =0)	5.547774 (0.235562)	
Wald Test (d_1= d_2= d_3= d_4= d_5=0)		8.015344 (0.155392)

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IMPACT OF MERGERS & ACQUISITIONS ON FINANCIAL PERFORMANCE OF INDIAN COMPANIES

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ABSTRACT

Mergers and Acquisitions (M&As) are important corporate strategies that are perceived to help the firms in attaining competitive edge through improved financial performance and thereby gain greater market shares. The rationale behind conducting this research study remains in facilitating the shareholders of the Indian companies with industry wise trend of financial performance with respect to M&A incidents helping them to evaluate riskiness of their share capital in a company undergoing M&As.

The objective of the study was to assess whether M&As were efficient enough to improve the financial performance of the acquiring Indian companies during the post-M&A period. Since return on equity (ROE) ratio is a measure of efficiency more than a measure of profit (i.e. how efficiently shareholders' capital is employed to earn more profits), ROE was considered as an assessment tool for financial performance of the companies. The Indian companies into existence during the horizon period of FY 2000-01 to FY 2014-15 (15 years) were segregated into two major sectors, viz. Financial (consisted of Banks and Other financial institutions) and Non-financial (consisted of Construction & Real estate, Energy & power and Manufacturing industries) for the research analysis. Random sampling was done to select sample companies/ cases of acquisition from the respective population for all the five industries and statistical tests (viz. Paired-t test and Chi square test) were conducted to assess the research objective.

On the basis of analysis of statistical test results, all five industries are found to have a downward trend of financial performance on an average over a period of time during the test horizon. While M&A incidents in two industries (viz. Banks and Construction & Real estate) are found efficient to hedge the financial performance against deterioration, the M&A incidents of three other industries (viz. Other financial institutions, Energy & Power and Manufacturing) are found inefficient to hedge the financial performance against further deterioration during the test horizon.

KEYWORDS
Mergers and Acquisitions, Financial performance, Indian companies, Return on equity (ROE), Financial and Non-financial sectors, Random sampling, Paired-t test, Chi-square test

1. INTRODUCTION

Mergers and acquisitions (M&As) are very popular financial activity amongst the business corporate. The merger is a corporate strategy through which one or more entities extinguish or lose their legal existence, where as acquisition is the process of acquiring another company and gaining control over it. Mergers and acquisitions are important corporate strategies that are perceived to help the firms in external growth providing a competitive edge over the industry. The M&As may impact the corporate performance in different perspectives (eg. financial perspective, marketing perspective, HR perspective etc.) and several parameters can be used for assessing performance from each of those perspectives. Comparative analysis of financial performance of a particular group of companies or same company for different time periods can be obtained through different financial ratios.

However, the real success of M&As in terms of financial perspective can be determined by its ability to improve ROE significantly during the post M&A period. This is because ROE is a measure of efficiency more than a measure of profit. A higher ROE indicates the company's ability to generate more profit on the same shareholders' capital. Hence, it is an indicator of how efficiently the company's management is deploying the shareholders' capital. Generally, better ROE helps in achieving higher market price of the shares which in turn leads the company towards ultimate financial objective of shareholders' wealth maximization.

2. OBJECTIVE

The objective of the research study was to examine whether M&As were efficient enough to improve the financial performance of the acquiring Indian companies during the post-M&A period with the help of the following research queries:

i) Are ROE in post M&A period significantly better than pre M&A period?
ii) Are ROE better off in post M&A period than it would have been in non M&A situation?
iii) Do ROE depend on M&A incident?

3. MEASUREMENT OF FINANCIAL PERFORMANCE

Various parameters can be used for assessing the financial performance of a company. However, Return on Equity (ROE) or Return on Net worth (RONW) was considered as the parameter for evaluating financial performance of the companies for this research study. The rationale behind using ROE as the parameter is that it is the measure of efficiency more than a measure of profit. Higher ROE signifies the company's ability to generate higher profits (NPAT) on the same shareholders' capital or net worth of the company. Hence, it is an indicator of how efficiently the company's management is deploying the shareholders' capital. Generally, better ROE helps in achieving higher market price of the shares which in turn leads the company towards ultimate financial objective of shareholders' wealth maximization.

The ROE ratio can be further bifurcated into three components (viz. net profit margin, asset turnover and financial leverage) through Du-Pont analysis as under:

$$ROE = \frac{\text{NPAT}}{\text{Net worth}}$$

$$= \frac{\text{NPAT}}{\text{Sales}} * \frac{\text{Sales}}{\text{Avg. Assets}} * \frac{\text{Avg. Assets}}{\text{Net worth}}$$

= Net profit margin * Asset turnover * Financial leverage

Hence, **better ROE** can be achieved through **higher net profit margin** which indicates higher net profit after tax (NPAT) for a given sales, and/or **higher asset turnover** which indicates higher sales for the given avg. assets, and/or **higher financial leverage** which indicates higher avg. assets for the given net worth.

4. LITERATURE REVIEW

K Ramakrishnan (2008) in the research article on **"**Long term post merger performance of firms in India" concluded that on an average the mergers lead to improved financial performance of the Indian firms in long term period.

Mahesh R. & Daddikar Prasad (2012) in their research study on **"**Post merger & acquisition financial performance analysis of Indian Airlines companies" concluded that post merger financial performance of Indian Airlines industry were not significantly better than pre-merger performance during the horizon period of 2005 to 2010.

Long Hoang Pham (2014) in the research paper on "An analysis of pre and post acquisition financial performance of Czech Banks" found that there was no significant improvement in terms of financial performance of Czech Banks during post acquisition period.

Dr. Jay Desai and Nisarg A. Joshi (2015) in their research paper on **"**A study on mergers and acquisitions in Oil & Gas sector in India and their impact on operating performance of shareholders' wealth" concluded that mergers and acquisitions were unable to create immediate shareholders' wealth and profit margins for the acquiring firm in short term period but provides competitive edge over a long period in Oil and Gas sector.

5. RESEARCH DESIGN

5.1 Population: The population under consideration was M&As of Indian companies during FY 2000-01 to FY 2014-15 (15 years). Total no. of Indian companies undergone M&As during the said horizon period was 10,173 companies which consisted of 2353 companies of financial sector and 7820 companies of non-financial sector. Financial sector consisted of 190 Banks and 2163 Other financial institutions whereas non-financial sector consisted of 2670 Construction & Real estate, 716 Energy and power and 4434 Manufacturing companies. Total no. of acquiring and non-acquiring companies were 212 and 9961 respectively. The sector wise classification of companies and schematic distribution of industries are shown in the Diagram 01 and Chart 01 respectively. The respective total no. of companies under study are as indicated in the bracket in Diagram 01.

5.2 Sample Design:

Random sampling was conducted in the MS excel sheet for sorting samples from the population. The rationale behind choosing the random sampling for this project is that it is the most scientific way of selection in case of parametric testing since each sample is having equal chance of getting selected.

5.3 Test Statistics:

Following statistical tests were conducted for the research analysis:

i) Paired t-tests for means

ii) Chi Square test for independence of attribute

The level of significance (α) was considered as 5% (i.e. **α = 0.05**) for all these tests.

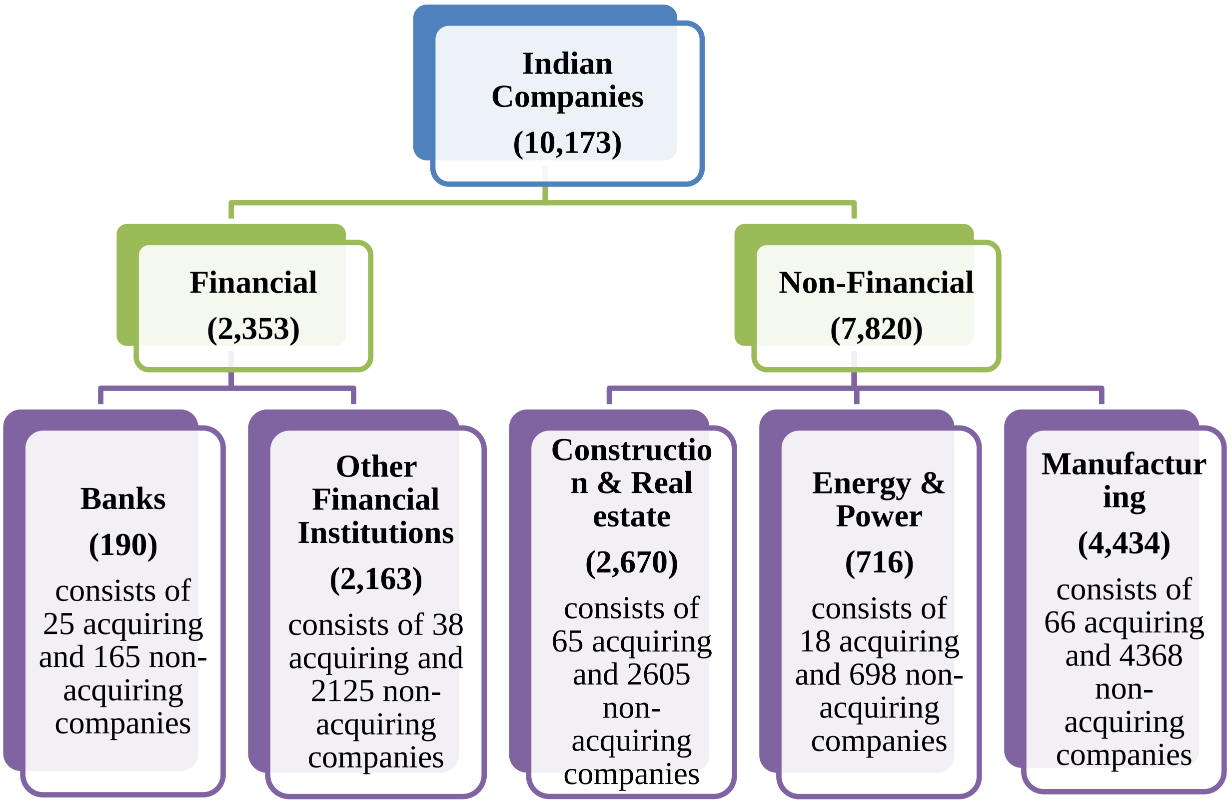


Diagram 01: Sector wise classification of Indian companies under study

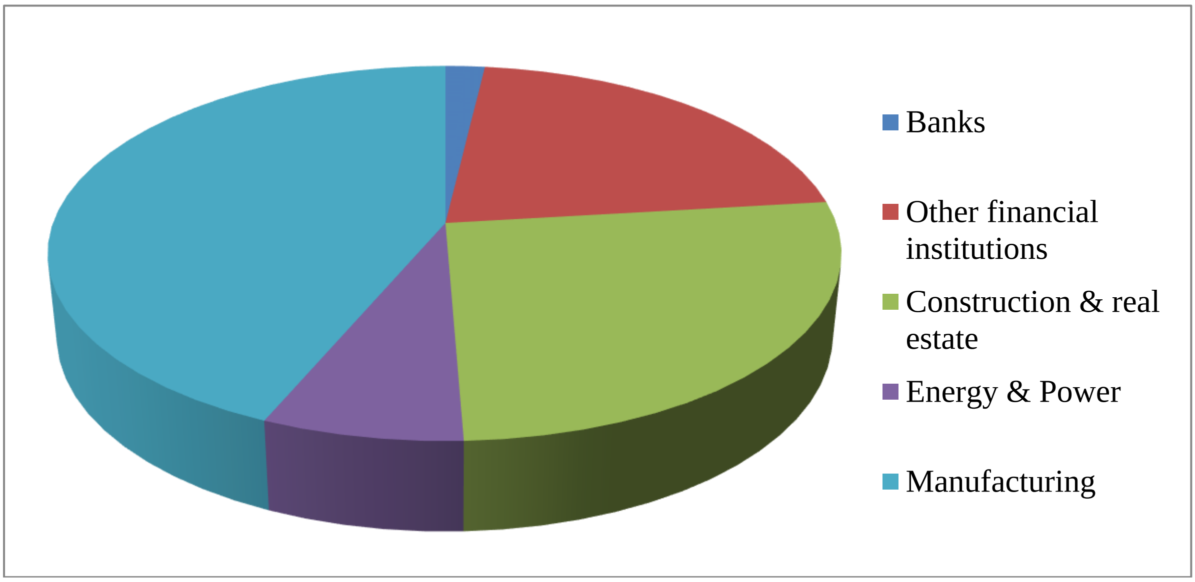


Chart 01: Schematic distribution of industries under the research study

6. DATA COLLECTION

The research was conducted purely on the basis of the data accessed through CMIE Prowess software.

7. STATISTICAL ANALYSIS

7.1 Analysis of financial performance- Banking industry

7.1.1 Paired-t test was conducted to evaluate whether ROE in post M&A period is significantly better than pre M&A period in Banking industry of India.

i) Hypotheses

The null and alternate hypotheses for the paired-t test were as follows:

H0: u_d=0 (i.e. u_2-u_1=0) or, There is no significant improvement in ROE post mergers & acquisitions in "Banking" industry of India.

H1: u_d>0 (i.e. u_2>u_1) or, There is significant improvement in ROE post mergers & acquisitions in "Banking" industry of India.

Where, u_2 is mean post M&A ROE of the banks and u_1 is mean pre M&A ROE of the banks and u_d is difference between u_2 and u_1

ii) Methodology

First of all, the samples of 30 acquisition cases were randomly selected from the population of acquisition cases of banks (52 cases of 25 acquiring banks) during the horizon period. The corresponding 'date of deal completed of the M&A' and 'the target company' were identified for the individual acquisition cases. Then the corresponding ROE figures were plotted for three years prior to deal completion (i.e. pre M&A period), year in which the respective M&A deal was completed (i.e. year of M&A), and three years after the deal completion (i.e. post M&A period) in the MS excel sheet. Then, mean ROE (i.e. average of 3 years ROE) were computed for the pre M&A and post M&A period (i.e. u_1 and u_2) respectively. The difference (i.e. u_d) between u_1 and u_2 for the respective sample banks were calculated in the MS excel sheet. The samples mean ($\bar{X}_d$) was calculated taking the average of u_d values for 30 sample acquisition cases of banks. The standard deviation (S_d) of these u_d values was calculated in the excel sheet. The hypothesized value for this test was "0" since the null hypothesis assumed the difference between u_1 and u_2 as 0. The sample size (n) for the t-test was 30. Refer to Table 01.

iii) Paired t-test Result

The formula for t value in paired t test is as under:

t stat = ($\bar{X}$d- hypothesized value) / (Sd÷√n)

For the present test, $\bar{X}$d = -7.47, Sd= 8.747, hypothesized value=0, n= 30, t stat= -4.674 (Refer to Table 01). The result obtained through MS excel data analysis is presented in Table 02. Since, t stat is found to be a negative value for this test, the **effective p value (t, D.O.F) would be (1-0.0000313) = 0.99997 i.e. 99.99 %**

iv) Paired t-test Conclusion

Since, t stat (-4.674) < t critical one tail (1.699), H0 is accepted. H1 is rejected. **There is no significant improvement in ROE during post M&A than pre M&A period of "Banking" industry in India**. The pre-M&A and post-M&A ROE (mean) of the sample banks are plotted in Chart 02 for comparative analysis.

Is ROE post M&A significantly greater than pre M&A of "Banking" industry in India?

Test Statistics: Paired t-test

H0: ud=0 (i.e. u2-u1=0) or, There is no significant improvement in ROE post mergers & acquisitions of "Banking" industry in India.

H1: ud>0 (i.e. u2>u1) or, There is significant improvement in ROE post mergers & acquisitions of "Banking" industry in India.

Sl. No.	Acquiring Company	M&A Date (Date of deal completion)	Target company	Pre-M&A Analysis: Return on Equity (ROE) Year (-3)	Year (-2)	Year (-1)	Mean ROE (Mean 1)	Year of M&A: Return on Equity (ROE) Year 0	Post M&A Analysis: Return on Equity (ROE) Year 1	Year 2	Year 3	Mean ROE (Mean 2)	Difference between Mean 2 and Mean 1
1	**Deutsche Bank A G**	29-Dec-04	H C L Technologies Ltd.	17.35	27.34	31.04	25.24	7.18	9.9	13.42	12.39	11.90	-13.34
2	**Bank Of Baroda**	27-Mar-06	B O B Housing Finance Ltd. [Merged]	21	21.48	12.79	18.42	12.28	12.45	14.58	18.62	15.22	-3.21
3	**Shamrao Vithal Co-Op. Bank Ltd.**	09-Feb-06	Saptashrungi Cooperative Bank	-	13.48	7.83	10.66	7.18	6.46	8.88	12.35	9.23	-1.43
4	**J P Morgan Chase Bank, National Associatio**	27-Sep-05	Binani Cement Ltd.	9.88	7.62	19.31	12.27	17.99	12.16	15.19	19.38	15.58	3.31
5	**B N P Paribas**	13-Mar-07	Geojit B N P Paribas Financial Services Ltd.	-5.56	0	8.01	0.82	10.59	13.62	12.32	10.9	12.28	11.46
6	**Saraswat Co-Operative Bank Ltd.**	05-Feb-05	Maratha Mandir Co-Op. Bank Ltd. [Merged]		20.01	23.24	21.63	16.68	15.65	14.23	16.7	15.53	-6.10
7	**State Bank Of India**	14-Jun-09	Nepal S B I Bank Ltd.	15.41	16.75	17.05	16.40	14.8	12.62	15.75	15.47	14.61	-1.79
8	**Vijaya Bank**	05-Mar-04	Vibank Housing Finance Ltd.	20.78	35.09	32.93	29.60	40.58	27.05	8.04	19.09	18.06	-11.54
9	**Punjab National Bank**	16-Jan-13	P N B Metlife India Insurance Co. Ltd.	26.59	26.38	23.43	25.47	17.5	10.5	8.57	-10.85	2.74	-22.73
10	**I D B I Bank Ltd.**	06-Jul-11	Universal Commodity Exchange Ltd.	12.08	13.19	15.81	13.69	13.43	10.16	5.42	3.92	6.50	-7.19
11	**Kotak Mahindra Bank Ltd.**	20-Oct-06	Kotak Mahindra Inc.	13.72	12.45	14.58	13.58	11.19	11.19	7.36	13.34	10.63	-2.95
12	**Dena Bank**	20-May-13	M V L Ltd.	22.22	22.49	18.49	21.07	10.05	4.11	-14.52		-5.21	-26.27
13	**Bank Of India**	22-Jun-07	Pt Bank Swadesi T B K	8.5	15.37	21.25	15.04	27.58	29.18	14.16	17.3	20.21	5.17
14	**Kotak Mahindra Bank Ltd.**	16-Mar-06	Kotak Mahindra Capital Co. Ltd.	8.55	13.72	12.45	11.57	14.58	11.19	11.19	7.36	9.91	-1.66
15	**Hongkong & Shanghai Banking Corpn. Ltd.**	09-Jun-04	Axis Bank Ltd.	15.58	9.31	9.18	11.36	12	14.13	17.6	17.68	16.47	5.11
16	**State Bank Of India**	02-Sep-13	Bank State Bank Of India (Indonesia)	12.62	15.75	15.47	14.61	10.04	10.49	7.22		8.86	-5.76
17	**Royal Bank Of Scotland N V**	26-Mar-07	India Cements Ltd.	18.66	15.63	16.47	16.92	21.63	12.93	0.82	-4.49	3.09	-13.83
18	**Canara Bank**	09-Jul-13	Brickwork Ratings India Pvt. Ltd.	26.42	17.02	13.21	18.88	10.38	10.69	-10.69		0.00	-18.88
19	**Saraswat Co-Operative Bank Ltd.**	12-Oct-06	Mandvi Co-Operative Bank Ltd. [Merged]	23.24	16.68	15.65	18.52	14.23	16.7	13.54	7.53	12.59	-5.93
20	**Axis Bank Ltd.**	26-Apr-04	Shriram Investments Ltd. [Merged]	29.8	25.06	27.06	27.31	18.8	18.28	20.96	17.6	18.95	-8.36
21	**Bank Of India**	07-May-12	B O I Axa Invst. Managers Pvt. Ltd.	14.16	17.3	15	15.49	12.95	11.16	6.32	-22.47	-1.66	-17.15
22	**Indian Overseas Bank**	12-Sep-06	Bharat Overseas Bank Ltd. [Merged]	34.64	30.78	28.71	31.38	29.11	27.88	24.8	11.67	21.45	-9.93
23	**Canara Bank**	16-Mar-05	Central Depository Services (India) Ltd.	27.84	27.66	29.23	28.24	19.95	20.65	18.78	19.08	19.50	-8.74
24	**Kotak Mahindra Bank Ltd.**	16-Mar-06	Kotak Securities Ltd.	8.55	13.72	12.45	11.57	14.58	11.19	11.19	7.36	9.91	-1.66
25	**Axis Bank Ltd.**	12-May-11	Max Life Insurance Co. Ltd.	19.12	19.15	19.34	19.20	20.29	18.53	17.43	17.75	17.90	-1.30
26	**Punjab National Bank**	02-Jul-04	Principal P N B Asset Mgmt. Co. Pvt. Ltd.	24.65	27.31	27.56	26.51	22.7	17.01	16.03	19.58	17.54	-8.97
27	**Vijaya Bank**	02-Jul-04	Principal P N B Asset Mgmt. Co. Pvt. Ltd.	35.09	32.93	40.58	36.20	27.05	8.04	19.09	18.26	15.13	-21.07
28	**Axis Bank Ltd.**	26-Apr-04	Shriram Transport Finance Co. Ltd.	29.8	25.06	27.06	27.31	18.8	18.28	20.96	17.6	18.95	-8.36
29	**Bank Of India**	07-May-12	B O I Axa Trustee Services Pvt. Ltd.	14.16	17.3	15	15.49	12.95	11.16	6.32	-22.47	-1.66	-17.15
30	**Kotak Mahindra Bank Ltd.**	29-Sep-14	Multi Commodity Exchange Of India Ltd.	14.65	15.6	13.82	14.69	14.12	10.97			10.97	-3.72
	Mean			**18.55**	**19.05**	**19.47**		**16.71**	**14.14**	**11.21**	**10.03**		
												Sample mean ($\bar{X}d$)	-7.47
												Sample standard deviation(Sd)	8.747331201
												n	30
												DOF	29
												$t = (\bar{X}d - \text{hypothesized value})/(Sd \div \sqrt{n})$	**-4.674**
												Level of significance (5%)	0.050
												P-value (One tailed test)	0.99997

Table 01: t-test analysis- Banking industry of India (Post M&A vs. Pre M&A)

t-Test: Paired Two Sample for Means		
	Mean ROE (Mean 2)	*Mean ROE (Mean 1)*
Mean	11.50588889	18.97122222
Variance	52.24739573	58.44053849
Observations	30	30
Pearson Correlation	0.309209365	
Hypothesized Mean Difference	0	
df	29	
t Stat	**-4.674490278**	
P(T<=t) one-tail	3.13189E-05	
t Critical one-tail	**1.699126996**	
P(T<=t) two-tail	6.26378E-05	
t Critical two-tail	2.045229611	

Table 02: t-test result- Banking industry of India (Post M&A vs. Pre M&A)

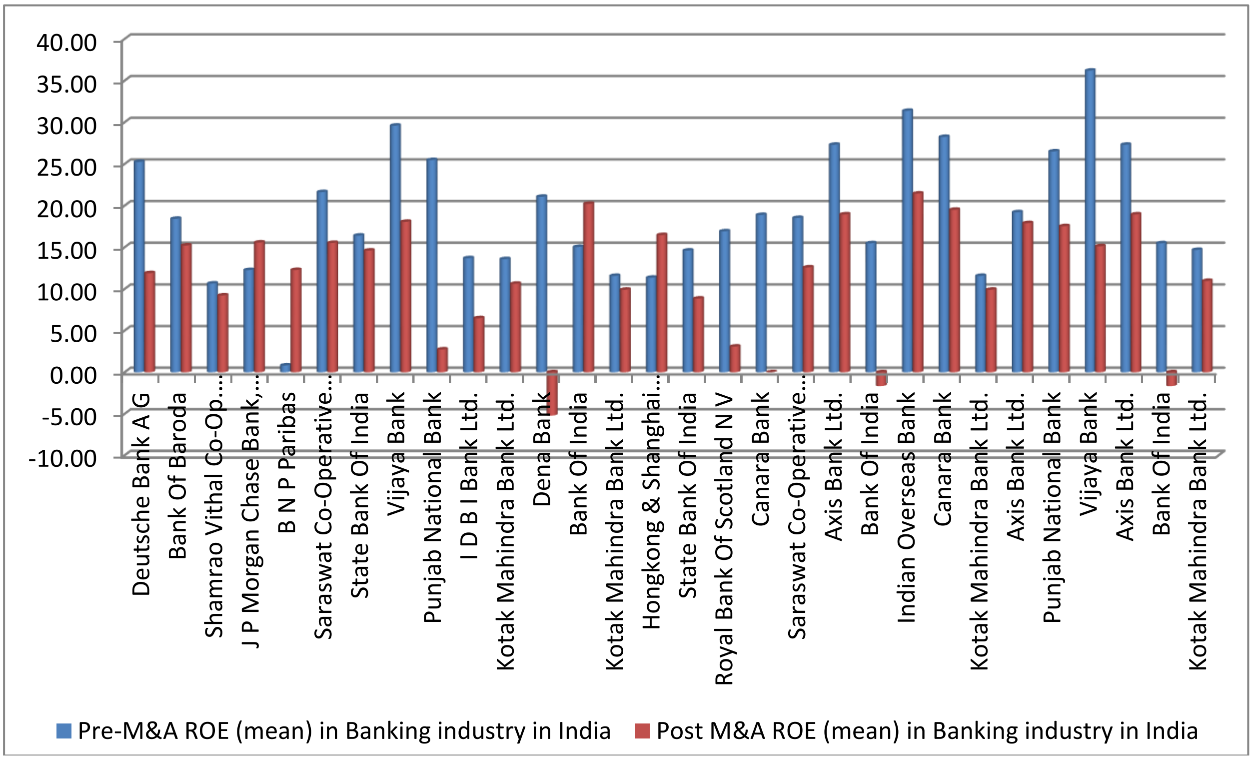


Chart 02: Pre-M&A Vs. Post-M&A ROE (mean) in Banking industry in India

7.1.2 Paired-t test was conducted to evaluate whether ROE in post M&A period is significantly better than it would have been in non-M&A situation in Banking industry of India in the similar manner as discussed in 7.1.1. It is concluded from the test result that **there is significant improvement in ROE post M&A of acquiring banks than non-acquiring banks during the same period**.

7.1.3 Confirmation test- Chi-square test was conducted to evaluate whether ROE depends on M&A incident in Banking industry of India. The periods under consideration are pre M&A, year of M&A and post M&A period.

i) Hypotheses

The null and alternate hypotheses for the Chi square test were as under:

H0: ROE is independent of M&A incidents in "Banking" industry in India.

H1: ROE depends on M&A incidents in "Banking" industry in India.

ii) Chi square test Result and Conclusion

$$\text{Chi square ROE } (X^2) = \sum \text{Chi square ROE}_{(r,c)} = \sum \frac{[\text{Observed Value}_{(r,c)} - \text{Expected Value}_{(r,c)}]^2}{\text{Expected value}_{(r,c)}}$$

Where, r and c mean row and column respectively.

In the present case, Chi square ROE (X^2) calculated = 151.55

D.O.F = (r-1) (c-1) = (30-1)*(3-1) = 58

Level of significance = 5%

For 58 D.O.F and 5% level of significance, Chi square ROE (X^2) table = 76.778.

Since, X^2 calculated > X^2 table, Ho is rejected. H1 is accepted. **ROE has dependence on M&A incidents in Banking industry in India**. Refer to Tables 03 and 04.

Does ROE has any dependance with M&A incidents of "Banking" industry in India?

Test Statistics: Chi Square test for independence of attribute

H0: ROE is independent of M&A incidents in "Banking" industry in India.

H1: ROE depends on M&A incidents in "Banking" industry in India.

Table for Observed (Oi) ROE Values

		Mean ROE			
		Pre-M&A Period	Year of M&A	Post M&A period	Row Total
1	Deutsche Bank A G	25.24	7.18	11.90	44.33
2	Bank Of Baroda	18.42	12.28	15.22	45.92
3	Shamrao Vithal Co-Op. Bank Ltd.	10.66	7.18	9.23	27.07
4	J P Morgan Chase Bank, National Associ	12.27	17.99	15.58	45.84
5	B N P Paribas	0.82	10.59	12.28	23.69
6	Saraswat Co-Operative Bank Ltd.	21.63	16.68	15.53	53.83
7	State Bank Of India	16.40	14.8	14.61	45.82
8	Vijaya Bank	29.60	40.58	18.06	88.24
9	Punjab National Bank	25.47	17.5	2.74	45.71
10	I D B I Bank Ltd.	13.69	13.43	6.50	33.62
11	Kotak Mahindra Bank Ltd.	13.58	11.19	10.63	35.40
12	Dena Bank	21.07	10.05	-5.21	25.91
13	Bank Of India	15.04	27.58	20.21	62.83
14	Kotak Mahindra Bank Ltd.	11.57	14.58	9.91	36.07
15	Hongkong & Shanghai Banking Corpn. L	11.36	12	16.47	39.83
16	State Bank Of India	14.61	10.04	8.86	33.51
17	Royal Bank Of Scotland N V	16.92	21.63	3.09	41.64
18	Canara Bank	18.88	10.38	0.00	29.26
19	Saraswat Co-Operative Bank Ltd.	18.52	14.23	12.59	45.34
20	Axis Bank Ltd.	27.31	18.8	18.95	65.05
21	Bank Of India	15.49	12.95	-1.66	26.77
22	Indian Overseas Bank	31.38	29.11	21.45	81.94
23	Canara Bank	28.24	19.95	19.50	67.70
24	Kotak Mahindra Bank Ltd.	11.57	14.58	9.91	36.07
25	Axis Bank Ltd.	19.20	20.29	17.90	57.40
26	Punjab National Bank	26.51	22.7	17.54	66.75
27	Vijaya Bank	36.20	27.05	15.13	78.38
28	Axis Bank Ltd.	27.31	18.8	18.95	65.05
29	Bank Of India	15.49	12.95	-1.66	26.77
30	Kotak Mahindra Bank Ltd.	14.69	14.12	10.97	39.78
	Column Total	569.14	501.19	345.18	**1415.50**

Table for Expected (Ei) ROE Values

		Mean ROE			
		Pre-M&A Period	Year of M&A	Post M&A period	Row Total
1	Deutsche Bank A G	17.82	15.69	10.81	44.33
2	Bank Of Baroda	18.46	16.26	11.20	45.92
3	Shamrao Vithal Co-Op. Bank Ltd.	10.88	9.58	6.60	27.07
4	J P Morgan Chase Bank, National Ass	18.43	16.23	11.18	45.84
5	B N P Paribas	9.52	8.39	5.78	23.69
6	Saraswat Co-Operative Bank Ltd.	21.64	19.06	13.13	53.83
7	State Bank Of India	18.42	16.22	11.17	45.82
8	Vijaya Bank	35.48	31.24	21.52	88.24
9	Punjab National Bank	18.38	16.18	11.15	45.71
10	I D B I Bank Ltd.	13.52	11.91	8.20	33.62
11	Kotak Mahindra Bank Ltd.	14.23	12.54	8.63	35.40
12	Dena Bank	10.42	9.17	6.32	25.91
13	Bank Of India	25.26	22.25	15.32	62.83
14	Kotak Mahindra Bank Ltd.	14.50	12.77	8.80	36.07
15	Hongkong & Shanghai Banking Corpr	16.01	14.10	9.71	39.83
16	State Bank Of India	13.47	11.86	8.17	33.51
17	Royal Bank Of Scotland N V	16.74	14.74	10.15	41.64
18	Canara Bank	11.77	10.36	7.14	29.26
19	Saraswat Co-Operative Bank Ltd.	18.23	16.05	11.06	45.34
20	Axis Bank Ltd.	26.16	23.03	15.86	65.05
21	Bank Of India	10.76	9.48	6.53	26.77
22	Indian Overseas Bank	32.94	29.01	19.98	81.94
23	Canara Bank	27.22	23.97	16.51	67.70
24	Kotak Mahindra Bank Ltd.	14.50	12.77	8.80	36.07
25	Axis Bank Ltd.	23.08	20.32	14.00	57.40
26	Punjab National Bank	26.84	23.63	16.28	66.75
27	Vijaya Bank	31.51	27.75	19.11	78.38
28	Axis Bank Ltd.	26.16	23.03	15.86	65.05
29	Bank Of India	10.76	9.48	6.53	26.77
30	Kotak Mahindra Bank Ltd.	15.99	14.08	9.70	39.78
	Column Total	569.14	501.19	345.18	**1415.50**

Table 03: Chi square test for independence of ROE on M&A-Banking industry of India

Table for Chi Square(X2) ROE Values

		Mean ROE			
		Pre-M&A Period	Year of M&A	Post M&A period	
1	Deutsche Bank A G	3.09	4.62	0.11	
2	Bank Of Baroda	0.00	0.97	1.44	
3	Shamrao Vithal Co-Op. Bank Ltd.	0.00	0.60	1.05	
4	J P Morgan Chase Bank, National A:	2.06	0.19	1.73	
5	B N P Paribas	7.96	0.58	7.32	
6	Saraswat Co-Operative Bank Ltd.	0.00	0.30	0.44	
7	State Bank Of India	0.22	0.12	1.06	
8	Vijaya Bank	0.97	2.79	0.56	
9	Punjab National Bank	2.73	0.11	6.34	
10	I D B I Bank Ltd.	0.00	0.20	0.35	
11	Kotak Mahindra Bank Ltd.	0.03	0.14	0.46	
12	Dena Bank	10.88	0.08	21.02	
13	Bank Of India	4.14	1.28	1.56	
14	Kotak Mahindra Bank Ltd.	0.59	0.26	0.14	
15	Hongkong & Shanghai Banking Corp	1.35	0.31	4.70	
16	State Bank Of India	0.10	0.28	0.06	
17	Royal Bank Of Scotland N V	0.00	3.22	4.92	
18	Canara Bank	4.31	0.00	7.14	
19	Saraswat Co-Operative Bank Ltd.	0.00	0.21	0.21	
20	Axis Bank Ltd.	0.05	0.78	0.60	
21	Bank Of India	2.07	1.27	10.28	
22	Indian Overseas Bank	0.07	0.00	0.11	
23	Canara Bank	0.04	0.67	0.54	
24	Kotak Mahindra Bank Ltd.	0.59	0.26	0.14	
25	Axis Bank Ltd.	0.65	0.00	1.09	
26	Punjab National Bank	0.00	0.04	0.10	
27	Vijaya Bank	0.70	0.02	0.83	
28	Axis Bank Ltd.	0.05	0.78	0.60	
29	Bank Of India	2.07	1.27	10.28	
30	Kotak Mahindra Bank Ltd.	0.11	0.00	0.17	
		44.86	21.34	85.35	151.55

Table 04: Chi square test result- Banking industry of India

Similarly, statistical analysis of financial performance of Other financial institutions, Construction & Real estate, Energy & Power and Manufacturing industries were done for the horizon period as discussed in 7.1. The test results are tabulated in Table 05.

Sl. No.	Sector/Industry	Are ROE (mean) Post- M&A significantly > ROE (mean) Pre- M&A?		Are ROE (mean) Post- M&A significantly > ROE (mean) Non- M&A condition?		Do ROE have any dependence with M&A incidents?	
		[Paired-t test @ 5% level of significance]		[Paired-t test @ 5% level of significance]		[Chi square test @ 5% level of significance]	
		p- value	Result	p- value	Result	p- value	Result
A.	Financial						
(I)	Banks	0.99997	No	0.00242	Yes	2.69106E-10	Dependent
(II)	Other financial institutions	0.21787	No	0.29011	No	0.59061	Independent
B.	Non-financial						
(I)	Construction & real estate	0.99781	No	0.01569	Yes	6.40242E-10	Dependent
(II)	Energy & Power	0.98054	No	0.29592	No	0.71089	Independent
(III)	Manufacturing	0.09428	No	0.43852	No	0.82215	Independent

Table 05: Sector & Industry wise statistical test results

8. INFERENCES

8.1 The mean industry ROE **in case of M&A incident** are computed in Table 06. The considerations are pre-M&A period (three financial years), year of M&A and post-M&A period (three financial years) for each industry.

			Pre-M&A period			Year of M&A	Post M&A period		
			Mean Industry ROE			Mean Industry ROE	Mean Industry ROE		
			Year (-3)	Year (-2)	Year (-1)	Year 0	Year 1	Year 2	Year 3
Sector/Industry	Financial	Banks	18.55	19.05	19.47	16.71	14.14	11.21	10.03
		Other Financial Institutions	-3.76	8.99	3.94	1.68	12.28	11.66	5.93
	Non-financial	Contruction & Real estate	21.43	17.30	16.10	14.32	9.19	4.17	1.01
		Energy & Power	10.05	7.97	7.89	2.18	2.39	-7.88	-20.34
		Manufacturing	11.35	13.98	18.27	14.45	16.79	18.25	15.10

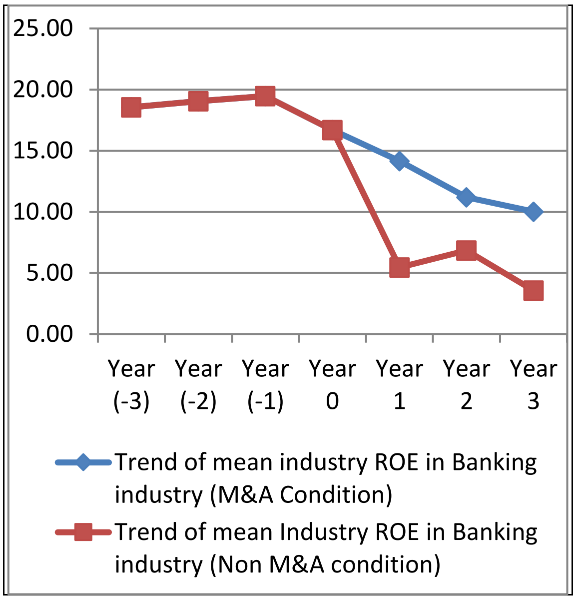
Table 06: Mean industry ROE in case of M&A incident

Similarly, the mean industry ROE **in case of no M&A incident** are computed in Table 07. The considerations are pre-M&A period (three financial years), year of M&A and Non-M&A period (three financial years) for each industry.

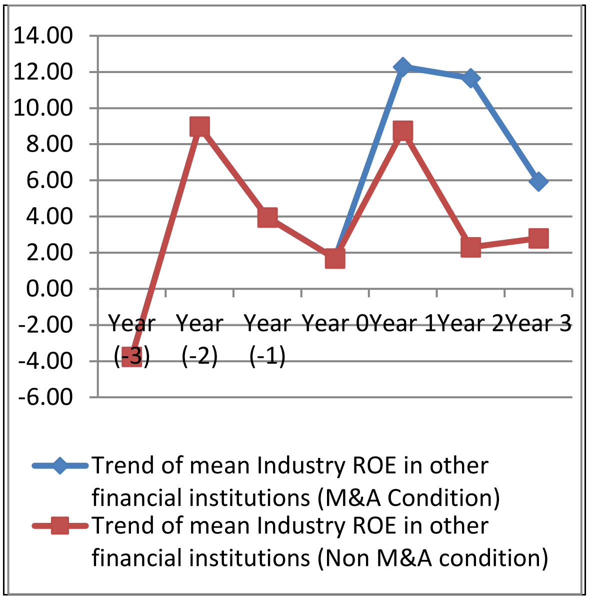
			Pre-M&A period			Year of M&A	Non M&A condition		
			Mean Industry ROE			Mean Industry ROE	Mean Industry ROE		
			Year (-3)	Year (-2)	Year (-1)	Year 0	Year 1	Year 2	Year 3
Sector/Industry	Financial	Banks	18.55	19.05	19.47	16.71	5.45	6.85	3.57
		Other Financial Institutions	-3.76	8.99	3.94	1.68	8.76	2.31	2.80
	Non-financial	Contruction & Real estate	21.43	17.30	16.10	14.32	0.98	2.12	0.09
		Energy & Power	10.05	7.97	7.89	2.18	-1.08	-14.12	-13.52
		Manufacturing	11.35	13.98	18.27	14.45	6.93	2.68	2.27

Table 07: Mean industry ROE in case of no M&A incident

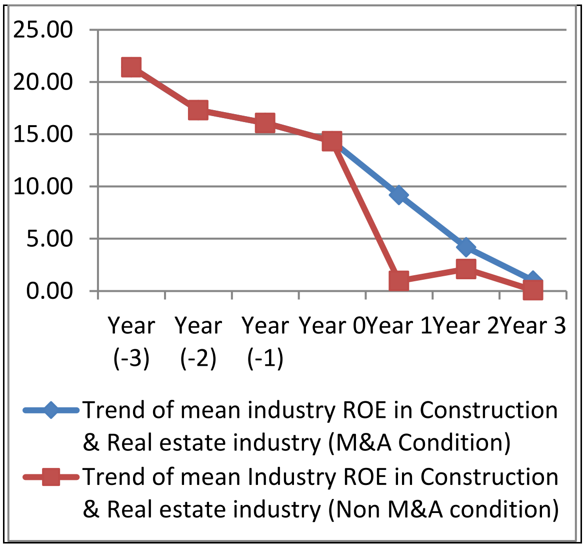
The values of mean industry ROE (as indicated in Table 06 and Table 07) of banks, other financial institutions, construction & real estate, energy & power and manufacturing during pre M&A period, year of M&A and post M&A period are plotted in the Graphs 01, 02, 03, 04 and 05 respectively . The X axis of these graphs represents years while Y axis of these graphs represents mean industry ROE. Three years of pre M&A period are indicated as year (-3), year (-2) and year (-1) respectively. Year of M&A is indicated as year 0. Three years of post M&A period are indicated as year 1, year 2 and year 3 respectively.



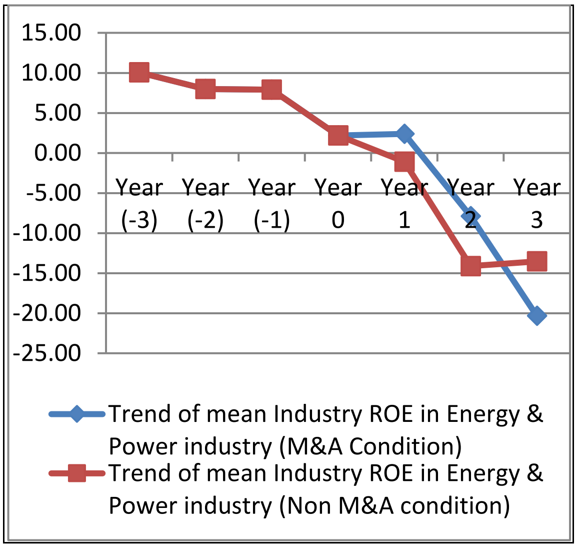
Graph 01: Banking Industry



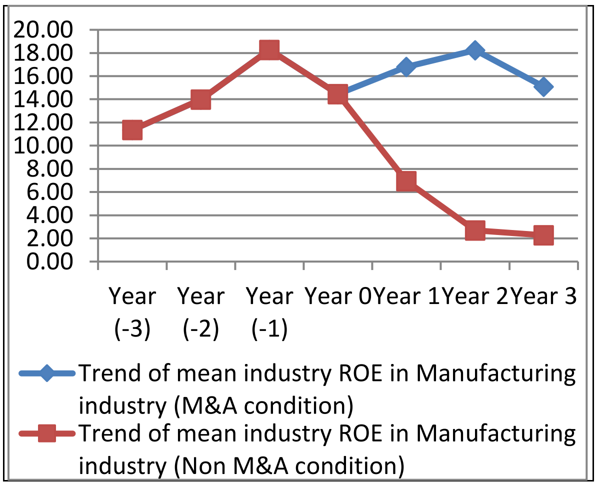
Graph 02: Other financial institutions



Graph 03: Construction & Real estate Industry



Graph 04: Energy & Power Industry



Graph 05: Manufacturing Industry

8.2 Classification of industries based on impact on financial performance due to M&A incidents:

The industries under the research study have been classified on the basis of ROE behaviours observed with respect to M&A incidents during the horizon period and represented in Table 08.

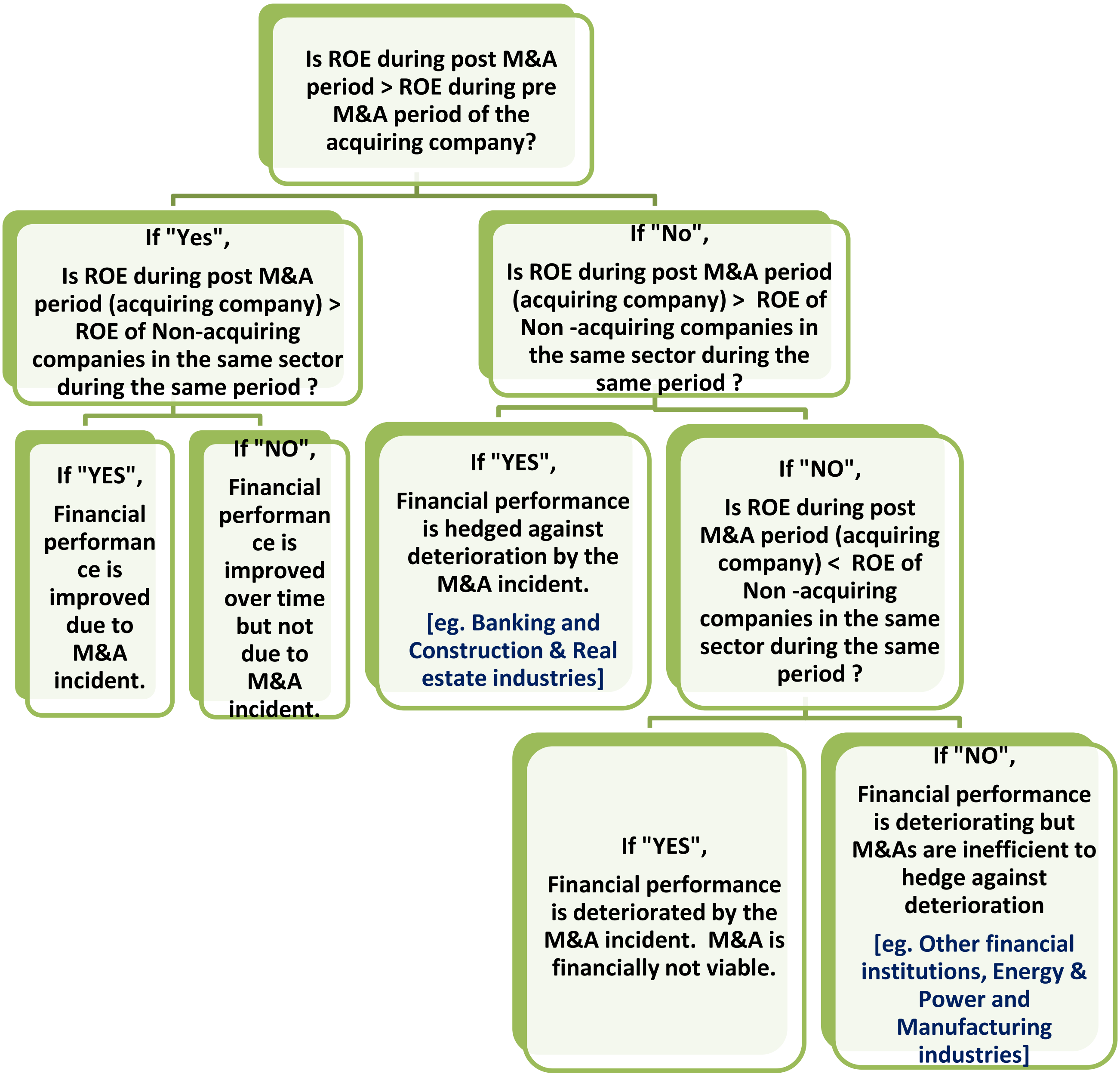
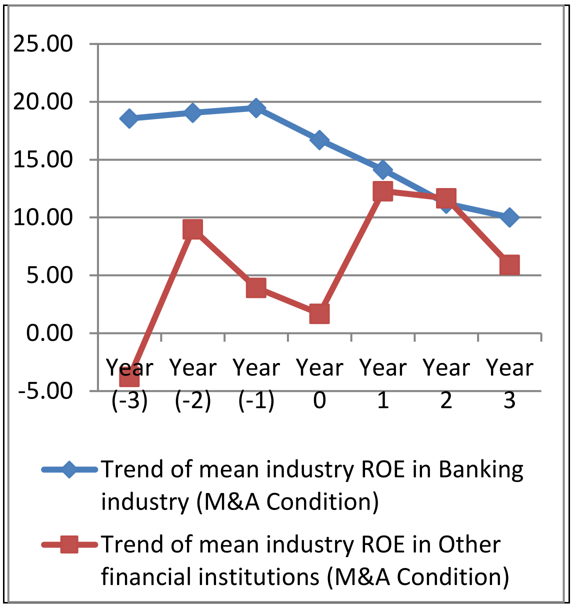


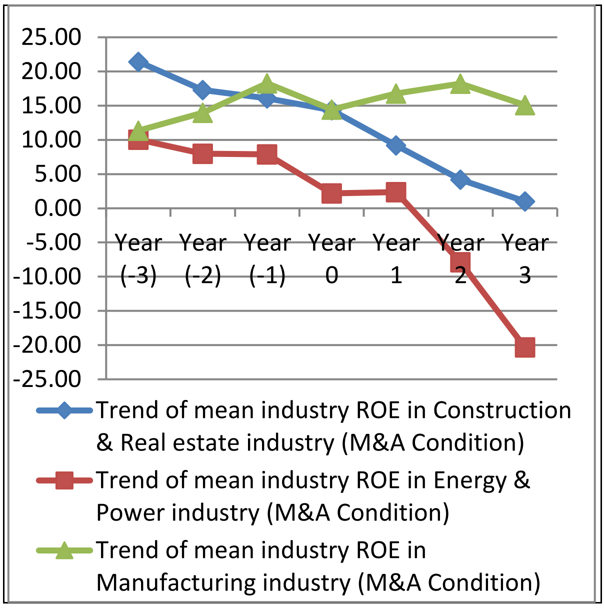
Table 08: Classification of industries based on financial performance due to M&A incidents

8.3 Comparative analysis of financial performance due to M&A incidents:

The financial performance measured with the help of ROE shows downward trend in all industries under study during the test horizon period. However, in financial sector, mean industry ROE of banks are still better off than other financial institutions due to M&A incidents and similarly in non-financial sector, mean industry ROE of manufacturing is better off than construction & real estate which is further better off than energy & power industry due to M&A incidents. Refer to the Graphs 06 and 07.



Graph 06: Mean industry ROE trend due to M&A incidents in Financial sector



Graph 07: Mean industry ROE trend due to M&A incidents in Non- financial sector

9. LIMITATIONS OF THE STUDY

Although ROE is most popular as a measure of corporate performance because it links the income statement (earnings) to the balance sheet (equity), it has some drawbacks as a measure of performance:

i) ROE does not consider cost of own capital.
ii) ROE is an accounting number and represented as a ratio of NPAT and net worth. Actual financial profit/loss is not evaluated through this method.

10. CONCLUSIONS

The following conclusions are drawn from the research results:

i) The **financial performance of the Indian companies shows a downward shift irrespective of M&A incidents** throughout sectors and industries during the horizon period of FY 2000-01 to FY 2014-15.
ii) The **M&A incidents are efficient in banks and construction & real estate industries** to hedge the financial performance against further erosion during the horizon period of FY 2000-01 to FY 2014-15.
iii) The **M&A incidents are inefficient in other financial institutions, energy & power and manufacturing industries** to hedge the financial performance against erosion during the horizon period of FY 2000-01 to FY 2014-15.
iv) Financial performance: **Banking industry** > **Other financial institutions of India** (FY 2000-01 to FY 2014-15)
v) Financial performance: **Manufacturing industry** > **Construction & Real estate industry** > **Energy & Power industry of India** (FY 2000-01 to FY 2014-15)

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PRICE DISCOVERY MECHANISM IN SPOT AND FUTURES MARKETS IN INDIA

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ABSTRACT

An attempt is made in this paper to empirically investigate the price discovery efficiency of Indian equity Futures Market. Investigation of the price discovery efficiency of speculative assets has gained significant importance in the recent past. Especially futures being the most economical financial assets are supposed to be informationally efficient and literature observes that significant lead lag relationship exists between the futures and spot market. In India, equity futures have gained immense importance in the country over the period of years, both stock and index futures. The degree of popularity of equity futures contracts can be judged from the fact that Indian equity stock and index futures contracts holds 1st and 3rd rank respectively amongst all markets where futures trading has been permitted.
Key words: Equity derivatives, Price discovery, Unit root test.
Jel Classification: *C22, C54, C58, E44.*

1. INTRODUCTION

Over the past two and a half decades, financial systems around the world have gained more importance in reallocating idle savings towards entrepreneurs and this is reflected through spectacular growth in the number of listed companies, presence of highly integrated global financial markets, mushroom growth in the volume of global depository receipts across borders and the increased role of foreign portfolio and institutional investments in emerging markets. These advancements in the investment system have simultaneously posed new trading challenges in global financial markets (like inter country/market volatility spillover, increase in exchange rate and inflation rate risk etc.) and have induced the emergence of sophisticated financial products, which could help market makers and traders to resolve these complexities by performing intelligent trading activities (viz; arbitrage, hedging, speculation etc.) and improve their portfolio value. In this context, the emergence of financial derivatives (namely; equity derivatives, swaps, interest rate derivatives etc.) has been a phenomenal event.

Derivatives are financial instruments, whose value is derived from their underlying security or basket of securities. Due to economic incentives of financial derivatives like lesser transaction cost and reduced initial investment, the trader may get highly leveraged position by using its products like Index Futures, Index Options, stock futures and stock options and can neutralize risk profile contained in their portfolio. Thus, these products serve as the instruments of price discovery, portfolio diversification and risk hedging for the traders.

Futures are one of the most popular derivative contracts and like other derivative products (namely; forward contracts, options, swaps, LEAPS, securitisation etc.) these derive their value from their underlying asset (i.e. equity stock/index, commodity, exchange rate, interest rate etc.), involves lower transaction cost and lesser initial capital commitments because traders (speculators, arbitrageurs and hedgers) are enabled to take positions by paying margin money only. Lower transaction cost and lesser initial capital commitments attract all kind of traders to take positions in the futures market, which are marked-to-market on daily basis and are settled at the time of the expiry of the contract (notified in advance by the exchange authorities). However, traders by taking reverse position(s) in futures market can square off their previous position(s) even prior to the expiration date. Long traders would gain, if the price of the underlying asset at the time of settlement is higher than the futures price and vice versa will be true for short traders. Therefore, taking position in the equity futures market is similar to the trading on market expectations for future intrinsic value of the equity stock/index.

Price discovery and risk transfer (i.e. Hedging) have been considered as the pivot functions of the futures market in all the economies (Telser (1981)). As we know, futures are the standardized forward contracts which are traded on stock exchanges. Cost-of-Carry model is followed to determine the price of the futures contract, which implies that futures represent the prospective price of the underlying asset in the cash market (Garbade and Sibler (1983)). For example; if the futures is traded at 2500 and the cash market at 2450, (if cost-of-carry model holds good) it implies that the futures will direct the next price move in the cash market, thus the next price of the underlying asset will be approximately 2500.

Price discovery mechanism refers to absorbing the new information, and reflecting it into the market prices. Price discovery in the cash market has been a serious issue for debate for the traders, professionals, regulatory bodies and the academicians. Efficient price discovery in the futures market has many advantages for the traders as well as for the regulators. Traders can manage their risk exposure in the cash market by taking reverse positions in the futures market. In many stock markets it has been observed that the volatility in the cash market has reduced in the post futures trading era as compared to the volatility in the pre futures trading era (Gulen and Mayhew (2000)). Reduction in the magnitude of volatility will certainly work for the benefit of all traders (both retail as well as big traders). Reduction in volatility ensures relatively stable price movements in the market, which will help the traders to take their decision in the market (subject to the experience and exposure of the trader in the market) (Jong and Donders (1998)). The regulatory bodies can also be benefited through efficient price discovery in the futures market (Raju and Karande (2003)). They can simulate the reforms through futures market and then directly implement the same in the cash market. The reaction of the futures market to such reforms will certainly help the regulatory bodies to evaluate the probability of success/failure of the reform in the cash market, thus they can make appropriate modifications, if necessary.

In India, equity futures are of relatively recent origin and were introduced in the phased manner. In the first phase index futures trading was introduced on 12th June, 2000 and in the second phase, stock futures trading was permitted on 9th Nov., 2001. The trade volume in both the markets has been increasing by leaps and bounds. These days significant efforts are being made to investigate the efficiency of Indian equity futures market (see Raju and Karande (2003) Gupta and Singh (2006)).

The current study is an attempt to investigate whether Indian equity futures market is efficient by studying relationship between futures market and cash/spot market in long-run and short–run. For this purpose the current study has been divided into five sections where section one introduced the problem, section two reviews the literature, section three provides data base and research methodology, section four discusses results and analysis and in section five various conclusion of the study have been drawn.

2. LITERATURE REVIEW

In India not many studies have been conducted on Price discovery role of the futures. Only a few papers are available on this subject in India. Therefore, the current study is an attempt to contribute to the price discovery literature.

At the international level, numerous papers are available that sought to study the causal relationship between futures market and the spot market, for instance, Stensis et al., (1983), Garbade & Sibler (1983), French (1986), Mohd. Fatimah et al., (1994), Hasbrouck Joel (1995), Granger et al., (1998), Booth et al., (1999), Yang Jian et al., (2001), Hall et al; (2001), Kavussanos & Nomikos (2001), Covrig & Melvin (2001), Zhong M. et al., (2004), Menkveld et al; (2003), Chuang (2003), Yan & Zivot (2004), Isabel & Gilbert (2004), So & Tse (2005). These studies investigated the role of futures market in discovering future price of the spot market in countries like US, Malaysia, Japan, Thailand, Taiwan, Germany, Australia, Amsterdam, Mexico and Hong Kong. The overall conclusion of these studies is that futures market plays the pivot role in discovering the future underlying price in spot market.

On the other hand there are some studies, namely; Turkington & Walsh (1999), Bakshi et al., (2000), Sahadevan (2002) and Barclay & Hendershott (2004) that found no evidence of price discovery in Australia, US and Indian futures market. In India not many studies have been conducted on Price discovery role of the futures. Only a few papers are available on this subject in India. Therefore, the current study is an attempt to contribute to the price discovery literature.

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3. DATA BASE AND RESEARCH METHODOLOGY

Index futures on S&P CNX Nifty started trading on National Stock Exchange (NSE) in June, 2000. For the purpose of the current study on price discovery, only Index futures on S&P CNX Nifty are considered. Daily closing prices of Index futures and S&P CNX Nifty are taken from January, 2010 till October, 2015 (i.e. 1499 No. of observations). Data are obtained from website of NSE (www.nseindia.com) for S&P CNX Nifty and Nifty Index Futures.

Unit Root Testing: When time series data are used in econometrical analysis, several preliminary statistical steps must be undertaken. These steps include unit root testing and cointegration testing. Given the nature of time-series data, it is necessary to test the stationarity of each individual series. Unit root tests provide information about stationarity of the data. Non-stationary data contains unit roots. The existence of unit roots makes hypothesis test results unreliable. Therefore, it becomes necessary to difference any non stationary time series before any econometric analysis are conducted. One way to test for the existence of unit roots, and to determine the degree of differencing necessary to induce stationarity, is to apply the Augmented Dicky-fuller (ADF) test or Phillip Perron test (PP). The results of ADF or PP determine the form in which the data should be used in any subsequent econometric analysis.

The Augmented Dickey-Fuller test specification used here is as follows:

$$\Delta \mathbf{Y_t = b_0 + \beta\, Y_{t-1} + \mu 1\, \Delta Y_{t-1} + \mu_2\, \Delta Y_{t-2} + \ldots.. + \mu_p\, \Delta Y_{t-p} + e_t} \quad \text{-------------------}\mathbf{(1)}$$

Yt represents time series to be tested, b_0 is the intercept term, β is the coefficient of interest in the unit root test, μi is the parameter of the augmented lagged first difference of Yt to represent the pth order autoregressive process, and e_t is the white noise error term.

Johansen's Cointegration testing: To check long –run relationship between variables Johansen's Cointegration testing is employed. Co-integration analyses provide important information about the long-run relationship among any group of time series data whose degree of integration is the same. Consequently, cointegration tests can determine whether there exists a stable long-run relationship between Nifty Index futures and Nifty Index in India. Johansen's cointegration test procedure presumes that financial time series (which are expected to converge in long-run) should individually be non-stationary at levels but their residual error must be stationary (Rachev et al., (2007)). Therefore, finding stationary futures and cash price series stationary at first log difference (non stationary at levels) conforms to the presumptions of cointegration test procedure. Thus, two main latent variables for this study are Nifty and Nifty futures return series. The daily returns for both series are continuous rates of return, computed as log of ratio of present day's price to previous day's price **(i.e.** $\mathbf{R_t = \ln (P_t / P_{t-1})}$**)**.

In section III of paper, both Nifty futures and Nifty index returns have been found stationary, however, price series of both markets were non-stationary at levels. These empirical findings can be inferred as both markets may be integrated of some order i.e. stable long-run relationship and strong comovement between both markets may exist, consequently, price convergence on maturity date will take place.

Presence of long run relationship implies that if both the price series contribute to same nature of information the there may exist causality relationship between these two. For this purpose, Vector Error Correction Model has been applied which reveals about price discovery efficiency and lead-lag relationship between variables in short-run.

Vector Error Correction Model (VECM): According to Engle & Granger (1987), the VECM can be specified as follows for any two pairs of test variables, such as Nifty Index futures and Nifty Index:

$R_{f,t} = \alpha_{0f} + + \beta_{1f} R_{f,t-1} + \beta_{2f} R_{s,t-1} + \varepsilon_{ft}$ ………………..(2)
$R_{s,t} = \alpha_{0s} + + \beta_{1s} R_{s,t-1} + \beta_{2s} R_{f,t-1} + \varepsilon_{st}$ ……..………..(3)

The focus of the vector error correction analysis is on the lagged terms. These lagged terms are the residuals from the previously estimated cointegration equations. In the present case the residuals from two lag specifications of the cointegration equations were used in the vector error correction estimates. Lagged terms provide an explanation of the short-run deviations from the long-run equilibrium for the two test equations. Lagging these terms means that the disturbance of last period will impact the current time period. Statistical significance tests are conducted on each of the lagged terms in equation (2) and (3). In general, finding a statistically insignificant coefficient of the term implies that the system under investigation is in the short-run equilibrium as there are no disturbances present. If the coefficient of the term is found to be **statistically significant**, then the system is in the state of the **short-run disequilibrium**. In such a case the sign of the term gives an indication of the causality direction between the two test variables.

4. RESULTS AND ANALYSIS

This paper begins the empirical analysis by first investigating the descriptive statistics of return series of Nifty and Nifty futures to check normality of series. Table 1 provides the sample descriptive statistics, which provides important information regarding the behavior of Indian cash and futures market.

Prior to discussing the lead-lag relationship between the futures and cash markets, table 1 discusses the descriptive statistics of the Indian cash as well as the futures market. The results of table 1 clearly show that the futures and cash market returns are asymmetric and highly volatile. Asymmetry in the cash market and futures market returns is not a new phenomenon. Risk averse nature of the traders in the market may be the prominent cause for the asymmetric returns (Moolman (2004)). Significance of the Jarque-Bera (JB) test statistics does not only imply that the returns are asymmetric, but it also means that the returns are not normally distributed, which is the precondition for any market to be efficient in the weak form (Fama (1965), Stevenson and Bear (1970), Reddy (1997) and Kamath (1998).

Table1: Descriptive Statistics

	NIFTY	NIFTY FUTURES
Mean	0.000299	0.000300
Median	0.000434	0.000461
Maximum	0.037380	0.038107
Minimum	-0.060973	-0.062083
Std. Dev.	0.010662	0.011002
Skewness	-0.195602	-0.183900
Kurtosis	4.435410	4.436835
Jarque-Bera	133.5444	132.7196
Probability	0.000000	0.000000

Also, the presence of unit root has been checked by using the Augmented Dickey Fuller (ADF) test and if the presence of unit root is confirmed then detrending or differencing of the series is required to make the data stationary. Results of ADF test for Nifty and Nifty Futures return series (are reported in table 2 and table 3 respectively.

Table 2: Unit Root Test for Nifty

Null Hypothesis: NIFTY has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=23)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-35.60021	0.0000
Test critical values:	1% level	-3.434661	
	5% level	-2.863331	
	10% level	-2.567772	

*MacKinnon (1996) one-sided p-values.

Table 3: Unit Root Test for Nifty Futures

Null Hypothesis: NIFTY_FUTURES has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=23)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-36.91014	0.0000
Test critical values:	1% level	-3.434661	
	5% level	-2.863331	
	10% level	-2.567772	

*MacKinnon (1996) one-sided p-values.

The results show that the ADF statistic is -35.60021 for Nifty and -36.91014 for Nifty futures series. The ADF values for Nifty and Nifty futures series are less than MacKinnon (1996) critical values for rejection of hypothesis of a unit root at 1%, 5% and 10% level of significance. This proves that the Nifty and Nifty futures return series are stationary in nature at levels[1]. Hence, the level form of returns (first log difference form of price series) will be used for further estimation throughout the analysis.

Long-Run Dynamics Between Futures and Cash Markets

Comovement of two series is one of the pre-condition for the relatively speedier price discovery in one market. Comovement of futures and cash market price series implies that long run relationship exists between both the markets. Johansens cointegration has been applied and table no. 4 discusses the cointegration results.

[1] Finding stationary futures and cash price series stationary at first log difference (non stationary at levels) conforms to the presumptions of cointegration test procedure.

Table 4: Johansen Cointegration Test Results

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.272081	722.3609	15.49471	0.0001
At most 1	0.167258	264.1146	3.841466	0.3450

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.272081	458.2463	14.26460	0.0001
At most 1	0.167258	264.1146	3.841466	0.6530

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Cointegration test results indicate that there exists long run relationship between two series. In other words, any change in one variable may have impact on other in long run. The conclusion must therefore be that spot and futures prices are cointegrated and there is a long-run relationship between the price series. Hence, price convergence on contract expiry date will definitely take place. In other words, spot and futures prices share common long-run information. The results are consistent with the results of (Gupta and Singh, 2006; Pradhan andBhat, 2009). Therefore, it can be concluded in this section that Indian equity futures and cash markets are in equilibrium during long-run, which implies that arbitrage mechanism in the Indian capital market may be efficient.

Short-Run Dynamics Between Futures and Cash Markets

Existence of cointegration relationship between Indian equity futures and cash markets suggest that both markets share same information set, thus, law of one price may hold in the long-run, which implies that there is no lead-lag relationship between two markets during long-run (Hasbrouck (1995)). However, Stoll and Whaley (1990) observed that presence of market frictions such as, infrequent trading of the underlying asset, significant difference in transaction cost of asset traded in futures and cash markets, short sale restrictions, etc. may be potential factors, which causes short-run deviations between two prices. Kim et al., (1999) further mentioned that due to significantly lower transaction cost in futures market, traders prefer to take early positions in the futures market and hedge their risk exposure in the cash market.

Interpreting the existence of cointegration as a long-run equilibrium, the evidence of cointegration allows for using Vector Error Correction Modeling (VECM) of the data to formulate the dynamics of the system in the short-run.

VECM provides important information on the short-run relationship between any two integrated variables, such as Nifty Index futures and Nifty Index. In general, it gives information on the state of the short-run equilibrium. In other words, vector error correction estimation determines whether the system under consideration is in equilibrium or whether disequilibrium exists. Engle & Granger (1987), suggest that error correction models can determine if a part of the disequilibrium from one estimation period is corrected in the following period. Consequently, finding the evidence of the disequilibrium within the vector error correction testing framework, it provides an important indication of the direction and size of the short-run causality relationship between the two test variables. Therefore, vector error correction test results can provide empirical evidence on the short-run causality between Nifty Index futures and Nifty Index. Estimation result of VECM is summarized in Table 5.

Table 5: Vector Error Correction Estimates

Vector Error Correction Estimates
Date: 11/19/14 Time: 17:55
Sample (adjusted): 4 1448
Included observations: 1445 after adjustments
Standard errors in ( ) & t-statistics in [ ]

Error Correction:	D(NIFTY)	D(NIFTY_FUTURES)
CointEq1	-1.760507	-0.161527
	(0.44156)	(0.45835)
	[-3.98700]	[-0.35241]
D(NIFTY(-1))	0.439480	0.184629
	(0.33557)	(0.34833)
	[1.30967]	[0.53005]
D(NIFTY(-2))	-0.005410	-0.104277
	(0.19883)	(0.20639)
	[-0.02721]	[-0.50524]
D(NIFTY_FUTURES(-1))	-1.035052	-0.816779
	(0.33137)	(0.34397)
	[-3.12353]	[-2.37454]
D(NIFTY_FUTURES(-2))	-0.289084	-0.213134
	(0.19529)	(0.20272)
	[-1.48027]	[-1.05138]
C	-8.85E-06	-6.19E-06
	(0.00032)	(0.00034)
	[-0.02733]	[-0.01844]

The VECM result reveals that there is unilateral causality from Nifty futures to Nifty index because coefficient of lagged value of Nifty Futures is significant. Futher, significant error correction terms in Nifty equation suggest that it depends upon Nifty index (Cash market) to correct on the maturity date so that price convergence may take place. In other words, when the price relationship deviates away from the long-run equilibrium, it will depend upon cash market to make all the adjustments, and return it back to equilibrium. Therefore, Indian futures market plays more important role in price discovery and causes price fluctuations in cash market. In other words, futures market is leading and information is disseminating from this market to cash market. Findings of ECM are consistent with Mukherjee and Mishra (2006) and Thomas (2006) but are contrary to Thenmozhi (2002) who found that Indian futures market is an efficient price discovery vehicle

5. CONCLUSION

The study of relationship between futures and cash markets during both long-run as well as short-run is of paramount interest to academicians, practitioners, and regulators for a variety of reasons. Firstly, the issue is linked to market efficiency and arbitrage. Secondly, it is believed that futures market potentially plays an important role of price discovery vehicle. If so, then futures prices should contain useful information about the subsequent spot prices, beyond that, which have already embedded in the current spot price

Johanson's cointegration model indicates the presence of long-run relationship between the two markets and therefore justify the use of VECM (Vector Error Correction Model). VECM depicts that the causality running from the Nifty Futures Index to Nifty Index and it will depend upon cash market to make all the adjustments, and return it back to equilibrium. These findings suggest that Indian equity futures market is an efficient price discovery vehicle and it depends upon the Indian futures market to discount the risk content of new information set and price the value of risk in Spot/Cash Market.

The lower costs of transacting in the futures market may be the reason that futures markets seem to be informationally more efficient than their corresponding spot market while a short position in futures contracts may be entered into as easily as a long position, the same may not be necessarily true for the spot market. Moreover, futures market provides flexibility to investors in the sense that they enable investors to speculate on the price movements of the underlying asset without the financial burden of owning the asset themselves.

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A STUDY OF SBI MERGERS

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ABSTRACT

India is a developing economy and making efforts to be amongst the top three economies of the world. This is possible only if we have sound financial systems to take care of, not only related to a particular sector but to satisfy the changing needs of the customers. India has a wide network of financial system consisting of Formal (Organised) Financial System which includes the Regulators, Financial Institutions, Financial Markets, Financial Instruments and Financial Services and the Informal (Unorganised) Financial System consists of Moneylenders, Traders, Landlords, and Pawn Brokers etc.

The Literature Review has been conducted to find out what other research scholars have studied about Mergers.The authors try to study the need for bank mergers, takes look at the past mergers of the Indian Banks from 1961 to 2014, and they also try to take a look at the brief history of SBI & Associate Banks of SBI. They further tried to study the past mergers of selected Private Sector and Public Sector Banks and performance of few merged banks and have done its analysis and interpretation. The authors have made a special study of past mergers of the SBH, SBI and SBI Group including Associate Banks of SBI and done its analysis and interpretations. A Study is also done of select parameter wise position of selected banks related to its progress from April 2008 to March 2013 and Analysis of Increase/Decrease during that period.

The authors arrive to the conclusion that the latest phase of banking in India has seen less mergers as compared to the first and second phase, but the recent decision of the GoI to merge the associate banks of SBI with SBI is said to be the landmark in the history of banking and also the merger of other Public Sector Banks into Six Banks will make the banks more strong and competitive and will be able to compete with strong global players. However, there is a need for the Government to take a look at merging of Old Private Sector Banks and New Private Sector Banks into 4 to 5 Banks and streamline the dual regulation of Co-operative Banks and to merge them too into another 2 to 3 Banks which are strong in each State, because the authors have observed from the study of selected banks performance that mergers do help the banks to perform well. Lastly, the authors are of the view that even though Mergers disrupts business, it helps in transforming markets.

KEYWORDS

Bank, BOB, HDFC, ICICI, Mergers, OBC, Performance, SBI)

1. INTRODUCTION

Banking in India has its origin in Vedic times, i.e. 2000 to 1400 BC. Indigenous bankers and money lenders have played a vital role for centuries. [1] In India, both small and big, strong and weak, rural and urban, public and private, banks coexist. The distribution of banks in terms of profitability is skewed. Some banks earn high returns but are operating inefficiently and some banks are competing fiercely for a small segment of the market. Private sector banks have already put in place the latest technology while some public sector banks are still struggling to maintain their capital adequacy and other requirements. Hence, there was a need to restructure the banking industry. Moreover, reforms have ushered in new changes and new competition which has forced banks to improve their competitiveness. Restructuring and consolidation is one of the major routes through which the Indian banking system could bring in competitiveness.

Globally, bank mergers have increased for improving the structure and efficiency of the banking industry. A well planned merger can be a boon as it reduces the cost of operation, expands the business profile, enhances growth, increases the capital base, which, in turn, increases the risk ability of the bank. Mergers have gained importance on account of globalization, increasing competition, technology changes and redefinition of takeovers. The Narasimhan Committee on Reforms in Banking Sector (1998) recommended formation of three to four large banks with an international presence, eight to ten banks with a national presence, local banks with a regional presence, and presence of rural banks. The committee suggested mergers among strong banks, both in public and private sectors and even with financial institutions and non-banking finance companies (NBFCs).[1] In order to attain the economies of scale and also to combat the unhealthy competition consolidation of Indian banking sector through M&A's on commercial considerations and business strategies are the essential pre-requisite.

The history of Indian banking can be divided into three main phases:
Phase I (1786- 1969) - Initial phase of banking in India when many small banks were set up
Phase II (1969- 1991) - Nationalisation, regularisation and growth
Phase III (1991 onwards) - Liberalisation and its aftermath

1.1 Definition of Merger

A merger is combination of two or more companies into a single company where one survives and the others lose their corporate existence. The survivor acquires all the assets as well as liabilities of the merged company or companies. The surviving company is the buyer, which retains its identity, and the extinguished company is the seller. [2] A merger is a transaction that result in the transfer of ownership and control of a corporation. The two companies come together to become one. A merger occurs between companies producing similar products, goods and offering similar services for common goals.

2. LITERATURE REVIEW

A large number of studies examined various aspects of M&A in the Indian banking system. Many important books and research articles have been published. In this section of the chapter an attempt has been made to review some of the books and articles, existing literature dealing with the various aspects of bank consolidation.

2.1 Goyal K.A. & Joshi Vijay (2011) in their paper, gave an overview on Indian Banking Industry & highlighted the changes occurred in the banking sector after post liberalisation. Their study examined the need for M&A in Indian banking. It also gave the idea of changes that occurred after M&A in the Indian banking sector in terms of financial, human resources and legal aspects. It also described the benefits that come out of M & A & examined that M&A is a strategic tool for expanding their horizon for companies like the ICICI Bank. The bank has used merger as their expansion strategy in rural market to improve customer base and market share. The sample of 17 mergers of post liberalisation period was taken. **[3]**

2.2 Manoj Anand and Jagandeep Singh (2008) had analyzed five mergers in the Indian banking sector to understand the shareholder wealth effects of bank mergers. These are mergers of the Times Bank with the HDFC Bank, the Bank of Madura with the ICICI Bank, the ICICI Ltd. with the ICICI Bank, the Global Trust Bank with the Oriental Bank of Commerce, and the Bank of Punjab with the Centurion Bank. Using the single-factor model, their study finds that the average cumulative abnormal return (CAR) of the bidder banks is positive and substantial, thus signifying that the bidder banks got significant positive abnormal returns. The two-factor model results revealed that the merger announcement in the Indian private sector banks generated positive and statistically significant returns to the shareholders of the bidder banks**.[4]**

3. RESEARCH METHODOLOGY

It is a Descriptive Research. The present study is based on secondary data. The required information has been derived from Articles from Journals, various related web-sites which addressed the objectives of present study.

4. OBJECTIVE OF THE STUDY

The objective of the research is to:

i) To Study the Need for Bank Mergers.
ii) To take a look at the Past Mergers of the Indian Banks from 1961 to 2014.
iii) To Study the Past Mergers of select Private Sector and Public Sector Banks and Performance of few merged banks, i.e., ICICI Bank Ltd., HDFC Bank Ltd., BOB and OBC, and its analysis and interpretation.
iv) To take a look at the brief history of SBI & Associate Banks of SBI.
v) To Study **Past** Mergers of SBH, SBI, SBI Group including Associate Banks of SBI, its Analysis &Interpretations
vi) To Study select parameter wise position of selected banks related to its progress from April 2008 to March 2013 and Analysis of percentage Increase/Decrease during that Period.
vii) To look at the latest developments regarding Merger of SBI & its Associate Banks**.**
viii) To Study the Challenges, and Favourable and Adverse Effects of Bank Mergers.
ix) To Study the Advantages and Disadvantages of SBI Mergers.

5. MERGERS OF INDIAN BANKS

5.1 Need for Bank Merger

1) Mergers of Weak Banks: Since, 1961 there existed a practice of merging the weak banks with strong banks in order to maintain financial stability to the weak banks and to avoid inconvenience and loss to the customers of the target.
2) Increase market competition: Merging gives scope for Innovation of new financial products and consolidation of regional financial system. Due to development and competitiveness of the market the market share of all banks reduced which gave a new beginning for mergers and acquisitions of banks and other entities. Thus, the customer base and rural reach was increased, leading to increase in market share.
3) Economies of scale: When the banks/entities are merged it helps to generate capability of economies of scale.
4) Talent & Skills: A merger helps to transfer skill between the two organisations and it helps both the entities to improve and become more competitive than before.
5) Technology, New services and Products: Introduction of e- banking and some financial instruments / Derivatives. Removal of entry barrier opened the gate for new banks with high technology and old banks can't compete with them so they decide to merge.
6) Creating Positive Synergies: The main motive of the entities/banks merging is to create a positive effect which is more than the combined effect of the two entities working alone. Especially cost wise and revenue wise i.e. cost synergy and revenue synergy. **[5]**

5.2 Past Mergers of Indian Bank

It will be interesting to note that from 1961 to 2014 about 87 banks were merged with other banks. Maximum mergers were with SBI & its Associate Banks i.e. fifteen banks. Four banks were merged with ICICI Bank Ltd. Two banks with HDFC Bank Ltd., Four banks with Bank of Baroda and Three with Oriental Bank of Commerce. The performance of the said banks is observed and analyzed for the period April 2008 to March 2013. ***[6]***

6. PERFORMANCE OF FEW MERGED BANKS, ITS ANALYSIS AND INTERPRETATIONS

6.1 ICICI Bank Ltd -

Table 1.1–Banks acquired by ICICI Bank Ltd

S.No.	TARGET BANK	ACQUIRER BANK	YEAR
1.	Bank of Madura Ltd	ICICI Bank Ltd	10.03.2001
2.	ICICI Ltd	ICICI Bank Ltd	03.05.2002
3.	Sangli Bank Ltd	ICICI Bank Ltd	19.04.2007
4.	The Bank of Rajasthan Ltd	ICICI Bank Ltd	13.08.2010

[7]

Table 1.2 – Select Parameters Performance of ICICI Bank Ltd (Rs. In Millions)

Parameters	2008-09	2009-10	2010-11	2011-12	2012-13	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec
Branches	1434	1721	2565	2786	3134	1700	118.55
Employees	51835	41068	56969	58276	62065	10230	19.74
Profit Per Employee	1.10	0.90	1.00	1.10	1.40	0.30	27.27

Deposits	2183478	2020166	2256021	2555000	2926136	742658	34.01
Advances	2183108	1812056	2163659	2537277	2902494	719386	32.95
NNPAs	2.09	2.12	1.11	0.73	0.77	(-) 1.32	(-) 63.16
CRAR	15.53	19.41	19.54	18.52	18.74	3.21	20.67

[7]

The last bank was merged in ICICI Bank Ltd., on 13.08.2010. It can be observed from the ***Table 1.2*** that the branches of the bank for the period April 2008 – March 2013 increased by 1700 i.e. 118.55%. The employees increased by 10230 i.e. 19.74%, Profit per employee by 0.30 million i.e. 27.27%, Deposits increased by 742658 million i.e. 34.01%, Advances by 719386 million i.e. 32.95% and Net Non-Performing Assets decreased by(-) 1.32 i.e. (-) 63.16)%, and the CRAR of the bank increased by 3.21 i.e. 20.67%.

6.2 HDFC Bank Ltd

Table 1.3 Banks acquired by HDFC Bank Ltd

S.No.	TARGET BANK	ACQUIRER BANK	YEAR
1.	Times Bank Ltd	HDFC Bank Ltd	26.02.2000
2.	Centurion Bank of Punjab Ltd	HDFC Bank Ltd	23.05.2008

[7]

Table 1.4 – Select Parameters Performance of HDFC Bank Ltd (Rs. In Millions)

Parameters	2008-09	2009-10	2010-11	2011-12	2012-13	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec
Branches	1422	1736	1999	2553	3046	1624	111.21
Employees	52687	51888	55752	66076	69401	16714	31.72
Profit Per Employee	0.42	0.60	0.74	0.80	1.00	0.58	138.10
Deposits	1428116	1674044	2085864	2467064	2962470	1534354	107.44
Advances	988830	1258306	1599827	1954200	2397206	1408376	142.43
NNPAs	0.63	0.31	0.19	0.18	0.20	(-) 0.43	(-) 68.25
CRAR	15.69	17.44	16.22	16.52	16.80	1.11	7.07

[7]

The last bank was merged in HDFC Bank Ltd., on 23.05.2008. It can be observed from the ***Table 1.4*** that **t**here was an increase of branches for the period April 2008 – March 2013 by 1624 i.e. 111.21%. The employees too increased by 16714 i.e. 31.72%, Profit per employee by 0.58 million i.e. 138.10%, Deposits increased by 1534354 million i.e. 107.44 million, Advances by 1408376 million i.e. 142.43% and Net Non-Performing Assets decreased by (-) 0.43 i.e.(-) 68.25%, and the CRAR of the bank increased by 1.11 i.e. 7.07%.

6.3 Bank of Baroda

Table 1.5 –Banks acquired by Bank of Baroda

S.No.	TARGET BANK	ACQUIRER BANK	YEAR
1.	New Citizen Bank Ltd	Bank of Baroda	29.04.1961
2.	Bareilly Corporation Bank Ltd.	Bank of Baroda	22.12.1999
3.	Benaras State Bank Ltd	Bank of Baroda	20.06.2002
4.	South Gujarat Local Area Bank Ltd	Bank of Baroda	25.06.2004

[7]

Table 1.6 – Select Parameters Performance of Bank of Baroda (Rs. In Millions)

Parameters	2008-09	2009-10	2010-11	2011-12	2012-13	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec
Branches	3006	3182	3447	3993	4377	1371	45.61
Employees	36440	38152	39385	41447	43108	6668	18.30
Profit Per Employee	0.60	0.80	1.10	1.20	1.00	0.40	66.67
Deposits	1923970	2412619	3054395	3848711	4738833	2814863	146.30
Advances	1432514	1750353	2286764	2873773	3281858	1849344	129.10
NNPAs	0.31	0.34	0.35	0.54	1.28	0.97	312.90
CRAR	14.05	14.36	14.52	14.67	13.30	(-) 0.75	(-) 5.34

[7]

The last bank was merged in Bank of Baroda on 25.06.2004. It can be observed from the ***Table 1.6*** that **t**here was an increase of branches for the period April 2008 – March 2013 by 1371 i.e. 45.61%. The employees too increased by 6668 i.e. 18.30%, Profit per employee by 0.40 million i.e. 66.67%, Deposits increased by 2814863 million i.e. 146.30 million, Advances by 1849344 million i.e. 129.10% and Net Non-Performing Assets too increased by 0.97 i.e. 312.90%, and the CRAR of the bank reduced by (-) 0.75 i.e. (-) 5.34%.

6.4 Oriental Bank of Commerce

Table 1.7 – Banks acquired by Oriental Bank of Commerce

S.No.	TARGET BANK	ACQUIRER BANK	YEAR
1.	Bari Doab Bank Ltd	Oriental Bank of Commerce	08.04.1997
2.	Punjab Co-operative Bank Ltd	Oriental Bank of Commerce	08.04.1997
3.	Global Trust Bank	Oriental Bank of Commerce	14.08.2004

[7]

Table 1.8 – Oriental Bank of Commerce (Rs. In Millions)

Parameters	2008-09	2009-10	2010-11	2011-12	2012-13	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec
Branches	1472	1580	1693	1821	2005	533	36.21
Employees	14656	15358	16964	18371	18891	4235	28.90
Profit Per Employee	0.62	0.74	0.90	0.62	0.70	0.08	12.90
Deposits	983688	1202576	1390543	1559649	1758975	775287	78.81
Advances	685004	834893	959082	1119777	1289551	604547	88.25
NNPAs	0.65	0.87	0.98	2.21	2.27	1.62	249.23
CRAR	12.98	12.54	14.23	12.69	12.04	(-) 0.94	(-) 7.24

[7]

The last bank was merged in Oriental Bank of Commerce on 14.08.2004. It can be observed from the ***Table 1.8*** that **t**here was an increase of branches for the period April 2008 – March 2013 533 i.e. 36.21%. The employees too increased by 4235 i.e. 28.90%, Profit per employee by 0.08 million i.e. 12.90%, Deposits increased by 775287 million i.e. 78.81 million, Advances by 604547 million i.e. 88.25% and Net Non-Performing Assets too increased by 1.62 i.e. 249.23% and the CRAR of the bank decreased by (-) 0.94 i.e. (-) 7.24%.

7.0 STATE BANK OF INDIA AND ASSOCIATE BANKS OF SBI

The origin of the State Bank of India goes back to the first decade of the nineteenth century with the establishment of the Bank of Calcutta in Calcutta on 2 June 1806. Three years later the bank received its charter and was re-designed as the Bank of Bengal (2 January 1809). A unique institution, it was the first joint-stock bank of British India sponsored by the Government of Bengal. The Bank of Bombay (15 April 1840) and the Bank of Madras (1 July 1843) followed the Bank of Bengal. These three banks remained at the apex of modern banking in India till their amalgamation as the Imperial Bank of India on 27 January 1921. An act was passed in Parliament in May 1955 and the State Bank of India was constituted on 1 July 1955. More than a quarter of the resources of the Indian banking system thus passed under the direct control of the State. Later, the State Bank of India (Subsidiary Banks) Act was passed in 1959, enabling the State Bank of India to take over eight former State-associated banks as its subsidiaries (later named Associates).

The State Bank of India was thus born with a new sense of social purpose. The concept of banking as mere repositories of the community's savings and lenders to creditworthy parties was soon to give way to the concept of purposeful banking sub serving the growing and diversified financial needs of planned economic development. The State Bank of India was destined to act as the pacesetter in this respect and lead the Indian banking system into the exciting field of national development. **[8]** As on 31st March 2014, the SBI has following Associate Banks:

- State Bank of Patiala (founded 1917)
- State Bank of Mysore (founded 1913)
- State Bank of Bikaner & Jaipur (founded 1963)
- State Bank of Hyderabad (founded 1941)
- State Bank of Travancore (founded 1945)

The associate banks of SBI which are already merged with SBI are:

- State Bank of Saurashtra (merged 2008)
- State Bank of Indore (merged 2010)

7.1 Past Mergers of SBI and Associate Banks of SBI, it's Analysis & Interpretations

Table 1.9 – Banks acquired by SBI &SBI Associates

S.No.	TARGET BANK	ACQUIRER BANK	YEAR
1.	Travanore Forward Bank Ltd	State Bank of Travancore	15.05.1961
2.	Bank of New India Ltd	State Bank of Travancore	17.06.1961
3.	Kottayam Orient Bank Ltd	State Bank of Travancore	17.06.1961
4.	Unity Bank Ltd	State Bank of India	20.08.1962
5.	Cochin Nayar Bank Ltd	State Bank of Travancore	08.02.1964
6.	Latin Christian Bank Ltd	State Bank of Travancore	17.08.1964
7.	Allahabad Trading & Bkg. Corp. Ltd	State Bank of India	25.08.1964
8.	Malnad Bank Ltd	State Bank of Mysore	06.10.1965
9.	Amrit Bank Ltd	State Bank of Patiala	03.02.1968
10.	Bank of Bihar Ltd	State Bank of India	08.11.1969
11.	National Bank of Lahore Ltd	State Bank of India	20.02.1970
12.	Bank of Cochin Ltd	State Bank of India	26.08.1985
13.	Kashinath Seth Bank Ltd	State Bank of India	01.01.1996
14.	State Bank of Saurashtra	State Bank of India	August 2008
15.	State Bank of Indore	State Bank of India	20.08.2010

[7]

About 15 banks were merged in SBI & its Associate Banks from 1961 to 2010.

Table 1.10 – Select Parameters Performance of State Bank of Travancore (Rs. In Millions)

Parameters	2008-09	2009-10	2010-11	2011-12	2012-13	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec
Branches	756	781	826	910	1028	272	35.98
Employees	11365	12192	11735	12597	12525	1160	10.21
Profit Per Employee	0.50	0.60	0.80	0.42	0.50	0	0
Deposits	420411	508834	581579	714698	846237	425826	101.29
Advances	326014	384613	460442	553460	674836	348822	107.00
NNPAs	0.58	0.91	0.98	1.54	1.46	0.88	151.72
CRAR	14.03	13.74	12.54	13.55	11.70	(-) 2.33	(-) 16.61

[7]

The last bank was merged in State Bank of Travancore on17.08.1964. It can be observed from the ***Table 1.10*** that **t**here was an increase of branches for the period April 2008 – March 2013 by 1160 i.e. 10.21%. The employees too increased by 1160 i.e. 10.21%, There was no change in Profit per employee, Deposits increased by 425826 million i.e. 101.29%,, Advances by 348822 million i.e. 107.00% and Net Non-Performing Assets too increased by 0.88 i.e. 151.72%, and the CRAR of the bank reduced by (-) 2.33 i.e. (-) 16.61%.

Table 1.11 – Select Parameters Performance of SBI (Rs. In Millions)

Parameters	2008-09	2009-10	2010-11	2011-12	2012-13	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec
Branches	12070	13252	14350	14902	15564	3494	28.95
Employees	205896	200299	222933	215481	228296	22400	10.88
Profit Per Employee	0.47	0.45	0.39	0.53	0.65	0.18	38.30
Deposits	7420731	8041162	9339328	10436474	12027396	4606665	62.08
Advances	5425032	6319142	7567194	8675789	10456166	5031134	92.74
NNPAs	1.79	1.72	1.63	1.82	2.10	0.37	20.67
CRAR	14.25	13.39	11.98	13.86	12.92	(-) 1.33	(-) 9.33

[7]

The last bank was merged in SBI on 20.05.2014. It can be observed from the ***Table 1.11*** that there was an increase of branches for the period April 2008 – March 2013 by 3494 i.e. 28.95%. The employees too increased by 22400 i.e. 10.88%, Profit per employee by 0.18 million i.e. 38.30%, Deposits increased by 4606665 million i.e. 62.08%, Advances by 5031134 million i.e. 92.74% and Net Non-Performing Assets too increased by 0.37 i.e. 20.67%, and the CRAR of the bank reduced by (-) 1.33 i.e. (-) 9.33%.

Table 1.12 – Select Parameters Performance of SBI& SBI Associates (Rs. In Millions)

Parameters	2008-09	2009-10	2010-11	2011-12	2012-13	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec
Banks	7	7	6	6	6	(-) 1	(-) 14.29
Branches	16938	18390	19338	20256	21301	4363	25.76
Employees	268598	266605	283375	279809	293965	25367	9.44
Profit Per Employee	0.44	0.47	0.42	0.55	0.60	0.16	36.36
Deposits	10070415	11080856	12458624	14050241	16184449	6114034	60.71
Advances	7394499	8579368	9941536	11519913	13792240	6397741	86.52
NNPAs	1.47	1.50	1.49	1.76	2.04	0.57	38.78
CRAR	13.96	13.46	12.25	13.70	12.67	(-) 1.29	(-) 9.24

[7]

The last bank was merged in SBI & its Associate was on 20.08.2010. It can be observed from the ***Table 1.12*** that **t**here was reduction of bank during the period April 2008 – March 2013 by (-) 1 i.e. (-) 1429%, there was increase in branches by 4363 i.e. 25.76%. The employees too increased by 25367 i.e. 9.44%, Profit per employee by 0.16 million i.e. 36.36%, Deposits increased by 6114034 million i.e. 60.71%, Advances by 6397741 million i.e. 86.52% and Net Non-Performing Assets too increased by 0.57 i.e. 38.78%, and the CRAR of the bank reduced by (-) 1.29 i.e. (-) 9.24%.

Banks	ICICI		HDFC		BOB		OBC		SBT		SBI		SBI & ASSOC.	
	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec	Prog Apr 08 to Mar 13	Analysis of % Incr/Dec
Branches	1700	118.55	1624	111.21	1371	45.61	533	36.21	272	35.98	3494	28.95	4363	25.76
Employees	10230	19.74	16714	31.72	6668	18.30	4235	28.90	1160	10.21	22400	10.88	25367	9.44
Profit Per Employee	0.30	27.27	0.58	138.10	0.40	66.67	0.08	12.90	0	0	0.18	38.30	0.16	36.36
Deposits	742658	34.01	1534354	107.44	2814863	146.30	775287	78.81	425826	101.29	4606665	62.08	6114034	60.71
Advances	719386	32.95	1408376	142.43	1849344	129.10	604547	88.25	348822	107.00	5031134	92.74	6397741	86.52
NNPAs	(-) 1.32	(-) 63.16	(-) 0.43	(-) 68.25	0.97	312.90	1.62	249.23	0.88	151.72	0.37	20.67	0.57	38.78
CRAR	3.21	20.67	1.11	7.07	(-) 0.75	(-) 5.34	(-) 0.94	(-) 7.24	(-) 2.33	(-) 16.61	(-) 1.33	(-) 9.33	(-) 1.29	(-) 9.24

Table 1.13 - Select Parameter wise position of selected banks

(Rs. In Millions)

[7]

7.2 Latest developments regarding Merger of SBI & its Associate Banks -

The negotiations for merging of 5 associate banks i.e. State Bank of Bikaner and Jaipur, State Bank of Hyderabad, State Bank of Mysore, State Bank of Patiala and State Bank of Travancore and Bharatiya Mahila Bank by acquiring their businesses including assets and liabilities, started in 2016. The merger of these five subsidiariesand BMB were approved by Union Cabinet on 15 June 2016.The State Bank of India and all its associate banks are identified by the same blue keyhole logo. **[9]**The board of State Bank of India approved a swap ratio for the merger of its three listed associate banks and the Bharatiya Mahila Bank. The deal involves allotting 28 shares of SBI (of Re. 1 each) for every 10 shares in State Bank of Bikaner and Jaipur (Rs.10 each) and 22 shares of SBI for every 10 shares in State Bank of Mysore and State Bank of Travancore. The other two associate banks, i.e. State Bank of Hyderabad and State Bank of Patiala, are unlisted entities which are fully owned by the SBI. For Bharatiya Mahila Bank, which is also an unlisted entity but owned by the Government, SBI fixed the swap ratio of 4.42 crore shares of SBI for every 100 crore share of BMB**. [10]** The cabinet has approved the merger of SBI and its associated banks except Bharatiya Mahila Bank on 15 Feb. 2017.

8. CHALLENGES OF BANK MERGERS

The common challenges of Bank/Entity Mergers are:

- Disrupts operational tasks
- Increase revenue
- Strategic planning
- Institution may need to adjust and take on new portfolio/business
- On boarding and training
- Failure to communicate and adequately train staff
- Employee retention
- Strategic planning

9. FAVOURABLE AND ADVERSE OF BANK MERGERS

S No	Favourable Effects	Adverse Effects
Overall Picture		
1	The size of each business entity after merger is expected to add strength to the Indian Banking System in general and Public Sector Banks in particular.	It will be difficult to precisely assess the impact of mergers in quantitative terms, at this juncture. We must know the terms of merger, before embarking on such exercise.
2	Indian Banks can slowly and gradually evolve/transform themselves into global banks.	Nevertheless, this process may take another 5 to 10 years.
3	After merger, Indian Banks can manage their liquidity – short term as well as long term – position comfortably. Thus, they will not be compelled to resort to overnight borrowings in call money market and from RBI under Liquidity Adjustment Facility (LAF) and Marginal Standing Facility (MSF).	Mergers will result in shifting/closure of many ATMs, Branches and controlling offices, as it is not prudent and economical to keep so many banks concentrated in several pockets, notably in urban and metropolitan centres. Though the closure or merger of a large number of branches will not happen all of a sudden, it is bound to happen over a period of next 5 years.
4	The number of public sector banks will come down, perhaps to 6 or 7, after the proposed consolidation of banks. This will end the unhealthy and intense competition going on even among public sector banks as of now. While professional competition in the market place is welcome, unhealthy competition leads to many unethical practices and regulatory violations as noticed at present.	Mergers will result in immediate job losses on account of large number of people taking VRS on one side and slow down or stoppage of further recruitment on the other. This will worsen the unemployment situation further and may create law and order problems and social disturbances. The plight of people taking pre-mature retirement (through VRS route or otherwise) will turn more pitiable than being envisaged.
5	Even now, public sector banks in India hold 77% market share. Therefore, the new banks, after merger, will give the private sector banks a good run for their money.	Financial inclusion plans may be affected and their deadline for their implementation may be delayed. 'Direct Benefit Transfer' (DBT) of government aid, subsidies and grants also will be affected.
6	In the global market, the Indian banks will gain greater recognition and higher rating.	The bank accounts linked to ECS and demat records are to be changed. This is a laborious, time taking and expensive exercise.
7	The volume of inter-bank transactions will come down, resulting in saving of considerable time in clearing and reconciliation of accounts.	The Head Office of the banks after merger will be situated at a far off place, may be more than thousand

		kilometers away from different branches situated at different corners of the country.
8	The burden on the central government to recapitalize the public sector banks again and again will come down substantially.	Different banks have different goals, priorities and business strategies.
9	The overall profitability of mergers is expected to improve.	This presumption may go wrong also.

[11]

10. ADVANTAGES OF SBI MERGER

- Post-merger, banking power house SBI will enter the list of Top 50 banks in the world
- There will be common treasury for pooling resources and appropriate deployment of a large skilled resource base.
- Any introduction in new technology by SBI will be uniformly available to all the customers including customers of associates and subsidiaries of the Bank.
- SBI share along with its subsidiaries will post tremendous earnings in stock exchanges. Thus it will benefit all the stake holders.
- The banking colossus would be able to match itself with the largest in the world as the asset base will reach uptoRs. 37 lakh crore (Rs.37 trillion) spreading across the length and breadth of the nation.
- There will be more than 50 crore customer who will be able to access 22,500 branches and 58,000 ATMs. **[12]**

11 DISADVANTAGES OF SBI MERGER

- Staff integration and rationalisation of branches.
- IR Issues, as several unions are against the merger.
- Unsecured technical glitches which can be a roadblock in operations.**[13]**
- Merger will affect regional flavour and end regional focus.
- The argument that size is going to determine the future of the bank in a globalised scenario is facile.
- Immediate negative impact would be from pension liability provisions (due to different employee benefit structures) and harmonisation of accounting policies for bad loans recognition.
- There are many problems to adjust top leadership in institutions and the unions.
- Mergers will result in shifting/closure of many ATMs, Branches and controlling offices, as it is not prudent and economical to keep so many banks concentrated in several pockets, notably in urban and metropolitan centres.
- Mergers will result in immediate job losses on account of large number of people taking VRS on one side and slow down or stoppage of further recruitment on the other. This will worsen the unemployment situation further and may create law and order problems and social disturbances.
- The weaknesses of the small banks may get transferred to the bigger bank also.
- New power centres will emerge in the changed environment. Mergers will result in clash of different organizational cultures. Conflicts will arise in the area of systems and processes too.
- When a big bank books huge loss or crumbles, there will be a big jolt in the entire banking industry. Its repercussions will be felt everywhere.

- Also, India right now needs more banking competition rather than more banking consolidation. In other words, it needs more banks rather than fewer banks. This does not mean that there should be a fetish about small-scale lending operations, but to know that large banks are not necessarily better banks. **[13]**

12 CONCLUSION

The Indian Banking has a deep history and has seen mergers and acquisitions since the British rule. However, history has also proved that it is difficult for some family/state owned banks to survive and compete in the long run due to lack of finance, strategies and vision. The first Phase from 1786-1969 was the initial phases of banking in India when many small banks were set up. The second Phase saw Nationalisation, Regulation and Growth and the Third Phase from 1991 onwards is the phase of Liberalisation and its aftermath. Liberalisation opened the doors for global economy and thus the Banks were not only required to compete with international players, but were required to compete among the domestic players. The banks were required to adopt to different strategies for its growth and to achieve the goals, by introducing new products to suit the requirements of the customers taste and budget. Also they required to adopt to HR Policies which will motivate the staff of the banks to keep their motivation high. The latest phase of banking in India has seen less mergers as compared to the first and second phase, but the recent decision of the GoI to merge the associate banks of SBI with SBI is said to be the landmark in the history of banking and also the merger of other Public Sector Banks into Six Banks will make the banks more strong and competitive and will be able to be strong global players. However, there is a need for the Government to take a look at merging of Old Private Sector Banks and New Private Sector Banks into 4 to 5 Banks and streamline the dual regulation of Co-operative Banks and to merge them too into another 2 to 3 Banks which are strong in each State, because we have observed from the study of selected banks performance that mergers do help the banks to perform well. However, merger is a good idea, it should be carried out with right bank for the right reasons. Underperforming shall not be the only reason for merger. The biggest challenge is of the bad loans which has plunged many public sector banks in an unprecedented crisis. Also, since mergers are about people, a huge amount of planning would be required to make the consolidation process smoother. Piecemeal consolidation will not provide a lasting solution and what is required is an integrated approach from all stakeholders including the government. Lastly, we can say that even though Mergers disrupts business, it helps in transforming markets.

13 LIMITATIONS & SCOPE FOR FUTURE STUDY

13.1 Limitations

The Limitations of the Study is that it is based only on secondary data and it studies only two select Public Sector and Private Sector Banks alongwith SBI and its Associate Banks.

13.2 Scope for Future Study

- To make a study with reference to cross country merger of banks.
- To take up a study with mergers and acquisitions of other sector entities.
- To Study the impact of merger of SBI and its Associate Banks after few years.
- To Study the feasible of merger amongst other Public Sector Banks as announced by GoI.
- To Study the possibility of mergers amongst the other Private Sector Banks and Co-operative Banks.

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AN EMPIRICAL STUDY ON IMPACT OF DEMONETIZATION ON INDIAN FINANCIAL MARKETS

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ABSTRACT

Rising bond yields and the election of Donald Trump as the US president had hit Emerging markets. At the same time, the Indian markets were affected by demonetization. In the study researchers have isolated the impact of demonetization by considering event study for Indian Capital Markets. An attempt had been made in the study to measure the impact of demonetization in India on Indices, currencies and metal commodities viz., silver and gold.

The semi strong form of market efficiency was tested by analyzing the impact of demonetization announcement on BSE Sensex, Bankex, CNX Nifty 50, Currencies, gold and silver. Abnormal returns from the market model are evaluated for statistical significance using the CAPM model and Paired t-test. The findings suggest that there is a significant difference in the market returns in pre and post demonetization announcement period on the Indices, Currencies and commodities.
Keywords: Sensex, Nifty, Gold, Silver, Bankex, Market Efficiency, Demonetization, Capital Markets, Volatilty.

1. INTRODUCTION

Rising bond yields and the election of Donald Trump as the US president had hit Emerging markets. At the same time, the Indian markets were affected by demonetization. On November 8, 2016, Modi Government announced a major change in the economic environment by demonetizing two high value currencies of Rs. 500 and Rs. 1000 denominations which ceased to be legal tender thereafter. Demonetization can be described as removal of a particular form of currency from circulation where the old currency unit may be replaced by a new currency unit.

This move by the government had two fold objectives; first to control fake currency that could be funding terror which is a national security concern, second was to embark upon the trouble of black money and corruption. There were different views in the country regarding this concept. It may sound a very welcome move by the government from a market perspective, and might have stunned the black money hoarders.

In the study researchers have isolated the impact of demonetization by considering event study for Indian Capital Markets. An attempt had been made in the study to measure the impact of demonetization in India on Indices, currencies and metal commodities viz., silver and gold for short run. The semi strong form of market efficiency was tested by analyzing the impact of demonetization announcement on BSE Sensex, Bankex, CNX Nifty 50, Currencies, gold and silver. Daily log normal returns from the market model were evaluated for statistical significance using the Paired t-test. The findings suggest that there is a significant difference in the market returns in pre and post demonetization announcement period on the Indices, Currencies and commodities. It is a forward looking instrument and depicts the expected market volatility over the next 30 days. The constant ups and downs in the financial markets are a cause of concern for most investors. Thus, the volatility index helps them to keep track of market volatility and guide them in their investment decisions.

2. REVIEW OF LITERATURE

Delgado (1993) on demonetization in Mexico opined that if the government took all old currency out of circulation in a short notice, they would not affect companies like Ford, Banamex or Pamex but they would affect the little kid with a piggy bank or the old man with a 100 old Peso bill stuck under his mattress."

Gardner (2015) in his study on demonetization of Franc in Gambia informed that the French 5-franc coin had been legal tender at a fixed rate in the British colonial Gambia since 1843, demonetized in 1922. The coins had been legal tender also since then at a rate which was slightly lower than the outside government transactions. The local rates were slightly higher. Gardner (2015) further confirmed that until World War I, this rate was close to the international rate under the gold standard and when the franc began to depreciate in 1918, a gap emerged between Gambian rate and international rate, which provoked a rapid influx of the coins. The cost of demonetization to the colonial administration was said to be more than a year's revenue, which affected the future development of the colony. Another crucial aspect of demonetization studied in this paper is arbitrage opportunities and local usage of currencies for instance, in West African and Australian colonies like Lagos and Gold Coast, owing to depreciation in silver in European markets, silver coins were imported abundantly in these colonies even though there was no proper use of silver coins. This led to huge accumulation of currencies unwantedly just to seek arbitrage opportunities by local merchants who were buying the same from European markets. This finally resulted in demonetization in West African British Colonies (Gardner, 2015).

As per Deodhar (2016), the first demonetization in India occurred in 1946 when Rs 1000 and Rs 10,000 notes were demonetized. The second demonetization in India took place in 1978 when Rs. 1000, Rs. 5000 and Rs. 10,000 were demonetized. Year 2015 was the third time demonetization occurred in India. The critical difference is in the quantum, the first and second demonetizations affected high value notes that formed a small part of notes in circulation. The author in this paper compared the denomination of note with the annual per capital GDP. Deodhar further added, "In 1960, India's per capita GDP was Rs. 400 (then currency), in 1978 per capita GDP was Rs. 1722/- whereas today it is Rs. 103,000/- (today's currency). Thus in 1960, a 1000 Rupee note was 2.5 times and in 1978 it was 0.5 times per capita GDP, considerably easy to withdraw. The second aspect is that today the 500/- and 1000/- currency notes represents 85% of physical money in circulation (Deodhar Rahul, 2016)."

Rao, et.al. (2016) suggested an expansion in deposits in the economy, increase in credit and currency creation in to support the Indian economy. Rao et. Al. (2016) further exclaimed the cash reserve ratio and statutory liquidity ratio in India is 4 per cent and 22 per cent respectively. Taking into account the CRR, as a result of the demonetization, the additional credit creation can be 25 times the amount of money deposited in the banks.

Kaur (2016) predicted that black money will shrink and interest loan for education loans, home loans and medical loans may reduce. Kaur (2016) further concluded that market will make a constructive move and overseas investor will execute their confidence in Indian Economy and stock market.

3. OBJECTIVES

1. To test the stationarity of the data.
2. To study the impact of Demonatization announcement on currenciey exchange rates, metal commodities and market indices.

4. RESEARCH METHODOLOGY

The study: The present study was an empirical study based on secondary data.
The sample: To conduct this study, the data was collected from 30 days previous to and 30 days post to the event i.e., 8th November 2016.
Tools for Data Collection: the data was secondary in nature, and collected from the websites of RBI, Sensex, Bankex, Investopedia etc.
Tools for Data Analysis: The data had been analyzed using absolute as well as log normal values of daily returns using paired t-test and ADF test, for impact study and stationarity test.

4.1 Stationarity Test

The table below (table – 1) consists of research hypotheses formulated for the study.

Table 1

Variable	Lags	ADF	Test Critical Values at Different Levels			Sig.	Null Hypothesis	Result	Outcome
			1%	5%	10%				
D(USD)	1	-7.05	-3.54	-2.91	-2.59	0.000	USD has a Unit Root	Rejected	Stationary
D(GBP)	1	-7.56	-3.54	-2.91	-2.59	0.000	GBP has a Unit Root	Rejected	Stationary
D (EURO)	1	-8.04	-3.54	-2.91	-2.59	0.000	Euro has a Unit Root	Rejected	Stationary

D(YEN)	1	-7.71	-3.54	-2.91	-2.59	0.000	Yen has a Unit Root	Rejected	Stationary
D (Gold)	1	-7.51	-3.54	-2.91	-2.59	0.000	Gold has a Unit Root	Rejected	Stationary
D(Silver)	1	-7.69	-3.54	-2.91	-2.59	0.000	Silver has a Unit Root	Rejected	Stationary
D(NIFTY)	1	-8.26	-3.54	-2.91	-2.59	0.000	NIFTY has a Unit Root	Rejected	Stationary
D(SENSEX)	1	-7.04	-3.54	-2.91	-2.59	0.000	Sensex has a Unit Root	Rejected	Stationary

4.2 Hypothesis Testing

From the above table it can be inferred that out of 16 only 6 Hypotheses were accepted. Thus the impact of demonetization was only significant for absolute value for USD, GBP, EURO, YEN, Gold and Silver. The study overlooked +/- 30 days to study the impact which was measured only for short run.

4.3 Analysis and Discussion

In the study it was found that the secondary data comprising of currency, commodity and capital market was having a unit root tested using augmented Dickey Fuller test. Hence, the series were made stationary at first lag. The researchers estimated the impact of demonetization on the key economic and financial variables using paired t-test for the absolute value changes and daily log normal returns. As, the absolute values were behaving stochastically, researchers used log normal returns to identify the significant changes as an impact of demonetization on Indian Financial Markets.

5. FINDINGS

All the data sets for financial variables were found to be stationary at first lag. The findings of this research paper have been provided in the table below (table -2).

Table 2

Null	Alternate	Paired t-statistic	Prob.	Result
There is no significant change in the pre and post absolute values of USD	There is a significant change in the pre and post absolute values of USD	-10.805	0.000	Rejected
There is no significant change in the pre and post LN Returns of USD	There is a significant change in the pre and post LN Returns of USD	0.952	0.349	Accepted
There is no significant change in the pre and post absolute values of GBP	There is a significant change in the pre and post absolute values of GBP	-2.705	0.010	Rejected
There is no significant change in the pre and post LN Returns of GBP	There is a significant change in the pre and post LN Returns of GBP	1.384	0.177	Accepted

There is no significant change in the pre and post absolute values of Euro	There is a significant change in the pre and post absolute values of Euro	8.46	0.000	Rejected
There is no significant change in the pre and post LN Returns of Euro	There is a significant change in the pre and post LN Returns of Euro	-0.176	0.862	Accepted
There is no significant change in the pre and post absolute values of YEN	There is a significant change in the pre and post absolute values of YEN	16.61	0.000	Rejected
There is no significant change in the pre and post LN Returns of YEN	There is a significant change in the pre and post LN Returns of YEN	-0.715	0.480	Accepted
There is no significant change in the pre and post absolute values of Gold	There is a significant change in the pre and post absolute values of Gold	12.31	0.000	Rejected
There is no significant change in the pre and post LN Returns of Gold	There is a significant change in the pre and post LN Returns of Gold	-1.238	0.226	Accepted
There is no significant change in the pre and post absolute values of Silver	There is a significant change in the pre and post absolute values of Silver	14.04	0.000	Rejected
There is no significant change in the pre and post LN Returns of Silver	There is a significant change in the pre and post LN Returns of Silver	-0.876	0.389	Accepted
There is no significant change in the pre and post absolute values of NIFTY	There is a significant change in the pre and post absolute values of NIFTY	-1	0.325	Accepted
There is no significant change in the pre and post LN Returns of NIFTY	There is a significant change in the pre and post LN Returns of NIFTY	-1	0.326	Accepted
There is no significant change in the pre and post absolute values of Sensex	There is a significant change in the pre and post absolute values of Sensex	-1	0.325	Accepted
There is no significant change in the pre and post LN Returns of Sensex	There is a significant change in the pre and post LN Returns of Sensex	-0.994	0.329	Accepted

6. CONCLUSION

It is inherent from the study that in the short run there is no such impact of demonetization observed for key financial variables. Thus investors can be free from the speculations over such an event. Rather they should focus more on in its impact in long run over other such macro economic variables viz., GDP, Inflation, BOP and company's results.

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NON-CURRENT ASSETS FINANCING PATTERN – GLOBAL COMPARATIVE ANALYSIS-BASED TRANSFORMATIONAL APPROACH

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ABSTRACT

The present study of non-current assets financing pattern is based on global comparative analysis of selected prominent companies from different countries from various continents. Primary objective of the present study is to analyse non-current assets financing pattern and bring-out suggestive transformation. The study is descriptive in nature. The secondary data has been collected from various authentic published sources. Further the present study used the secondary data and information and applied its own calculations and evaluations to arrive at specific findings and conclusions.

The findings and conclusion of the study reveals that non-current assets generally need to be financed using long-term equity or a combination of long-term equity and non-current liabilities but if not so then a mention and disclosure is required in the Indian context. There are many giant and prominent companies in India as well as abroad which have an amount of non-current assets more than the total amount of equity and non-current liabilities as seen in the present study. This pattern of financing non-current assets is risky in terms of short-term liquidity as the current ratio of these companies as seen in the present study is less than one indicating excess of current liabilities over current assets. But pattern of non-current assets financing as discussed in the scenario 3 of the present study which uses current liabilities to finance non-current assets combined with modern management strategies like JIT can bring positive results in terms of profitability, liquidity, activity as well as financial position of a corporate entity.

KEYWORDS: Non-current assets, Equity, Non-current liabilities, Current assets, Current Liabilities, Current ratio, Financing pattern, Profitability, Liquidity, Financial position

1. INTRODUCTION

Capital structure primarily indicates proportion of debt and equity in the total capital of a corporate entity. It also includes contribution of special class of shares and accumulated reserves and surplus. On the balance sheet of the corporate entity, there are liabilities other than equity and non-current liabilities which are specifically categorised as current liabilities and provisions. These current liabilities and provisions are primarily and generally short term in nature. This structure of liabilities of a corporate entity can be understood by analysing components of the liability side of the balance sheet as mentioned earlier.

On the other hand, structure of assets consists of capital assets, investments, current assets and fictitious assets. In totality, various liability components of the company are forming the group of sources of finance and asset components shows utilization of funds into various non-current and current assets.

A combined analysis of components of liabilities and assets which indicates analysis of sources and uses of the fund helps in analysing asset financing pattern for a particular company. In the current scenario, dynamically hybrid sources of finance are available in support of traditional sources of finance for designing asset financing pattern. These modern sources of finance also help in strategizing and managing assets and liabilities on the balance sheet as well as off balance sheet items like lease finance.

The present study has made an attempt to study asset financing pattern with a special focus on non-current assets of selected prominent companies from various countries, in order to understand relation of asset financing pattern and financial position of the company finally to bring out transformation in asset financing pattern helping companies to develop sound financial position in Indian scenario.

2. LITERATURE REVIEW

The present study is based on asset financing pattern and hence the research is closely related to asset liability management are reviewed and mentioned below.
Salvin Surjith FP and N. Sathnarayana (July 2014)[1] have studied ALM with the main objective to understand the problems involved in maintaining and managing assets and liabilities, to determine the financing pattern of assets and to analyse the correlation between assets and liabilities. The major findings were that capital turnover ratio of the bank was satisfactory but the cash ratio was not according to the standards. It was less than the standard ratio which indicates that the company should maintain more cash balance. The net profit and balance sheet was consistent which shows that the company can sustain and have its growth and expansion in future. They had also maintained satisfactory current ratio which means that they had sufficient current assets to meet their current liabilities.

Prof. (Dr.) Kanhaiya Singh (May 2013)[2] in his paper analysed the measures and strategies they took to manage the asset-liability composition and its impact on their performance in general and profitability in particular. Besides this they also compared and analysed the asset

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[1] Salvin Surjith FP and N. Sathnarayana (July 2014), A study on asset liability management at ICICI Bank, International Journal of Advance Research in Management and Social SciencesVol-3, No. 7 July 2014 New Delhi, Diva Enterprises Pvt. Ltd.
[2] Prof. (Dr.) Kanhaiya Singh (May 2013), Asset – liability management in banks: A dynamic approach, AIMA Journal of Management & Research, Volume 7, Issue 2/4, ISSN 0974-497, New Delhi, AIMA

– liability maturity gap of different banks in India to measure liquidity risk. They concluded that to fill the short term liquidity gap, banks resort to market borrowings at higher rate of interests. This reduces interest margins and profitability of banks.

Prof. P. Sheela and Ms. Tejaswini Bastray (2014)[3] have made comparison of ALM between 2 banks namely, Union Bank of India and Indian Bank. It was found out that there was a strong relationship between their fixed assets and net worth. From their current ratio analysis it was found out that both the banks had poor current ratio. This means that their liquidity position was not good and they should focus more on their liquidity position to minimize the risk.

3. OBJECTIVES OF THE STUDY

- To analyse the gap between non-current assets and non-current liabilities including equity.
- To analyse non-current asset financing pattern.
- To arrive at suggestive transformation in asset financing pattern for developing sound financial position.

4. RESEARCH METHODOLOGY

The present study is descriptive in nature and based on secondary data. The secondary data has been collected from various authentic published sources. Further the present study used the secondary data and information and applied its own calculations and evaluations to arrive at specific findings and conclusions.

4.1 Limitation of the study

The present study analyses asset financing pattern of selected prominent companies only. Prominent companies from selected countries from every continent are studies to arrive at suggestive transformation in capital structure, liabilities and asset financing in Indian context. While studying non-current assets financing pattern the present study has not considered the cash positions of the companies and their income from long-term investments in outside securities and investment areas.

4.2 Data analysis and interpretations

The present study has covered both the approaches in relation to assets and liabilities of the companies. Initially, the analysis of ability of non-current liabilities to finance non-current assets and sometimes part of current assets is done and further it is extended to understand usage of non-current liabilities including equity as well as current liabilities in financing non-current assets. Thus, for the purpose of present study these scenarios are classified into three categories as case1, which indicates total non-current assets financed by only equity, case 2, which indicates total non-current assets not only financed by equity but also to certain extent by other non-current liabilities and case 3, which indicates that equity, non-current liabilities and even part of current liabilities to some extent are required to finance non-current assets.

[3] Prof. P. Sheela and Ms. Tejaswini Bastray (2014), Effect of asset liability management on commercial banks profitability in Indian financial market- A case study of two public sector banks, International Journal of Business and Administration Research Review, Vol. 1, Issue-6, July-September 2014, Bangalore, SLAA Publications Pvt. Ltd. pp. 92-103

Scenario 1: Only Equity can finance Non Current Assets

Country	Non-current assets	Equity	Difference (non-current assets minus equity)	Equity as a % of non-current assets
RELIANCE(Rupees)	479627	246905	232722	51
TCS(Rupees)	26317	65863	(42546)	250
WALMART($)	139342	83611	44263	60
APPLE($)	214817	128249	86568	60
SASOL(Rand)	282581	212418	70163	75
MTN(Rand)	218435	151838	66597	70
VOLKSWAGEN(Euro)	236548	88270	148278	37
DAIMLER(Euro)	125319	54624	70695	44
WESFARMERS($)	31099	22949	8150	74
BHP BILLITON($)	108211	70545	37666	65

Source: Compiled from Annual Financial Statements 2015-16

Prominent companies have been selected across the various continents. Reliance and TCS were selected from Asia. Wal-mart and Apple were selected from America. Sasol and MTN were selected from Africa. Volkswagen and Daimler were selected from Europe. And finally Wesfarmers and BHP Billiton were selected from Australia. Balance Sheets of all these companies were analysed. Scenario 1 reveals that out of these many companies it's remarkable to see that only TCS is the company whose only equity can finance its non-current assets. Thus the second last column in the table above states the difference between non-current assets and equity of the company which in turn reveals that in case of all the companies except TCS from India the amount of non-current assets is more than equity whereas the final column in the above table which indicates the equity as a percentage of total non-current asset shows that in no company except TCS the amount of equity is more than 75 percent of the total non-current assets but in case of TCS the amount of equity is 250 percent of the total amount of non-current assets.

The above table shows that the dependence of companies on equity for financial non-current assets is moderately less as it can be seen in case of Volkswagen that the equity is only 37 percent of the non-current assets and Daimler the same is 44 percent. Thus, it can be seen from the selected sample companies that only one out of ten companies i.e. 10 percent have amount of equity more than the amount of non-current assets.

Scenario 2: Total Non Current Liabilities (incl. Equity) can finance Non Current Assets

Country	Non-current assets	Equity	Non-current liabilities other than equity	Total non-current liabilities (incl. equity)	Difference (Non-Current Assets minus Total Noncurrent Liabilities)	Total Non-current liabilities as a % of Non-current Assets
RELIANCE(Rupees)	479627	246905	173439	420344	59283	88
TCS(Rupees)	26317	65863	1546	67409	-41092	256
WALMART($)	139342	83611	51351	134962	4380	97

APPLE($)	214817	128249	114431	242680	-27863	113
SASOL(Rand)	282581	212418	136694	349112	-66531	124
MTN(Rand)	218435	151838	72510	224348	-5913	103
VOLKSWAGEN(Euro)	236548	88270	145175	233445	3103	99
DAIMLER(Euro)	125319	54624	85461	140085	-14766	112
WESFARMERS($)	31099	22949	7410	30359	740	98
BHP BILLITON($)	108211	70545	41182	111727	-3516	103

Source: Compiled from Annual Financial Statements 2015-16

From Scenario 2 it is clear that Apple, Sasol, MTN, Daimler and BHP Billiton are the companies, where it's seen that only equity cannot finance the non-current assets alone but total non-current liabilities including equity is financial their total non-current assets. Hence from the table it can be interpreted that for these companies as mentioned in the earlier sentence the total non-current liabilities are enough to finance non-current assets. But further it gives rise to the scenario 3 because there are companies in the above table such as Reliance, Walmart, Volkswagen, and Wesfarmers in case of which the total non-current liabilities including equity is also not enough to finance their non-current assets.

Scenario 3: Total liabilities (incl. Current liabilities) financing Non-current Assets

Country	Non-current assets	Total non-current liabilities	Current liabilities	Total liabilities	Difference (Non-current Assets minus Non-current liabilities)	Difference as a % of Current Liabilities
RELIANCE(Rupees)	479627	420344	185870	606214	59283	32
WALMART($)	139342	134962	64619	199581	4380	7
VOLKSWAGEN(Euro)	236548	233445	148489	381935	3103	2
WESFARMERS($)	31099	30359	10424	40783	740	7

Source: Compiled from Annual Financial Statements 2015-16

From Scenario 3 it is clear that Reliance, Walmart, Wesfarmers and Volkswagen are the companies who require total liabilities to finance their non-current assets. For these companies only non-current liabilities are not enough. In these companies their current liabilities are more than their current assets. They have low current ratio. Specifically as shown in the final column of the table of scenario 3 it is clear that 32 percent of Reliance, 7 percent of Walmart and Wesfarmers and 2 percent of Volkswagens current liabilities are used to finance the non-current assets of these companies.

Here is the catch of transformation in the non-current assets financing pattern of the companies as the companies mentioned in scenario 3 such as Reliance, Walmart, Wesfarmers and Volkswagen are prominent companies from their respective continents because of their market success, positive profitability, strong financial position, etc. Here it is seen that these companies are using short-term liabilities to finance their non-current assets and very often it is observed that the cost of funds acquired through such short term liabilities is lower than the cost of fund acquired through long term liabilities. Thus, the use of low cost fund is basis of transformation is non-current assets financing pattern if well managed by the companies who are adopting this strategy of financing non-current assets with due respect to the legal requirements, formalities, compliances and disclosures of various governing bodies of the respective countries. This type of arrangement of non-current asset financing pattern gives rise to the short-term liquidity issues in term of current ratio. The same is deliberated further.

Short term liquidity analysis of companies especially falling in Scenario 3

Country	Current assets	Current liabilities	Current ratio
RELIANCE(Rupees)	**126587**	**185870**	**0.68**
TCS(Rupees)	63067	21975	2.87
WALMART($)	**60239**	**64619**	**0.93**
APPLE($)	106869	79006	1.35
SASOL(Rand)	108133	41602	2.60
MTN(Rand)	95432	89519	1.07
VOLKSWAGEN(Euro)	**145387**	**148489**	**0.98**
DAIMLER(Euro)	91847	77081	1.19
WESFARMERS($)	**9684**	**10424**	**0.93**
BHP BILLITON($)	16369	12853	1.27

Source: Compiled from Annual Financial Statements 2015-16

Current Ratio is a short-term liquidity ratio which measures company's ability to pay its debt in the next 12 months or in its business cycle. Generally, a standard current ratio of 2:1 is considered to be acceptable to maintain healthy short-term liquidity. Seasonality can also affect the current ratio. If current ratio is below 1 then that indicates current liabilities exceeding the current assets in which case the company may have problems paying its short-term liabilities on time. However, low values does not indicate a critical problem but should concern the management. Current ratio gives an idea of the company's operating efficiency. A standard current ratio means "safe" liquidity, but a very high current ratio can be a warning signal that the company has problems in managing its receivables or have long inventory turnover, which indicates that the company may not be efficiently using its current assets. If these problems and issues relating to managing short-term liquidity are handled with the strategies like just-in-time (JIT), right-first-time, lean inventory, etc then the non-current asset financing pattern adopted by the companies as mentioned in scenario 3 can be one of the lead reasons behind handsome profitability and good financial positions of the corporate entities.

5. CONCLUSION

In the present study it has been seen that TCS is the only company whose equity can finance its non-current assets. Apple, Sasol, MTN, Daimler and BHP Billiton are the companies whose only equity is not sufficient to finance its non-current assets and hence it requires its total non-current liabilities. Reliance, Walmart, Volkswagen and Wesfarmers require their current liabilities too to finance its non-current assets. Such companies have low current ratio and hence such companies need to take more care in managing their assets and liabilities.

Non-current assets generally need to be financed using long-term equity or a combination of long-term equity and non-current liabilities. If not so then a mention and disclosure is required in the Indian context. There are many giant and prominent companies in India as well as abroad which have an amount of non-current assets more than the total amount of Equity and non-current liabilities as seen in the present study. This pattern of financing non-current assets combined with modern management strategies like JIT can bring positive results in terms of profitability, liquidity, activity as well as financial position of a corporate entity.

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ANALYSIS OF INITIAL PUBLIC OFFERING (IPO) RELATED EXPENSES

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ABSTRACT

Raising funds through an offer to the public is an aspirational goal of many companies. However, only a miniscule proportion of companies in India have been able realise this goal for a variety of reasons; the principal reason being the high cost of the IPO process. This paper studies a sample of 431 companies who raised funds by issuing securities by making an initial offering to the public (IPO) during the period 2004-2014. The study aimed at studying the behaviour of direct expenses of IPO to the gross proceeds from the IPO—the IPO size. We find that there is great variability in the data and that there are no economies of scale in increasing the size of the IPO. It appears that a large part of the direct expenses of IPO is fixed in nature, which works to the advantage of large IPOs at the cost of smaller IPOs.

1. INTRODUCTION

Companies go through life-cycle stages like natural organisms; they are conceived, born, grow, mature, die, and they are liquidated. A firm needs finance to move through these life-cycle stages; the mechanism of raising finance differs at every stage. Broadly, at the start-up stage and immediate growth stage, finance is obtained from angel investors and venture capital funds through private placement of securities. A major expansion, however, the company needs to appeal to the public to provide finance through initial public offerings (IPO).

An IPO is different from a private placement of shares as it signifies an offer made to the public as distinguished from an offer made to privately selected investor. In the words of (Buchanan-Dunlop & MacKinnon, 1956):

> An offer to the public signifies an offer made by an advertisement or circular to the general public or section thereof, as distinguished from an offer made privately, that is, to a select and small circle of friends, customers or connections.

Companies Act 1956 defined a public offer as:

> An offer shall be treated as public if the offer or invitation is calculated to result, directly or indirectly, in the shares or debentures becoming available for subscription by persons other than those receiving the offer or invitation[1].

Companies Act, 2013 defines public offer as:

[1] Section 67 of the Companies Act, 1956.

> Public offer includes initial public offer or further public offer of securities to the public by a company, or an offer for sale of securities to the public by an existing shareholder, through issue of a prospectus[2].

An IPO is a defining moment in the life of a company; it propels the company into another league. A company is able to raise a phenomenally large amount of capital[3], it provides opportunity to shareholders to freely sell and buy on the stock exchange, the company enjoys enhanced visibility and prestige and is able to increase its market share in the product market and attract employees and supply chain affiliates. IPOs also makes it easier for the company to offer equity-based compensation to its employees in the form of employee stock option plans (ESOPs), share appreciation rights and sweat equity. Acquiring companies through mergers and takeovers is easier for a company whose shares are traded on the stock exchange through an IPO. During the last seven years alone, companies have raised an amount of Rs. 101,828 crores through IPOs (SEBI, 2016).

Despite of several benefits of raising capital through an IPO, the reality is that a very small fraction of companies in India have made an IPO! Out of 1,088,780 active companies in India as on 31st March, 2016, only 6,796 companies have raised capital through an IPO (Government of India, Ministry of Corporate Affairs, 2016). Several reasons are proffered for this small fraction of IPOs: the public investors are very demanding—only companies who are floated by promoters having a proven track of performance are able to win the confidence of the public; the stringent regulatory environment for making IPOs and the compliances post-IPOs also dissuade many companies from making an IPO. IPOs take a long time to plan and requires the company to restructure and strengthen its governance and administration mechanisms.

2. IPO EXPENSES

One factor which inhibits a company from raising capital through an IPO is the financial expenses of the process. The total cost of an IPO may be classified in three categories: (a) IPO-readiness expenses; (b) direct costs of making an IPO; and (c) incremental costs of governance and regulatory compliances post-IPO.
IPO-readiness expenses are the cost of preparing a company to be ready for an IPO. Before embarking on an IPO, a company needs to:

- Identifying and recruiting professionals and independent directors on its board of directors;
- Strengthening the financial reporting system;
- Reviewing and improving its internal control systems and procedures;
- Reinforcing its corporate governance system;
- Instituting legal and regulatory compliance systems and procedures; and
- Raising additional finance.

The direct expenses of making an IPO include:

- Amount paid to several merchant bankers for: (a) fees for market-making arrangements; (b) due diligence; (c) drafting and filing offer documents; (d) fees for arrangement with nominated investors; (e) pre-issue compliances; and (f) post-issue compliances;
- Consultation fees for: (a) legal; (b) accounting; and (c) financial advice;

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[2] Explanation to Section 23 of the Companies Act, 2013.
[3] In October 2010, Coal India Limited raised Rs. 15,200 crores by issuing 63.16 crores equity shares to public at a price of Rs. 245 per share (ET Bureau, 2010).

- Listing application fees to stock exchanges;
- Printing and display of offer-related material online;
- Registration fees and stamp duty payable on the execution of documents
- Advertisement expenses;
- Brokerage commissions;
- Underwriting commissions;
- Road show expenses;
- Fees to registrars and transfer agents;
- Fees to stabilising agents where the company has invoked the green-shoe options;

Incremental costs of governance and regulatory compliances post-IPO include the costs of strengthening the manpower and systems in accounting, tax, legal, human resources, technology, internal audit, and investor relations departments. Specifically, the company will need to incur additional expenses on:

- On-going compliance with listing agreement with the stock exchanges;
- Maintenance of company secretarial records, statutory books and registers;
- Secretarial audit;
- Filing of various returns with the Registrar of Companies (RoC) and SEBI;
- Conduct of meetings of various committees of board of directors;
- Shareholder communications; and
- Advertisement and publicity of financial information and various notices.

The high cost of IPOs and its adverse impact on companies' ability to raise capital from the common man has received attention from the highest levels of government. The Finance Minister of India, in his Union Budget speech of 2012-13 proposed:

> Simplifying the process of issuing Initial Public Offers (IPOs), lowering their costs and helping companies reach more retail investors in small towns. To achieve this, in addition to the existing IPO process, I propose to make it mandatory for companies to issue IPOs of Rs.10 crore and above in electronic form through nationwide broker network of stock exchanges (Mukherjee, 2012).

Following up on this, the SEBI directed the stock exchanges to provide the facility of downloading the application forms from their websites and broker terminals so that investors can easily download the forms and submit the same to any registered broker at any of the 1000 locations comprising the nation-wide network of brokers (SEBI, 2012). In 2015, the SEBI issued a discussion paper inviting public comments on, among other things, measure to simply, and reduce the expenses involved in, the capital raising process (SEBI, 2015). Similar initiatives are also being taken in other South Asian countries (Sohel, 2014).

3. LITERATURE REVIEW

Most of the research on IPO-related expenses has focussed on its relation to IPO under-pricing. Using anecdotal evidence, John Ritter attempts to associate the large fees paid to underwriters to the conflict of interest as they not only receive compensation from the issuer-company but also from outside sources notably from their clients (Ritter, 2014). Beatty and Welch divide IPO-related expenses into two parts: underwriting commission and expert compensation; they find that the relation between IPO under-pricing and underwriting commission is moderated by a third variable, namely, risk factors (Beatty & Welch, 1996).

Dimovski and Brooks analysed factors affecting IPO-expenses in Australia during the period 1994-2004 and found clear economies of scale in direct costs with the size of the IPO (Dimovski & Brooks, 2007). A similar study of US REIT IPOs found economies of scale in direct costs with the size (Bairagi & Dimovski, 2012). In a survey conducted by Price-Waterhouse-Coopers found that 48 per cent of the respondents found that the actual IPO-related expenses exceeded their expectations (PricewaterhouseCoopers LLP, 2012).

SEBI has allowed small-medium enterprises (SME) to list on the SME exchange and then migrate to the 'main board'[4], however there in no record of any Indian company to have so migrated. In the UK, on the other hand, there are cases of companies listing without making an IPO and making an IPO later. A study of UK-based companies initially listing without IPO and getting listed subsequently showed that there was a reduction of expenses to an extent of around ten to 30 per cent (Derrien & Kecskes, 2007). Another study of 1852 US-based IPOs in the period 1977-87 reported that the total IPO-related direct cost was 40 per cent of the gross proceeds for large IPOs whereas it was 15 per cent for that of small issues (Aggarwal & Rivoli , 1991).

Another strand of research is comparison of underwriting compensation in different jurisdictions. A report by the City of London and the London Stock Exchange found that the underwriting fees are significantly lower in the UK, Germany and France as compared to the USA (Da Silva & Bell, 2006).

4. RESEARCH OBJECTIVE

IPO-related expenses are an important factor considered by companies while deciding whether to raise capital through the IPO process. The research objective is to quantify the amount the spent by companies on the IPO process and study the behaviour of the expenses in relation to the size of the IPO. The primary objective of research is to predict IPO-expenses based on the amount of funds the company seeks to raise from the process. Specifically, the IPO-expenses (IE) and their relation to issue size (IS) is modelled as follows:

$$E(IE|IS) = b_1 + b_2 IS + \epsilon$$

5. RESEARCH METHODOLOGY

Aspects of research methodology, including population, sampling, unit of analysis, and measurement techniques are discussed in the following paragraphs.

Population

The population consists of all active Indian companies that raised capital through IPOs process. The number of such companies is 6,796 (Government of India, Ministry of Corporate Affairs, 2016).

Sample

For the purposes of this study the we selected a sample of all companies that raised capital through IPOs process during the ten-year period from January 1, 2005 to December 31, 2014. The number of such comprises is 443; out of which 12 companies were eliminated as data relating to them was not available. Hence, the sample size of the study is 431 companies.

[4] Regulation 106T of the Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2009.

Unit of Analysis

The unit of analysis for this study is incremental costs directly attributable to issuing new equity shares in an IPO and the size of the IPO, i.e., the amount raised by the companies through IPOs.

Data

The data for the 431 sample companies was collected from the IPO-related documents files by the companies with the SEBI.

Hypothesis

Given the sample regression equation,

$$E(IE|IS) = b_1 + b_2 IS + \epsilon$$

where, IE, is the direct expenses related to IPOs and IS, is the issue size; we hypothesise that:

$$H_0: b_1 = 0 \; versus \; H_a: b_1 \neq 0$$

The hypothesis will be tested separately for each year of the sample period as the expenses are expected to increase from year to year. The hypothesis will be test at 95 per cent confidence level.

6. RESULTS AND ANALYSIS

During 2005-2014, as show in *Table 1*, the 431 sample companies raised a total amount of Rs. 167063.59 crores; and the total direct IPO-related expenses were Rs. 5590.82. The average size of an IPO was Rs. 392.88 crores and the average IPO-related expense was Rs. 12.73 crores. The range of IPO size was from a high of Rs. 15475.09 crores to a low of Rs. 2.00; the range of IPO-related expenses was from a high of Rs. 266.00 crores to a low of Rs. 0.28 crores.

During 2005-2014, as show in *Table 1*, the most IPOs were made in the calendar year 2007 when 84 companies raised capital through IPOs; the largest sum of capital was raised in 2010 when companies raised Rs. 56505.64 crores. The highest IPO-related expenses were incurred in the year 2007, when companies spent Rs. 1490.63 crores.

During 2005-2014, as show in *Table 1*, the least IPOs were made in the calendar year 2009 when 18 companies raised capital through IPOs; the lowest sum of capital was raised in 2014 when companies raised Rs. 839.45 crores. The lowest IPO-related expenses were incurred in the year 2014, when companies spent Rs. 36.14 crores.

The descriptive statistics is given in *Table 2* and year-wise descriptive statistics for issue-size and IPO-related expenses is presented in *Table 4* and *Table 5* respectively. It is notable that the data set has significant variability; the mean of issue size is Rs. 387.62 crores and a standard deviation of 1334.00. Similarly, the mean of IPO-related expenses is Rs. 12.97 crores and a standard deviation of 24.37.

The results of regression on year-wise is presented in *Table 3*. Regression is not performed on the entire data-set as the expenses are expected to increase from year to year. The regression analysis show that as trivially expected the coefficient of determination, R^2 is high for each of the years, except for year 2010 where the R^2 is mere 0.086.

Table 3 also provides results of estimation of the slope of the regression line, b_1 for each year. The yearly coefficients are uniformly low with a high of 0.066 and a low of 0.003, signifying that the variable issue size has very little explanatory power over IPO-related expenses. The null hypothesis ($H_0: b_1 = 0$) is also accepted for each of the ten years as the *p-value* is lower than 0.05.

7. CONCLUSION

Raising funds through an offer to the public is an aspirational goal of many companies. However, only a miniscule proportion of companies in India have been able realise this goal for a variety of reasons. The principal reason is the high cost of the IPO process; this is a particularly an important constraint for small companies (Modak, 2012).

This paper sought to quantify the amount of incremental costs directly attributable to issuing new equity shares in an IPO and formulate an equation for predicting the expected expenses for a given level of issue size. The data however shows a lot of variability and as such explanatory power of the independent variable, issue size, is very low and a predictive model is not possible. Counterintuitively, there are no economies of scale in IPO-related direct expenses as the size of the IPO increases.

The absence of economies of scale in IPO-related direct expenses is also at variance with the results in US and Canadian context referred above. However, it may have to noted that the IPO process is different in India and US. When an Indian company makes an IPO, it directly offers its securities to the public; whereas in the US-Canadian context, securities are offered to the public by the underwriter.

A possible reason for absence of economies of scale in IPO-related direct expenses is that the major component of expense, namely the fee charged by the merchant banks is a flat fee which does not depend entirely on the size of the issue. This flat fees, a fixed cost, is particularly onerous to small company; a fact conceded by investment bankers (Modak, 2015). The conclusion we draw from this result is that a large part of the direct expenses of IPO is fixed in nature, which works to the advantage of large IPOs at the cost of smaller IPOs.

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Table 1: IPO Issue Size and Issue Expenses: Summary Statistics

Year	**Issues**	**Total Issue Size**	**Total Issue Expenses**	**Average Issue Size**	**Average Issue Expenses**	**Range of Issue Size**		**Range of Issue Expense**	
						Max	Min	Max	Min
		Rs. Crores							
2005	41	10139.37	370.18	247.30	9.03	3120.00	80.50	7.50	0.50
2006	60	7618.56	530.09	126.98	8.83	800.88	70.00	11.88	0.75
2007	84	34780.70	1490.63	414.06	17.75	9187.50	266.00	6.00	0.47
2008	34	17557.68	516.65	516.40	15.20	11563.20	119.05	13.73	1.00
2009	18	18830.69	498.31	1046.15	27.68	6038.55	75.99	23.84	2.02
2010	61	56505.64	1232.88	926.32	20.21	15475.09	151.36	34.78	1.63
2011	39	9850.04	485.55	252.57	12.45	3477.00	121.67	23.25	1.60
2012	26	7336.23	307.20	282.16	11.82	4172.31	109.25	4.08	0.35
2013	44	3605.23	123.19	81.94	2.80	999.86	41.86	2.00	0.30
2014	24	839.45	36.14	34.98	1.51	498.13	14.93	2.04	0.28
Grand Summary	*Total*	*Total*	*Total*	*Average*	*Average*	*Max*	*Min*	*Max*	*Min*
	431	167063.59	5590.82	392.88	12.73	15475.09	266.00	2.00	0.28

Source: Data compiled by the author from IPO-related document filed by the companies with SEBI

Table 2: Descriptive Statistics for the Period 2005-2014

Statistics	*Issue Size*	*IPO-Related Expenses*
Mean	387.62	12.97
Standard Error	64.26	1.17
Median	65.60	5.12
Mode	60.00	0.60
Standard Deviation	1334.00	24.37
Sample Variance	1779555.48	593.85
Kurtosis	62.72	37.11
Skewness	7.29	5.10
Range	15473.09	265.72
Minimum	2.00	0.28
Maximum	15475.09	266.00
Sum	167063.59	5590.82
Count	431	431

Source: Output obtained by using the Descriptive Statistics in Data Analysis Tool Pack of MS Excel

Table 3: Regression Output

	Regression Statistics		b_0				b_1			
Year	*R Square*	*Std. Error*	*Coefficient*	*Std. Error*	*t Stat*	*P-value*	*Coefficient*	*Std. Error*	*t Stat*	*P-value*
2005	0.718	8.387	3.578	1.420	2.520	0.016	0.022	0.002	9.956	0.000
2006	0.876	3.756	0.466	0.637	0.732	0.467	0.066	0.003	20.250	0.000
2007	0.925	10.255	5.496	1.183	4.644	0.000	0.030	0.001	31.809	0.000
2008	0.593	17.295	9.837	3.068	3.206	0.003	0.010	0.002	6.824	0.000
2009	0.344	20.505	18.362	5.808	3.162	0.006	0.009	0.003	2.894	0.011
2010	0.086	24.517	17.486	3.347	5.225	0.000	0.003	0.001	2.349	0.022
2011	0.971	3.628	3.585	0.634	5.657	0.000	0.035	0.001	35.061	0.000
2012	0.880	8.363	4.156	1.739	2.390	0.025	0.027	0.002	13.265	0.000
2013	0.629	4.131	0.710	0.670	1.060	0.295	0.026	0.003	8.435	0.000
2014	0.912	1.084	0.369	0.234	1.576	0.129	0.033	0.002	15.093	0.000

Source: Compiled from Output from Data Analysis Tool Pack of MS Excel by Performing Year-Wise Regression

Table 4: Descriptive Statistics of Issue Size for the Period 2005-2014

Statistic	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Mean	247.30	126.98	414.06	516.40	1046.15	926.32	252.57	282.16	81.94	34.98
Std. Error	93.55	19.40	132.05	339.50	380.72	323.58	94.14	160.30	31.41	21.43
Median	43.20	77.50	78.25	71.98	374.34	189.80	79.38	21.88	11.84	6.49
Mode	12.00	#N/A	75.00	#N/A	#N/A	45.00	60.00	#N/A	9.00	6.50
Std. Deviation	598.99	150.25	1210.24	1979.58	1615.27	2527.24	587.90	817.39	208.35	104.97
Variance	358792	22574	1464673	3918751	2609105	6386943	345623	668120	43409	11019
Kurtosis	14.40	6.62	36.34	31.96	4.53	21.57	24.96	22.72	13.93	18.19
Skewness	3.68	2.41	5.66	5.59	2.09	4.52	4.74	4.65	3.71	4.18
Range	3112.50	789.00	9181.50	11549.47	6014.71	15440.32	3453.75	4168.23	997.86	496.09
Minimum	7.50	11.88	6.00	13.73	23.84	34.78	23.25	4.08	2.00	2.04
Maximum	3120.00	800.88	9187.50	11563.20	6038.55	15475.09	3477.00	4172.31	999.86	498.13
Sum	10139.37	7618.56	34780.70	17557.68	18830.69	56505.64	9850.04	7336.23	3605.23	839.45
Count	41	60	84	34	18	61	39	26	44	24

Table 5: Descriptive Statistics of IPO-Related Expenses for the Period 2005-2014

Statistic	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Mean	9.03	8.83	17.75	15.20	27.68	20.21	12.45	11.82	2.80	1.51
Standard Error	2.43	1.37	4.06	4.58	5.79	3.26	3.35	4.64	1.01	0.73
Median	2.80	5.42	5.78	5.42	23.62	12.84	5.91	1.79	0.60	0.46
Mode	1.50	3.50	2.00	#N/A	#N/A	21.54	3.00	0.60	0.60	0.40
Standard Deviation	15.58	10.58	37.23	26.69	24.55	25.42	20.94	23.65	6.70	3.57
Sample Variance	242.89	111.93	1385.92	712.10	602.88	646.35	438.68	559.47	44.90	12.77
Kurtosis	11.35	18.44	28.12	9.26	-0.99	12.96	20.00	11.75	27.92	10.59
Skewness	3.19	3.65	4.94	3.07	0.59	3.25	4.14	3.22	4.96	3.37
Range	80.00	69.25	265.53	118.05	73.97	149.74	120.07	108.90	41.56	14.65
Minimum	0.50	0.75	0.47	1.00	2.02	1.63	1.60	0.35	0.30	0.28
Maximum	80.50	70.00	266.00	119.05	75.99	151.36	121.67	109.25	41.86	14.93
Sum	370.18	530.09	1490.63	516.65	498.31	1232.88	485.55	307.20	123.19	36.14
Count	41	60	84	34	18	61	39	26	44	24

Table 6: List of Companies Raising Capital Through IPOs during 2005-2014

Serial	Company	Issue Closure Date	Issue Size (Crores)	Issue Expenses (Crores)
2005001	JET AIRWAYS (INDIA) LIMITED	24-02-05	1899.30	80.50
2005002	EMAMI LIMITED	10-03-05	35.00	2.45
2005003	PUNJAB NATIONAL BANK LIMITED	11-03-05	3120.00	41.03
2005004	GATEWAY DISTRIPARKS LIMITED	14-03-05	151.20	6.00
2005005	JAYPRAKASH HYDRO-POWER LIMITED	29-03-05	576.00	28.80
2005006	3I INFOTECH LIMITED	04-04-05	200.00	11.30
2005007	GOKALDAS EXPORTS LIMITED	06-04-05	132.81	8.00
2005008	SAKSOFT LIMITED	07-04-05	7.50	0.60
2005009	SHRINGAR CINEMAS LIMITED	11-04-05	43.20	3.50
2005010	ALLAHABAD BANK	12-04-05	820.00	30.00
2005011	ALLSEC TECHNOLOGIES LIMITED	20-04-05	42.41	4.00
2005012	MANGALAM DRUGS AND ORGANICS LIMITED	26-04-05	14.30	1.31
2005013	CYBER MEDIA (INDIA) LIMITED	09-05-05	16.94	1.44
2005014	NANDAN EXIM LIMITED	20-05-05	12.00	0.98
2005015	SHREE GANESH FORGINGS LIMITED	24-05-05	15.00	0.90
2005016	BEEYU OVERSEAS LIMITED	03-06-05	10.00	0.50
2005017	UNIPLY INDUSTRIES LIMITED	16-06-05	12.00	1.10
2005018	MSP STEEL & POWER LIMITED	24-06-05	16.00	1.00
2005019	ERA CONSTRUCTIONS (INDIA) LIMITED	29-06-05	49.20	2.80
2005021	IL&FS INVESTSMART LIMITED	08-07-05	110.00	8.43
2005020	YASH PAPERS LIMITED	08-07-05	23.52	1.96
2005022	VIVIMED LABS LIMITED	13-07-05	17.50	1.40
2005023	SASKEN COMMUNICATION TECHNOLOGIES LIMITED	17-08-05	130.00	8.80
2005024	FCS SOFTWARE SOLUTIONS LIMITED	26-08-05	17.50	1.50
2005025	ALPS INDUSTRIES LIMITED	23-09-05	49.80	1.83
2005026	SUZLON ENERGY LIMITED	29-09-05	1496.34	47.00
2005028	PARADYNE INFOTECH LIMITED	07-10-05	13.86	0.75
2005029	SHREE RENUKA SUGARS LIMITED	14-10-05	110.00	7.20
2005031	GUJARAT INDUSTRIES POWER COMPANY LIMITED	19-10-05	275.00	9.62
2005030	KM SUGAR MILLS LIMITED	19-10-05	33.28	2.50
2005032	PBA INFRASTRUCTURE LIMITED	28-10-05	30.00	1.50
2005033	VIKASH METAL & POWER LIMITED	28-10-05	25.00	2.50
2005034	PIRAMYD RETAIL LIMITED	16-11-05	108.00	7.24
2005035	EVEREST KANTO CYLINDER LIMITED	25-11-05	90.00	7.30
2005036	ABG SHIPYARD LIMITED	26-11-05	157.25	11.70
2005037	COMPULINK SYSTEMS LIMITED	30-11-05	27.23	2.00
2005038	REPRO INDIA LIMITED	01-12-05	43.23	4.86
2005039	RADHA MADHAV CORPORATION LIMITED	16-12-05	20.00	1.50
2005040	RAMSARUP INDUSTRIES LIMITED	16-12-05	30.00	2.50
2005041	GINNI FILAMENTS LIMITED	23-12-05	60.00	3.87
2005042	KERNEX MICROSYSTEMS (INDIA) LIMITED	30-12-05	99.01	8.00
2006001	SREE SAKTHI PAPER MILLS LIMITED	21-01-06	25.00	1.05
2006002	DYNEMIC PRODUCTS LIMITED	25-01-06	15.47	0.86
2006003	ENTERTAINMENT NETWORK (INDIA) LIMITED	27-01-06	194.40	13.60
2006004	JAGRAN PRAKASHAN LIMITED	31-01-06	321.25	23.60
2006005	INOX LEISURE LIMITED	02-02-06	198.00	10.00
2006006	SUNIL HITECH ENGINEERS LIMITED	03-02-06	34.75	1.88
2006007	SAKUMA EXPORTS LIMITED	14-02-06	43.33	3.50
2006008	SOUTH INDIAN BANK LIMITED	15-02-06	150.00	7.00
2006009	INDOTECH TRANSFORMERS LIMITED	16-02-06	51.29	4.11
2006010	UNION BANK OF INDIA	21-02-06	495.00	17.40
2006011	PRATIBHA INDUSTRIES LIMITED	22-02-06	51.42	5.62
2006012	MAHINDRA & MAHINDRA FINANCIAL SERVICES LIMITED	24-02-06	400.00	24.40
2006013	NITCO TILES LIMITED	27-02-06	168.00	11.74
2006014	GALLANTT METAL LIMITED	10-03-06	37.12	1.72
2006015	MALU PAPER MILLS LIMITED	10-03-06	20.00	2.00
2006016	ROHIT FERRO-TECH LIMITED	11-03-06	50.84	2.50

2006017	SOLAR EXPLOSIVES LIMITED	13-03-06	83.60	6.25
2006018	SHIVALIK GLOBAL LIMITED	14-03-06	60.00	4.00
2006019	ADHUNIK METALIKS LIMITED	17-03-06	100.00	8.80
2006020	UTTAM SUGAR MILLS LIMITED	21-03-06	136.00	7.05
2006021	KEWAL KIRAN CLOTHING LIMITED	23-03-06	80.60	7.26
2006023	BIRLA POWER SOLUTIONS LIMITED	29-03-06	50.40	3.50
2006022	POWERSOFT GLOBAL SOLUTIONS LIMITED	29-03-06	11.88	0.75
2006024	R SYSTEMS INTERNATIONAL LIMITED	31-03-06	110.21	11.30
2006025	OPTO CIRCUITS (INDIA) LIMITED	05-04-06	108.00	7.06
2006026	EMKAY SHARE AND STOCK BROKERS LIMITED	07-04-06	75.00	3.85
2006027	KAMDHENU ISPAT LIMITED	08-04-06	32.00	1.80
2006028	LOKESH MACHINES LIMITED	13-04-06	42.00	3.00
2006029	PLETHICO PHARMACEUTICALS LIMITED	17-04-06	110.00	7.89
2006030	DS KULKARNI DEVELOPERS LIMITED	03-05-06	151.25	14.49
2006031	PATEL ENGINEERING LIMITED	09-05-06	425.00	25.00
2006032	GANGOTRI TEXTILES LIMITED	23-05-06	55.00	3.30
2006033	UNITY INFRAPROJECTS LIMITED	24-05-06	232.40	19.34
2006034	RATHI UDYOG LIMITED	25-05-06	98.00	4.70
2006035	DECCAN AVIATION LIMITED	26-05-06	363.28	20.59
2006036	ALLCARGO GLOBAL LOGISTICS LIMITED	06-06-06	140.33	10.52
2006038	GMR INFRASTRUCTURE LIMITED	04-08-06	800.88	70.00
2006037	TECH MAHINDRA LIMITED	04-08-06	465.23	23.46
2006039	KEW INDUSTRIES LIMITED	01-09-06	21.00	1.75
2006040	DEEP INDUSTRIES LIMITED	04-09-06	40.68	4.00
2006042	ACTION CONSTRUCTION EQUIPMENT LIMITED	07-09-06	59.80	5.23
2006041	ATLANTA LIMITED	07-09-06	64.50	5.12
2006043	HOV SERVICES LIMITED	07-09-06	81.00	14.28
2006044	USHER AGRO LIMITED	11-09-06	18.02	1.20
2006045	GWALIOR CHEMICAL INDUSTRIES LIMITED	14-09-06	80.00	6.00
2006046	RICHA KNITS LIMITED	19-09-06	27.00	2.25
2006047	FIEM INDUSTRIES LIMITED	27-09-06	56.17	4.80
2006048	GAYATRI PROJECTS LIMITED	29-09-06	85.55	6.85
2006049	JHS SVENDGAARD LABORATORIES LIMITED	04-10-06	38.86	4.13
2006050	ACCEL FRONTLINE LIMITED	05-10-06	42.27	6.46
2006051	DEVELOPMENT CREDIT BANK LIMITED	06-10-06	185.90	12.35
2006052	BLUE BIRD (INDIA) LIMITED	22-11-06	92.14	9.92
2006053	GULSHAN SUGARS AND CHEMICALS LIMITED	28-11-06	26.40	2.60
2006054	RUCHIRA PEPARS LIMITED	29-11-06	28.50	2.35
2006055	KOVILPATTI LAKSHMI ROLLER FLOUR MILLS LIMITED	01-12-06	14.30	1.30
2006056	TANLA SOLUTIONS LIMITED	14-12-06	420.95	27.26
2006057	PYRAMID SAIMIRA THEATRE LIMITED	18-12-06	84.44	5.00
2006058	SHREE ASHTAVINAYAK CINE VISION LIMITED	20-12-06	59.65	3.60
2006059	LUMAX AUTO TECHNOLOGIES LIMITED	21-12-06	22.59	2.50
2006060	CELEBRITY FASHIONS LIMITED	22-12-06	81.90	6.26
2007001	CAMBRIDGE TECHNOLOGY ENTERPRISES LIMITED	09-01-07	24.00	2.00
2007002	AUTOLINE INDUSTRIES LIMITED	12-01-07	75.00	5.00
2007003	GLOBAL BROADCAST NEWS LIMITED	18-01-07	105.00	7.97
2007004	YOGINDERA WORSTED LIMITED	22-01-07	14.40	1.44
2007005	TECHNOCRAFT INDUSTRIES (INDIA) LTD	23-01-07	87.36	5.69
2007006	CINEMAX INDIA LIMITED	24-01-07	138.26	8.50
2007007	REDINGTON (INDIA) LIMITED	25-01-07	149.51	10.52
2007008	FIRSTSOURCE SOLUTIONS LIMITED	02-02-07	443.52	23.12
2007009	POWER FINANCE CORPORATION LIMITED	06-02-07	997.19	32.52
2007010	NETWORK 18 FINCAP LTD	07-02-07	203.45	9.00
2007011	LAWRESHWAR POLYMERS LIMITED	08-02-07	10.00	1.21
2007012	EURO CERAMICS LIMITED	13-02-07	92.75	8.35
2007015	BROADCAST INITIATIVES LIMITED	14-02-07	102.60	6.82
2007014	INDUS FILA LIMITED	14-02-07	82.34	4.95
2007017	MINDTREE CONSULTING LIMITED	14-02-07	237.72	22.94
2007016	MUDRA LIFESTYLE LIMITED	14-02-07	76.64	9.46
2007013	ORIENTAL TRIMEX LIMITED	14-02-07	48.00	4.16
2007018	EVINIX ACCESSORIES LIMITED	15-02-07	42.00	3.61
2007019	IDEA CELLULAR LIMITED	15-02-07	2125.00	82.50
2007020	ASTRAL POLY TECHNIK LIMITED	22-02-07	34.17	3.08

2007021	JAGJANANI TEXTILES LIMITED	23-02-07	20.25	1.20
2007022	ABHISHEK MILLS LIMITED	01-03-07	41.00	3.53
2007023	GREMACH INFRASTRUCTURE EQUIPMENTS & PROJECTS LIMITED	19-03-07	59.00	5.90
2007025	ICRA LIMITED	23-03-07	85.18	5.75
2007024	VIMAL OIL & FOODS LIMITED	23-03-07	35.83	2.88
2007026	ADVANTA INDIA LIMITED	30-03-07	216.32	17.40
2007027	FORTIS HEALTHCARE LIMITED	20-04-07	496.76	44.45
2007028	HILTON METAL FORGING LIMITED	24-04-07	38.15	2.50
2007029	BINANI CEMENT LIMITED	10-05-07	153.75	11.85
2007030	INSECTICIDES (INDIA) LIMITED	11-05-07	36.92	3.69
2007032	ASAHI SONGWON COLORS LIMITED	15-05-07	33.50	2.80
2007031	GLORY POLYFILMS PRIVATE LIMITED	15-05-07	39.46	2.75
2007033	NITIN FIRE PROTECTION INDUSTRIES LIMITED	18-05-07	64.41	5.26
2007034	DECOLIGHT CERAMICS LIMITED	29-05-07	43.45	3.50
2007035	NELCAST LIMITED	08-06-07	95.27	5.80
2007036	VISHAL RETAIL LIMITED	13-06-07	110.00	5.65
2007037	DLF LIMITED	14-06-07	9187.50	266.00
2007038	ROMAN TARMAT LIMITED	19-06-07	50.75	3.08
2007039	CELESTIAL LABS LIMITED	22-06-07	30.00	2.50
2007040	SPICE COMMUNICATIONS LIMITED	27-06-07	520.31	28.44
2007041	SURYACHAKRA POWER CORPORATION LIMITED	29-06-07	68.00	6.80
2007042	BHARAT EARTH MOVERS LIMITED	03-07-07	526.75	14.50
2007043	HOUSING DEVELOPMENT AND INFRASTRUCTURE LIMITED	03-07-07	1485.00	89.90
2007044	ALLIED DIGITAL SERVICES LIMITED	05-07-07	85.93	7.18
2007045	EVERONN SYSTEMS INDIA LIMITED	11-07-07	50.00	3.81
2007046	SIMPLEX PROJECTS LIMITED	13-07-07	55.50	5.00
2007047	ALPA LABORATORIES LIMITED	17-07-07	64.60	5.32
2007048	OMNITECH INFOSOLUTIONS LTD	25-07-07	35.00	3.25
2007050	IVR PRIME URBAN DEVELOPERS LIMITED	26-07-07	778.25	37.76
2007049	REFEX REFRIGERANTS LIMITED	26-07-07	24.70	3.60
2007052	ASIAN GRANITO INDIA LIMITED	31-07-07	67.90	5.32
2007051	SEL MANUFACTURING COMPANY LIMITED	31-07-07	37.25	3.15
2007054	KPR MILL LIMITED	07-08-07	133.02	11.12
2007053	TAKE SOLUTIONS LIMITED	07-08-07	153.30	10.20
2007055	PURAVANKARA PROJECTS LIMITED	08-08-07	858.70	52.70
2007056	MAGNUM VENTURES LIMITED	30-08-07	52.92	4.97
2007057	DAGGER FORST TOOLS LIMITED	03-09-07	29.00	3.00
2007058	KAVERI SEED COMPANY LIMITED	11-09-07	68.00	5.41
2007059	DHANUS TECHNOLOGIES LIMITED	12-09-07	113.13	11.01
2007060	POWER GRID CORPORATION OF INDIA LIMITED	13-09-07	2984.45	34.57
2007062	CONSOLIDATED CONSTRUCTION CONSORTIUM LIMITED	21-09-07	188.70	15.00
2007061	KOUTONS RETAIL INDIA LIMITED	21-09-07	146.26	13.69
2007063	SUPREME INFRASTRUCTURE INDIA LIMITED	26-09-07	37.53	3.38
2007064	SAAMYA BIOTECH (INDIA) LIMITED	28-09-07	15.00	0.70
2007065	MAYTAS INFRA LIMITED	04-10-07	327.45	30.00
2007066	CIRCUIT SYSTEMS (INDIA) LIMITED	05-10-07	14.86	0.80
2007067	ALLIED COMPUTERS INTERNATIONAL (ASIA) LTD	23-10-07	6.00	0.47
2007068	RATHI BARS LIMITED	23-10-07	25.00	2.00
2007069	VARUN INDUSTRIES LIMITED	31-10-07	54.00	4.50
2007070	BARAK VALLEY CEMENTS LIMITED	01-11-07	23.77	2.53
2007071	RELIGARE ENTERPRISES LIMITED	01-11-07	140.16	13.23
2007072	EMPEE DISTILLERIES LIMITED	06-11-07	192.00	14.17
2007073	MUNDRA PORT AND SPECIAL ECONOMIC ZONE LIMITED	07-11-07	1771.00	65.00
2007074	EDELWEISS CAPITAL LIMITED	20-11-07	691.86	23.50
2007075	RENAISSANCE JEWELLERY LIMITED	21-11-07	79.86	6.49
2007076	KOLTE-PATIL DEVELOPERS LIMITED	22-11-07	275.51	25.68
2007077	KAUSHALYA INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED	23-11-07	51.00	4.98
2007078	JYOTHY LABORATORIES LIMITED	27-11-07	305.69	21.66
2007079	BURNPUR CEMENT LIMITED	03-12-07	26.28	2.00
2007080	BRIGADE ENTERPRISES LIMITED	13-12-07	648.36	35.36
2007081	CAIRN INDIA LIMITED	15-12-07	5260.80	184.80

2007082	ARIES AGRO LIMITED	19-12-07	58.50	5.49
2007083	MANAKSIA LIMITED	19-12-07	248.00	12.52
2007084	PRECISION PIPES AND PROFILES COMPANY LIMITED	20-12-07	75.00	6.38
2008001	RELIANCE POWER LIMITED	18-01-08	11563.20	119.05
2008002	J KUMAR INFRAPROJECTS LIMITED	23-01-08	71.50	5.13
2008003	CORDS CABLE INDUSTRIES LIMITED	24-01-08	41.65	4.50
2008004	KNR CONSTRUCTIONS LIMITED	29-01-08	133.87	9.09
2008005	BANG OVERSEAS LIMITED	31-01-08	72.45	4.72
2008006	SHRIRAM EPC LIMITED	01-02-08	150.00	15.73
2008008	IRB INFRASTRUCTURE DEVELOPERS LIMITED	05-02-08	944.57	101.32
2008007	TULSI EXTRUSIONS LIMITED	05-02-08	48.45	5.42
2008009	GSS AMERICA INFOTECH LIMITED	15-02-08	139.90	16.59
2008010	V-GUARD INDUSTRIES LIMITED	21-02-08	65.60	4.87
2008011	RURAL ELECTRIFICATION CORPORATION LIMITED	22-02-08	1639.26	35.80
2008012	SITA SHREE FOOD PRODUCTS LIMITED	14-03-08	31.50	2.36
2008013	TITAGARAHA WAGONS LTD	27-03-08	128.72	8.51
2008014	KIRI DYES AND CHEMICALS LIMITED	02-04-08	56.25	4.87
2008015	AISHWARYA TELECOM LIMITED	17-04-08	14.00	1.38
2008016	GOKUL REFOILS AND SOLVENT LIMITED	13-05-08	139.59	8.76
2008017	ANU’S LABORATORIES LIMITED	15-05-08	80.22	7.97
2008018	BAFNA PHARMACEUTICALS LIMITED	30-05-08	25.60	2.05
2008019	NIRAJ CEMENT STRUCTURALS LIMITED	30-05-08	61.75	2.54
2008020	AVON WEIGHING SYSTEM LIMITED	12-06-08	13.73	1.00
2008021	SEJAL ARCHITECTURAL GLASS LIMITED	12-06-08	105.73	8.03
2008022	ARCHIDPLY INDUSTRIES LIMITED	17-06-08	48.96	4.58
2008023	FIRST WINNER INDUSTRIES LIMITED	17-06-08	68.75	5.42
2008024	LOTUS EYE CARE HOSPITAL LIMITED	20-06-08	38.00	2.70
2008025	KSK ENERGY VENTURES LIMITED	25-06-08	830.66	57.27
2008026	SOMI CONVEYOR BELTINGS LIMITED	27-06-08	21.80	2.80
2008027	BIRLA COTSYN INDIA LTD	09-07-08	144.18	9.66
2008028	VISHAL INFORMATION TECHNOLOGIES LIMITED	24-07-08	41.85	3.50
2008029	NU TEK INDIA LTD	01-08-08	86.40	8.50
2008030	AUSTRAL COKE & PROJECTS LIMITED	13-08-08	142.30	7.96
2008031	RESURGERE MINES & MINERALS INDIA LTD	13-08-08	120.15	9.80
2008032	20 MICRONS LIMITED	11-09-08	23.93	3.41
2008033	CHEMCEL BIOTECH LIMITED	12-09-08	24.64	1.60
2008034	BGR ENERGY SYSTEM LIMITED	12-12-08	438.53	29.77
2009001	EDSERV SOFTSYSTEMS LIMITED	09-02-09	23.84	2.02
2009002	RISHABHDEV TECHNOCABLE LIMITED	09-06-09	29.70	4.07
2009003	EXCEL INFOWAYS LIMITED	17-07-09	48.17	4.00
2009004	ADANI POWER LIMITED	31-07-09	3016.52	64.50
2009005	NHPC LIMITED	12-08-09	6038.55	44.24
2009006	JINDAL COTEX LIMITED	01-09-09	93.40	7.91
2009007	GLOBUS SPIRITS LIMITED	02-09-09	74.50	6.62
2009008	OIL INDIA LIMITED	10-09-09	2777.25	30.81
2009009	PIPAVAV SHIPYARD LIMITED	18-09-09	498.67	52.25
2009010	EURO MULTIVISION LIMITED	24-09-09	66.00	4.83
2009011	THINKSOFT GLOBAL SERVICES LIMITED	01-10-09	45.58	4.47
2009012	INDIABULLS POWER LIMITED	15-10-09	1529.10	39.80
2009013	DEN NETWORK LIMITED	30-10-09	364.46	26.88
2009014	ASTEC LIFESCIENCES LIMITED	04-11-09	61.50	6.70
2009015	COX AND KINGS (INDIA) LIMITED	20-11-09	610.39	62.18
2009016	JSW ENERGY LIMITED	09-12-09	2700.00	75.99
2009017	GODREJ PROPERTIES LIMITED	11-12-09	468.85	40.68
2009018	DB CORP LIMITED	15-12-09	384.22	20.37
2010001	MBL INFRASTRUCTURE LIMITED	04-01-10	102.60	9.21
2010002	BIRLA SHLOKA EDUTECH LIMITED	13-01-10	34.78	3.03
2010003	INFINITE COMPUTER SOLUTIONS (INDIA) LIMITED	22-01-10	189.80	14.24
2010004	JUBILANT FOODWORKS LIMITED	28-01-10	328.72	14.76
2010005	VASCON ENGINEERS LIMITED	29-01-10	178.20	13.23
2010006	AQUA LOGISTICS LIMITED	02-02-10	150.00	12.00
2010007	EMMBI POLYARNS LIMITED	03-02-10	38.96	3.29
2010008	NTPC LIMITED	05-02-10	8478.75	14.86
2010009	D B REALTY LIMITED	10-02-10	1500.00	61.00

2010011	ARSS INFRASTRUCTURE PROJECTS LIMITED	11-02-10	103.00	8.28
2010010	SYNCOM HEALTHCARE LIMITED	11-02-10	56.25	5.47
2010012	HATHWAY CABLE AND DATACOM LIMITED	19-02-10	666.00	36.42
2010014	TEXMO PIPES AND PRODUCTS LIMITED	02-03-10	45.00	5.88
2010015	MAN INFRA CONSTRUCTION LIMITED	05-03-10	141.75	10.62
2010016	UNITED BANK OF INDIA LIMITED	10-03-10	324.98	12.84
2010017	NMDC LIMITED	18-03-10	9967.30	11.80
2010018	PERSISTENT SYSTEMS LIMITED	19-03-10	168.01	11.31
2010019	ILFS TRANSPORTATION NETWORKS LIMITED	23-03-10	700.00	29.45
2010020	DQ ENTERTAINMENT INTERNATIONAL LIMITED	25-03-10	128.16	12.90
2010021	PRADIP OVERSEAS LIMITED	31-03-10	116.60	6.22
2010022	NITESH ESTATES LIMITED	27-04-10	405.00	27.28
2010023	TARAPUR TRANSFORMERS LIMITED	28-04-10	63.75	3.00
2010024	TALWALKARS BETTER VALUE FITNESS LIMITED	04-05-10	77.44	6.87
2010025	MANDHANA INDUSTRIES LIMITED	12-05-10	107.90	10.73
2010026	STANDARD CHARTERED PLC	03-06-10	2486.35	151.36
2010027	JAYPEE INFRATECH LIMITED	09-06-10	2262.00	107.50
2010028	ASTER SILICATES LIMITED	28-06-10	53.10	5.00
2010029	PARABOLIC DRUGS LIMITED	06-07-10	200.00	12.84
2010030	HINDUSTAN MEDIA VENTURES LIMITED	20-07-10	270.00	16.16
2010031	TECHNOFAB ENGINEERING LIMITED	26-07-10	71.66	5.62
2010032	ENGINEERS INDIA LIMITED	30-07-10	959.35	7.99
2010033	SKS MICROFINANCE LIMITED	30-07-10	1628.78	64.42
2010034	BAJAJ CORP LIMITED	04-08-10	297.00	21.54
2010035	MIDFIELD INDUSTRIES LIMITED	11-08-10	59.85	5.95
2010037	GUJARAT PIPAVAV PORT LIMITED	26-08-10	500.00	24.93
2010036	PRAKASH STEELAGE LIMITED	26-08-10	68.75	4.55
2010038	GALLANT ISPAT LIMITED	20-09-10	40.50	1.63
2010039	CAREER POINT INFOSYSTEMS LIMITED	21-09-10	115.00	9.01
2010040	MICROSEC FINANCIAL SERVICES LIMITED	21-09-10	147.50	10.97
2010041	INDOSOLAR LIMITED	22-09-10	357.00	23.66
2010042	RAMKY INFRASTRUCTURE LIMITED	23-09-10	530.00	28.76
2010043	ELECTROSTEEL STEELS LIMITED	24-09-10	285.28	22.55
2010045	TECPRO SYSTEMS LIMITED	27-09-10	267.91	16.28
2010044	TIRUPATI INKS LIMITED	27-09-10	51.50	3.00
2010046	ASHOKA BUILDCON LIMITED	28-09-10	225.00	20.60
2010047	COMMERCIAL ENGINEERS & BODY BUILDERS CO LIMITED	05-10-10	172.41	12.08
2010048	VA TECH WABAG LIMITED	06-10-10	472.59	22.51
2010049	SEA TV NETWORK LIMITED	12-10-10	50.20	4.74
2010050	BS TRANSCOMM LIMITED	13-10-10	190.45	12.85
2010051	PRESTIGE ESTATES PROJECTS LIMITED	14-10-10	1200.00	55.55
2010052	OBEROI REALTY LIMITED	19-10-10	1028.61	46.56
2010053	COAL INDIA LIMITED	21-10-10	15475.09	54.98
2010054	GYSCOAL ALLOYS LIMITED	25-10-10	54.67	4.82
2010055	GRAVITA INDIA LIMITED	16-11-10	45.00	3.12
2010057	SHIPPING CORPORATION OF INDIA LIMITED	03-12-10	1164.73	23.14
2010058	RPP INFRA PROJECTS LIMITED	08-12-10	48.75	3.22
2010059	A2Z MAINTENACE 7 ENGINERIN SERVICES LTD	10-12-10	776.25	37.81
2010060	MOIL LIMITED	16-12-10	297.00	21.54
2010061	RAVI KUMAR DISTILLERIES LIMITED	20-12-10	73.60	3.50
2010062	PUNJAB AND SIND BANK	23-12-10	470.82	14.50
2010063	SHEKHAWATI POLY-YARN LIMITED	29-12-10	36.00	3.00
2011001	CLARIS LIFESCIENCES LIMITED	03-01-11	300.00	25.74
2011002	MID VALLEY ENTERTAINMENT LIMITED	18-01-11	60.00	3.25
2011003	OMKAR SPECIALITY CHEMICALS LIMITED	27-01-11	79.38	8.72
2011004	TATA STEEL LIMITED	31-01-11	3477.00	121.67
2011005	C MAHENDRA EXPORTS LIMITED	02-02-11	165.00	8.51
2011006	FINEOTEX CHEMICAL LIMITED	25-02-11	29.48	2.47
2011007	ACROPETAL TECHNOLOGIES LIMITED	08-03-11	170.00	15.00
2011008	SUDAR GARMENTS LIMITED	10-03-11	69.98	6.16
2011009	LOVABLE LINGERIE LIMITED	21-03-11	93.28	8.46
2011010	PTC INDIA FINANCIAL SERVICES LIMITED	31-03-11	433.28	15.17
2011011	SHILPI CABLE TECHNOLOGIES LIMITED	06-04-11	55.88	3.00

2011012	MUTHOOT FINANCE LIMITED	21-04-11	901.25	35.00
2011013	INNOVENTIVE INDUSTRIES LIMITED	29-04-11	217.41	15.59
2011014	FUTURE VENTURES INDIA LIMITED	06-05-11	750.00	41.53
2011015	PARAMOUNT PRINTPACKAGING LIMITED	11-05-11	45.83	5.54
2011016	VASWANI INDUSTRIES LIMITED	12-05-11	49.00	3.37
2011017	SANGHVI FORGING AND ENGINEERING LIMITED	19-05-11	36.90	3.00
2011019	ANJANEYA LIFECARE LIMITED	24-05-11	117.00	8.42
2011020	VMS INDUSTRIES LIMITED	09-06-11	25.75	1.85
2011021	TIMBOR HOME LIMITED	13-06-11	23.25	1.62
2011022	RUSHIL DECOR LIMITED	07-07-11	40.64	2.30
2011023	BIRLA PACIFIC MEDSPA LIMITED	11-07-11	65.18	6.50
2011024	READYMADE STEEL INDIA LIMITED	13-07-11	34.75	4.50
2011025	BHARATIYA GLOBAL INFOMEDIA LIMITED	22-07-11	55.10	2.77
2011026	INVENTURE GROWTH AND SECURITIES LIMITED	02-08-11	81.90	4.25
2011027	L&T FINANCE HOLDINGS LIMITED	11-08-11	1245.00	48.56
2011028	TREE HOUSE EDUCATION AND ACCESSORIES LIMITED	23-08-11	112.06	10.49
2011029	BROOKS LABORATORIES LIMITED	02-09-11	63.00	2.92
2011030	SRS LIMITED	12-09-11	203.00	13.57
2011031	TIJARIA POLYPIPES LIMITED	15-09-11	60.00	4.80
2011032	TD POWER SYSTEMS LIMITED	19-09-11	227.00	13.93
2011033	PG ELECTROPLAST LIMITED	20-09-11	120.65	9.01
2011034	PRAKASH CONSTROWELL LIMITED	03-10-11	60.00	5.91
2011036	FLEXITUFF INTERNATIONAL LIMITED	05-10-11	104.63	6.48
2011035	M&B SWITCHGEARS LIMITED	05-10-11	93.00	3.40
2011037	RDB RASAYANS LIMITED	07-10-11	35.55	3.05
2011038	ONELIFE CAPITAL ADVISORS LIMITED	13-10-11	36.85	1.60
2011039	TAKSHEEL SOLUTIONS LTD	20-10-11	82.50	5.78
2011040	INDO THAI SECURITIES LIMITED	02-11-11	29.60	1.66
2012001	BCB FINANCE LIMITED	23-02-12	8.85	0.70
2012002	MULTI COMMODITY EXCHANGE OF INDIA LIMITED	07-03-12	663.31	50.95
2012003	OLYMPIC CARDS LIMITED	26-03-12	24.75	1.77
2012005	NATIONAL BUILDINGS CONSTRUCTION CORPORATION LIMITED	03-04-12	127.20	3.86
2012006	MT EDUCARE LIMITED	04-04-12	99.00	3.67
2012007	TRIBHOVANDAS BHIMJI ZAVERI LIMITED	04-05-12	200.00	15.86
2012008	MONARCH HEALTH SERVICES LIMITED	07-05-12	12.00	0.43
2012009	SPECIALITY RESTAURANTS LIMITED	29-05-12	176.09	18.92
2012010	MAX ALERT SYSTEMS LIMITED	27-06-12	8.00	0.60
2012011	VKS PROJECTS LIMITED	16-07-12	55.00	2.50
2012012	SANGAM ADVISORS LIMITED	17-07-12	5.07	0.42
2012013	JUPITER INFOMEDIA LIMITED	20-07-12	4.08	0.55
2012014	GODREJ INDUSTRIES LIMITED	31-07-12	370.52	11.00
2012015	JOINTECA EDUCATION SOLUTIONS LIMITED	08-08-12	5.35	0.70
2012016	SRG HOUSING FINANCE LIMITED	21-08-12	7.01	0.66
2012017	COMFORT COMMOTRADE LIMITED	24-08-12	6.00	0.50
2012018	THEJO ENGINEERING LIMITED	14-09-12	19.01	1.81
2012019	ANSHU'S CLOTHING LIMITED	20-09-12	5.05	0.35
2012020	RCL RETAIL LIMITED	26-09-12	5.80	0.50
2012021	BRONZE INFRA-TECH LIMITED	25-10-12	8.56	0.56
2012022	TARA JEWELS LIMITED	29-11-12	179.50	17.45
2012023	VETO SWITCHGEARS AND CABLES LIMITED	13-12-12	25.00	2.00
2012024	CREDIT ANALYSIS AND RESEARCH LIMITED (CARE) LIMITED	17-12-12	539.98	23.60
2012025	BHARTI INFRATEL LIMITED	19-12-12	4172.31	109.25
2012026	PC JEWELLER LIMITED	20-12-12	601.29	38.00
2012027	ECO FRIENDLY FOOD PROCESSING PARK LIMITED	26-12-12	7.52	0.60
2013001	ESTEEM BIO ORGANIC FOOD PROCESSING LIMITED	16-01-13	11.25	0.70
2013003	KAVITA FABRICS LIMITED	13-02-13	5.10	0.40
2013004	SUNSTAR REALTY DEVELOPMENT LIMITED	14-02-13	10.62	0.62
2013005	V MART RETAIL LIMITED	18-02-13	94.42	7.32
2013006	CHANNEL NINE ENTERTAINMENT LIMITED	22-02-13	11.67	0.57
2013007	HPC BIOSCIENCES LIMITED	28-02-13	15.75	0.80
2013008	BOTHRA METALS AND ALLOYS LIMITED	05-03-13	12.21	0.30
2013009	LAKHOTIA POLYESTERS (INDIA) PRIVATE LIMITED	18-03-13	5.08	0.30

2013010	GCM SECURITIES LIMITED	20-03-13	12.18	0.60
2013011	ASHAPURA INTIMATES FASHION LIMITED	21-03-13	21.00	1.75
2013012	SAMRUDDHI REALTY LIMITED	01-04-13	2.60	0.60
2013013	REPCO HOME FINANCE LIMITED	02-04-13	270.10	10.86
2013014	OPAL LUXURY TIME PRODUCTS LIMITED	08-04-13	13.00	1.93
2013015	TIMKEN INDIA LIMITED	10-04-13	51.18	4.12
2013016	MAHINDRA HOLIDAYS & RESORTS INDIA LIMITED	15-04-13	105.60	3.07
2013017	THOMAS COOK (INDIA) LIMITED	08-05-13	183.93	5.60
2013018	ONESOURCE TECHMEDIA LIMITED	14-05-13	2.80	0.45
2013019	FORTIS HEALTHCARE LIMITED	16-05-13	321.94	13.51
2013021	INDIA FINSEC LIMITED	23-05-13	6.00	0.50
2013023	JUST DIAL LIMITED	31-05-13	919.14	41.86
2013024	ADANI PORTS AND SPECIAL ECONOMIC ZONE LIMITED	07-06-13	999.86	7.95
2013025	SUNDARAM CLAYTON LIMITED	12-06-13	37.62	2.50
2013026	EDYNAMICS SOLUTIONS LIMITED	24-06-13	15.60	0.70
2013028	MONEY MASTERS LEASING & FINANCE LIMITED	17-07-13	2.00	0.45
2013029	ALACRITY SECURITIES LIMITED	29-07-13	9.00	0.60
2013030	GCM COMMODITY AND DERIVATIVES LIMITED	30-07-13	7.02	0.44
2013031	VKJ INFRADEVELOPERS LIMITED	13-08-13	12.75	0.60
2013033	KUSHAL TRADELINK LIMITED	14-08-13	27.75	0.90
2013032	SILVERPOINT INFRATECH LIMITED	14-08-13	12.00	0.70
2013034	ACE TOURS WORLDWIDE LIMITED	21-08-13	7.52	0.50
2013035	TIGER LOGISTICS INDIA LIMITED	23-08-13	8.00	0.40
2013036	RJ BIOTECH LIMITED	06-09-13	5.00	0.60
2013037	SRG SECURITIES FINANCE LIMITED	24-09-13	5.02	0.52
2013038	SATKAR FINLEASE LIMITED	25-09-13	13.51	0.61
2013039	VCU DATA MANAGEMENT LIMITED	26-09-13	18.75	0.50
2013040	NEWEVER TRADE WINGS LIMITED	30-09-13	6.32	0.37
2013042	SUBH TEX (INDIA) LIMITED	07-10-13	3.50	0.50
2013043	MITCON CONSULTANCY AND ENGINEERING SERVICES LIMITED	10-10-13	25.78	1.01
2013044	AMRAPALI CAPITAL AND FINANCE SERVICES LIMITED	11-10-13	9.00	0.60
2013046	CAPTAIN POLYPLAST LIMITED	28-11-13	5.94	0.30
2013047	TENTIWAL WIRE PRODUCTS LIMITED	06-12-13	2.12	0.55
2013048	ALSTOM T&D INDIA LIMITED	17-12-13	279.55	4.95
2013049	SUYOG TELEMATICS LIMITED	18-12-13	4.53	0.53
2013051	RCI INDUSTRIES & TECHNOLOGIES LIMITED	23-12-13	11.52	0.55
2014001	CHEMTECH INDUSTRIAL VALVES LIMITED	08-01-14	7.43	0.53
2014002	AGRIMONY COMMODITIES LIMITED	29-01-14	3.02	0.37
2014003	POLYMAC THERMOFORMERS LIMITED	05-02-14	7.70	0.60
2014004	UNISHIRE URBAN INFRA LIMITED	06-02-14	6.43	0.50
2014005	SI VI SHIPPING CORPORATION LIMITED	13-02-14	6.86	0.45
2014006	SANCO INDUSTRIES LIMITED	14-02-14	4.32	0.58
2014007	BC POWER CONTROLS LIMITED	20-02-14	10.37	0.55
2014008	ENGINEERS INDIA LIMITED	21-02-14	498.13	14.93
2014009	ANISHA IMPLEX LIMITED	24-02-14	6.50	0.40
2014010	KARNIMATA COLD STORAGE LIMITED	28-02-14	3.04	0.40
2014011	SHRI KRISHNA PRASADAM LIMITED	14-03-14	2.16	0.30
2014012	OCEANAA BIOTEK INDUSTRIES LIMITED	19-03-14	2.10	0.28
2014013	WOMEN'S NEXT LOUNGERIES LIMITED	21-03-14	6.50	0.65
2014014	R&B DENIMS LIMITED	24-03-14	3.71	0.41
2014016	WONDERLA HOLIDAYS LIMITED	07-05-14	181.25	10.96
2014017	SPS FINQUEST LIMITED	08-05-14	25.08	0.35
2014018	GCM CAPITAL ADVISORS LIMITED	15-05-14	9.00	0.40
2014019	DHANUKA COMMERCIAL LIMITED	22-05-14	4.44	0.44
2014020	TARINI INTERNATIONAL LIMITED	23-05-14	16.31	0.71
2014021	BANSAL ROOFING PRODUCTS LIMITED	19-06-14	2.04	0.40
2014022	OASIS TRADELINK LIMITED	30-06-14	6.00	0.50
2014023	BHANDERI INFRACON LIMITED	14-07-14	6.48	0.35
2014024	CAREWELL INDUSTRIES LIMITED	24-07-14	4.96	0.47
2014025	VISHAL FABRICS LTD	28-07-14	15.63	0.61

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TO STUDY THE ENTREPRENEUR'S CHARACTERISTICS WHICH AFFECT THE SUCCESS OF DIGITAL ENTREPRENEURS IN INDIA

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ABSTRACT

This research study deals with the digital entrepreneurship. There are two types of digital entrepreneurship, one is that the company is dependent on Internet to run the entire business and the other one is the company is dependent on Internet for doing the part of their business. In the current situation, there are many entrepreneurs start their business in digital world, but not all succeed in their business. This research study analyses the factors which affect the success of an entrepreneur in digital entrepreneurship. In this study, I took one of my objectives that is "the entrepreneur's characteristics which affect the success of Digital entrepreneur in India". Though there are many similar studies have been done in other countries, none of such kind has been done in India. This paper focuses on this research gap.

The entrepreneur's characteristics can be judged by analysing the factors which include entrepreneur's Interpersonal skills, Practical & Business skills, & Technical skills. The success of digital entrepreneurs can be measured with their Access to capital, Management skills, Good product at competitive price, Good customer service, Position in society, & their reputation for honesty. The conclusion would be to find that there exists a relationship between entrepreneur's characteristics and the success of digital entrepreneurs in India. This study can be utilized by anyone who wants to start a business in the digital world in India.

KEYWORDS Interpersonal skills, Practical & Business skills, & Technical skills, Access to capital, Management skills, Good product at competitive price, Good customer service, Position in society & Reputation for honesty.

1. INTRODUCTION

A digital entrepreneur is the one who uses Internet as a medium to run their entire business or a part of his business. In the year 1991, there was a change in Indian economy because Indian government liberalized the economy which led to emerge many entrepreneurs. Entrepreneurship became easier than earlier times. Anyone who has little work experience, knowledge in applying technologies, better understanding of the customers need can start their business with minimal fund.

There are many entrepreneurs emerged in this digital space, but most of them are not able to sustain it in the long run. This study deals with the digital entrepreneurship, it analyses the factors which affects the success of an entrepreneur in digital entrepreneurship. There are various factors like social, economical, technical, environmental, behavioural variables of entrepreneurs can be analysed to check whether that leads to the success of digital entrepreneurs.
Entrepreneur's characteristics play a very important role in the success of their career. This study deals with their interpersonal skills, Business & Practical skills and technical skills that will lead to the success or failure of entrepreneurs. The survey questions were formed based on the research paper "Motivational and success factors of entrepreneurs: the evidence from a developing country" written by Ivan Stefanovic, Sloboda Prokic, & Ljubodrag Rankovic.

2. LITERATURE REVIEW

Elena Vasilchenko and Sussie Morrish (2003) has identified in their paper" The Role of Entrepreneurial Networks in the Exploration and Exploitation of Internationalization Opportunities by Information and Communication Technology Firms" that it is difficult even for most alert and flexible companies to move with speed in the current market without using networks. Entrepreneurial companies and SMEs need to use networks effectively to compete in the global marketplace and for internationalization.

Paull Weber and Michael Schaper (2003) concludes in their paper that there are number of successful entrepreneurs share similar characteristics, which include independence, self-confidence, capability, personality of an entrepreneur of all ages. They also conclude that two features of young entrepreneurs vary from older entrepreneurs. The young entrepreneurs have higher levels of personal fitness, and stronger levels of family support.

Per Davidsson (2005) suggests in their research paper that it is important to know the type of experience what entrepreneurs have before they start their venture. It really helps an entrepreneur to overcome the newness and small-ness in the early stages of their ventures.

Fang Zhao and Alan Colliar concluded in their paper" Digital Entrepreneurship: Research and Practice" that the social networks play a very important in digital entrepreneurship and digital technologies bring transformation in entrepreneurship. And they also conclude that structures, strategies, and performance variables are needed for digital entrepreneurs to enhance their performance.

Rosnani Jusoh, Babak Ziyae, Soaib Asimiran, & Suhaida Abd. Kadir concluded in their paper "Entrepreneur Training needs analysis: Implications on the entrepreneurial skills needed for successful entrepreneurs" that entrepreneurs need training and education to enhance their entrepreneurial existing skills that is creativity, innovation, advertising and selling. They also conclude that knowledge related to the business is an important factor for a successful venture.

3. RESEARCH HYPOTHESIS

H1 : There exists a relationship between the digital entrepreneur's interpersonal skills and the success of the digital entrepreneurs.

H2 : There exists a relationship between the digital entrepreneur's practical & business skills and the success of the digital entrepreneurs.

H3: There exists a relationship between the digital entrepreneur's technical skills and the success of the digital entrepreneurs.

Conceptual Framework

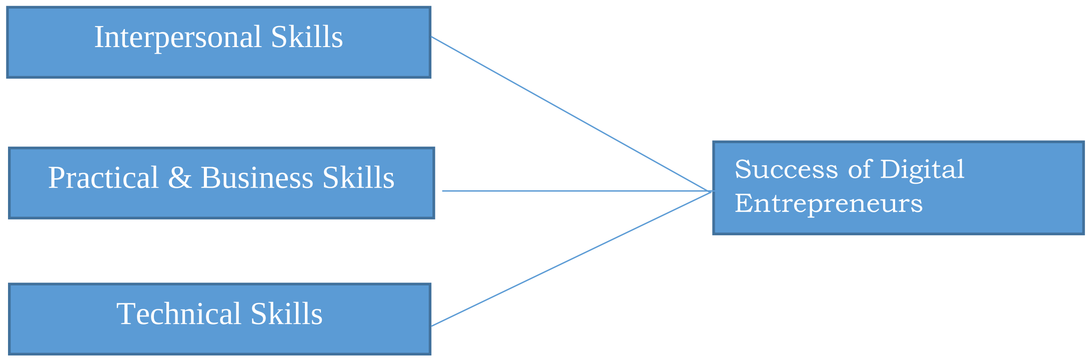

Figure 1

4. METHODOLOGY & ANALTSIS OF STATISTICAL RESULTS

This study is designed as a descriptive research study based on survey method. The scope of study is limited to few cities namely Pune, Bombay, Bangalore, Hyderabad, Ahmedabad & Noida. The digital entrepreneurs were selected based on simple random sampling method, from the list of industrial units given by Indian Government and some of them are of my own contact who are into digital entrepreneurship.

Primary and secondary data are used for this research study. Secondary data sources include, Wikipedia, books and publications related to digital entrepreneurs and digital entrepreneurship, online data sources- EBSCO and PROQUEST and E- magazines and newspapers. Primary data is collected by a structured questionnaire. The measurement scale used is Likert's 5-point scale.

Fig.1 shows this research study's conceptual framework and the relationships between the Entrepreneurial characteristics and success of entrepreneurs. The questionnaire was constructed based on the survey instruments developed by Ivan Stefanovic, Sloboda Prokic and Ljubodrag Rankovic (2010). 3 different hypothesis was constructed and tested to find that there exists a correlation between the entrepreneurial characteristics and success of entrepreneurs. The hypothesis testing was conducted on whether there exists a relationship between Interpersonal skills and success of digital entrepreneurs, whether there exists a relationship between Business & Practical skills and success of digital entrepreneurs, & whether there exists a relationship between technical skills and success of digital entrepreneurs. The survey was conducted on 35 digital entrepreneurs from different cities and bivariate statistical tools were used to analyse the data with the help of SPSS.

5. FINDINGS

H1 : There exists a relationship between the digital entrepreneur's interpersonal skills and the success of the digital entrepreneurs.

Table 1
Correlations

Interpersonal Skills / Success of Digital Entrepreneurs		Good management skills	Access to capital	Good product at a competitive price	Good customer service	Position in society	Reputation for honesty
1	I desire to Lead	0.328	0.25	0.456	0.342	0.066	0.245
2	I motivate others	.671*	.715*	0.596	.869**	0.494	.818**
3	I have good Communication Skills	.619*	0.551	0.524	0.492	0.031	0.446
4	I have good Listening Skills	.714*	.778**	.605*	0.595	0.273	0.601
5	I am good at Personal Relations	0.387	.619*	0.344	.602*	0.428	.787**
6	I follow Ethics	.722*	.691*	.612*	.621*	0.169	0.52

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

From the above Table 1, the entrepreneurs who can motivate others shows correlation with 4 factors related to the success of digital entrepreneurs. It is also found that entrepreneurs who has good listening skills, who are good at personal relations, and who follows ethics shows correlation with 3 factors related to the success of the digital entrepreneurs. The entrepreneurs who has good communication skills shows correlation with only one factor in the success of digital entrepreneurs. Entrepreneurs who likes to be the leader shows no correlation with their success. Since out of 6 factors related to Interpersonal skills, 5 factors show correlation with the success of digital entrepreneurs, we can conclude that there exists a relationship between Entrepreneur's Interpersonal skills with the success of the digital entrepreneurs. Among the 6 factors under Interpersonal skills, the factor that the entrepreneur who can motivate others has a strong correlation with the success of the digital entrepreneurs. With this we can conclude that entrepreneur who can motivate others is very important factor to the success of the digital entrepreneurs.

H2 : There exists a relationship between the digital entrepreneur's practical & business skills and the success of the digital entrepreneurs.

Table 2

Correlations

Practical & Business Skills / Success of Digital Entrepreneurs		Good management skills	Access to capital	Good product at a competitive price	Good customer service	Position in society	Reputation for honesty
1	I set a Goal	.636*	0.564	.755**	.782**	0.396	.719*
2	I am well planned and organized	0.428	0.322	.605*	0.595	0.273	0.427
3	I am good at Decision Making	.890**	.863**	.736**	.860**	.641*	.690*
4	I have Business Knowledge	.642*	.763**	.726*	.847**	0.516	.878**
5	I am good at identifying customers need	0.571	.706*	0.536	.736**	0.359	.791**

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

From the above Table 2, it shows that the entrepreneurs who are good at decision making shows correlation with all the 6 factors related to the success of the digital entrepreneurs. The entrepreneur who has very good knowledge in Business shows correlation with 5 factors related to the success of digital entrepreneurs. It also shows that the entrepreneurs who are goal oriented and who are good at identifying the customers need shows correlation with 4 factors related to the success of the digital entrepreneurs. The entrepreneurs who are well planned & organized shows correlation with only one factor related to the success of digital entrepreneurs. Since all the 5 factors under practical & business skills is getting correlated, it can be concluded that there exists a direct relationship between Business & Practical skills and the success of digital entrepreneurs. It can also be concluded that among all the factors under practical & business skill, the entrepreneurs who are good at decision making will have high possibilities for their success. Being very well organized only will not lead to their success.

H3: There exists a relationship between the digital entrepreneur's technical skills and the success of the digital entrepreneurs.

Table 3
Correlations

Technical Skills / Success of Digital Entrepreneurs		Good management skills	Access to capital	Good product at a competitive price	Good customer service	Position in society	Reputation for honesty
1	I am good at learning new Technical Skills	.732*	0.496	.797**	.646*	0.355	0.338
2	I am good at content writing	0	0.216	-0.055	0.38	0.196	0.431

3	I am good at Design Thinking	0.389	0.514	0.386	.753**	0.25	.646*
4	I am good at Software Programming	0	-0.106	0.015	0.112	-0.49	-0.189
5	I am good at Lean Startup+ Continuous Deployment	0.5	.640*	0.533	.700*	0.442	0.488
6	I know how to make use of technologies for my start ups	0	0.055	-0.092	0.189	-0.447	0.099

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

From the above Table 3, it shows that the entrepreneurs who are good at learning new technical skills shows correlation with 3 factors related to the success of digital entrepreneurs. The entrepreneurs who are good at design thinking and good at lean startup/continuous deployment shows correlation with 2 factors related to the success of entrepreneurs. we cannot conclude that there is a correlation between good content writer, software programmer & new technology applicant and the success of digital entrepreneurs. Out of 6 factors under technical skills, 3 factors are correlated with the success of digital entrepreneurs. With that we can conclude that there exists a relationship between the entrepreneur's technical skills and the success of digital entrepreneurs. We also can conclude that more possibilities are there for the entrepreneurs who can learn and pick up new technical skills will lead to success.

Table 4
Profile of the enterprise

Profile of the enterprise	Percentage
Year of establishment	
• 1995	9.1%
• 1996	9.1%
• 2000	18.2%
• 2010	18.2%
• 2012	9.1%
• 2013	9.1%
• 2015	9.1%
• 2016	18.2%
Location	
• Hyderabad	80%
• Delhi	10%
• Mumbai	10%
Type of Industry	
• Manufacturing	9.1%
• Retail	9.1%
• Service	36.4%
• Wholesale	18.2%

• Trading • Others	18.2% 9%
Source of initial funds • Own Capital • Borrowed Capital	 81.8% 18.2%
Website for the firm • Yes • No	 36.4% 63.6%
Mobile App for the firm • Yes • No	 9.1% 90.9%

The above Table 4 provides the details about the digital entrepreneurs who are been surveyed. In the survey, most of the entrepreneurs started their business between the years 1995 to 2016, in that 18% are in the year of 2016. Hyderabad being the technical hub of India, 80% of the entrepreneurs are belong to Hyderabad only. In our survey, 36% of the entrepreneurs are from the service industry. This may be because, for service industry the entrepreneurs no need to be economically strong. 18% of our digital entrepreneurs are from wholesale and 18% are from trading industry. In the digital entrepreneurs surveyed, 81.8% have invested their own capital as the source of initial funds and 18.2 % only from other sources. 36.4 % of them only have their own websites and 63.6% of them don't have a website for their startups. Only 9 % of the digital entrepreneurs have their own Mobile App and the remaining 90% of the entrepreneurs don't have Mobile app for their venture. It shows that most of them don't dependent on their mobile for their business.

6. CONCLUSIONS

With this analysis in our study we can conclude that among all the three variables (Interpersonal Skills, Practical & Business Skills & Technical Skills) the Practical & Business Skills is highly correlated to the success of digital entrepreneurs, and the next variable correlates is the Interpersonal Skills and the last variable correlates with the success of digital entrepreneurs is the Technical skills. With this we can conclude that entrepreneurs who has more practical knowledge and business knowledge and effectively using their interpersonal skills will lead their success. The entrepreneur's technical knowledge plays a very minimal role in the success of digital entrepreneurs.

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IMPACT OF EMOTIONAL INTELLIGENCE & SELF-EFFICACY ON JOB SATISFACTION & ORGANIZATIONAL COMMITMENT

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ABSTRACT

This project investigates about the relationship between Emotional Intelligence, Self-Efficacy and Organizational Commitment, Job Satisfaction. Two industries namely Service & Manufacturing are chosen for this study. The study focuses on the views from employees from these two sectors, so that the result can be interpreted. Demographic variables like gender and industry are considered in this study. Findings reveal that there is relationship between these variables.

1. INTRODUCTION

Nowadays, skilled and efficient manpower is the most precious wealth of any organization. To support this effective planning in human resources is necessary. Both Service & Manufacturing industries are growing in India and around the world. They need a combination of both machinery & manpower to excel in their business. India is the world's largest sourcing destination for the information technology (IT) industry, accounting for approximately 67 per cent of the US$ 124-130 billion market. The industry employs about 10 million workforces. Similarly, India's manufacturing sector could touch US$ 1 trillion by 2025. In this regard, there is space for further research in both the industries. Job Satisfaction & Organizational Commitment can reveal the mind-set of the employees. There are factors which may influence the above variables, like Emotional Intelligence & Self-Efficacy. This Study tries to find out the link between these variables.

2. OBJECTIVES

In brief our study investigates about the relationship between the components like Emotional Intelligence, Self-Efficacy and Organizational Commitment, Job Satisfaction in Service & Manufacturing industries.

Objective 1: To examine the relationship between emotional intelligence and organizational commitment

Objective 2: To examine the relationship between self-efficacy and organizational commitment

Objective 3: To examine the relationship between emotional intelligence and job satisfaction

Objective 4: To examine the relationship between self- efficacy and job satisfaction

3. REVIEW OF LITERATURE

EMOTIONAL INTELLIGENCE

Mayer (1990) initially proposed a definition of EI as a set of skills and abilities contributing to the appraisal of emotions, the regulation of emotions, and the use of emotions in reasoning. Martinez (1997) considers emotional intelligence as a set of non-cognitive skills, abilities, and capacities that make the individual resistant to external demands and pressures. Singh, O. R. (2007) Emotional Intelligence (E.I.) increases with age. It can be learned, cultivated and increased in adulthood and that the place to learn it is not the workplace but in school. For instance, children, who have trouble being accepted by their classmates are five times more likely to drop out. Aggressiveness has been linked to inability to handle in unpleasant scenes at home. Ealias, A., & George, J. (2012) Emotion is critical for energizing and directing behaviour. Also, to be happy and successful in life, one needs more than just cognitive ability as measured by Intelligence Quotient tests. Research consistently shows that IQ scores and academic intelligence do not predict important life outcomes very well.

SELF-EFFICACY

Wood and Bandura (1989) also mentions that self-efficacy will affect the belief of self-ability, mobility of positing, cognitive resources, and the activities that need to practice in live.McDonald and Siegall (1992) proposed that self-efficacy and job satisfaction have a positive correlation. (Chen et al., 2004) Self-efficacy is a useful concept for explaining human behaviour as research reveals that it plays an influential role in determining an individual's choice, level of effort, and perseverance Bradley and Roberts (2004) discover that self-efficacy rise the job satisfaction. Bandura A and Schunk DH (2004) Self-efficacy is one of the factors influencing job satisfaction. Self-efficacy means confidence in one's capability in implementing a certain behaviour successfully and that the expected results are obtained. Bandura et al. believe that the sense of self-efficacy is formed in people as a result of withstanding challenges and step by step and frequently practice of a behaviour .Martin JJ (2006) A strong sense of self-efficacy is effective on personal goals and how a person utilizes all his/her efforts to achieve them and to what extent he/she copes with problems and responds to his failures.

ORGANIZATIONAL COMMITMENT

Allen & Meyer (1996) Organizational commitment is commonly defined as a 'psychological link between the employee and his/her organization that makes it less likely that employee will voluntarily leave the organization. Meyer and Allen (1991) affective commitment is a sense of belonging and identification that increases the employees' involvement in the organization' goal and their desire to remain with the organization as thus, is considered as an important determinant of dedication and loyalty.According to Moynihan, Boswell and Boudreau, (2000) effective commitment refers to identification with, involvement in, and emotional attachment to the organization. Previous work has found that both job characteristics and job satisfaction are statistically significantly related to affective commitment. Kalleberg and Mastekaasa (2001) found that previous research on the relationship between job satisfaction and organizational commitment has not shown any consistent and easily reconcilable findings.

JOB SATISFACTION

Hoppock (1935) who is one of the earliest researchers in job satisfaction defined it as "a combination of psychological, physiological and environmental circumstances that causes a person to say: I'm satisfied with my job". Locke, (1976) defined job satisfaction as a 'pleasure or positive emotional state resulting from the appraisal of one's job or job experience'. Tett and Meyer (1993) divide the driving factors in job satisfaction into two categories: organizational, social, and cultural characteristics which are considered as external aspects and personality, affective, and emotional characteristics which are referred to as internal aspects. Smith *et al.* (1998) asserted that job satisfaction is an effective reaction to a job that results from the incumbent's comparison of actual outcome with those which are desired. Comm and Mathaisel (2000) found that "job satisfaction is influenced by the level of pay and performance, employee benefits, training, recruiting, learning curve inefficiencies, reduction in the client base, job design, life satisfaction, autonomy, growth satisfaction, satisfaction with co-workers, satisfaction with supervisors and customer satisfaction". Ghinetti P (2007) Job satisfaction is an attitude that shows how people feel about their job in general or, more specific, about its different domains, which comes from the person's evaluation of his job. Marlin L (2010) Any organization should identify the factors causing job satisfaction of employees to create the necessary motivation in human resources to utilize their maximum effort, skills, knowledge and expertise and help the organization in achieving its goals

4. RESEARCH DESIGN

This study uses a descriptive method, data collected to test the hypothesis or to answer questions concerning the current status of the study.

A multidimensional instrument in four parts was used for this study to capture the information on emotional intelligence, Self-Efficacy, organizational commitment and job satisfaction using the five-point Likert scale.

SCALE USED

1 Genos EI measurement scale, Palmer & Stough (2001) 2 General Self-Efficacy Scale, Schwarzer & Jerusalem (1995) 3 Organizational Commitment is measured on a 24 items scale, Myers and Allen (1991) 4 Job Satisfaction is measured on a 10 items scale, Hackman and Oldman's (1975)

SAMPLING METHOD

Random Sampling method was used. The questionnaires were handed over to employees of IT & Manufacturing industry and they further circulated it among their friends and co-workers within the industry.

SAMPLE SIZE

The sample size for the study was 120, comprising of 60 from Service industry, 60 from Manufacturing industry.

REGRESSION ANALYSIS OF COMPLETE SAMPLE

Regression analysis was conducted to find the relationship between Emotional Intelligence, Self-Efficacy, Job Satisfaction, Organizational Commitment. All 120 samples are involved in this regression analysis. First the relation between Emotional Intelligence, Self-Efficacy, Job Satisfaction, Organizational Commitment.

Table 1: Regression analysis between Emotional Intelligence, Self-Efficacy, Job Satisfaction, Organizational Commitment

Construct	Emotional Intelligence	Self-Efficacy
Job Satisfaction	.02	.00
Organizational Commitment	.00	.00

From Table 1, it is clear that there is positive significance between Emotional Intelligence & Job Satisfaction, between Emotional Intelligence & Organizational Commitment, between Self-Efficacy & Job Satisfaction, between Self-Efficacy & Organizational Commitment.

Table 2: Regression Analysis- Sub components of Emotional Intelligence is compared with dependent variable Job Satisfaction

Sub components	p-value	Remarks
Emotional Self Awareness	.74	Not Significant
Emotional Expression	.04	**Significant**
Emotional Awareness of others	.86	Not Significant
Emotional Reasoning	.03	**Significant**
Emotional Self-Management	.04	**Significant**
Emotional Management of others	.33	Not Significant
Emotional Self Control	.01	**Significant**
Self-Efficacy	.00	**Significant**

From Table 2, four components of Emotional Intelligence (Emotional Expression, Emotional Reasoning, Emotional Self-Management, Emotional Self Control) are significant with Job Satisfaction, which signifies that employees are satisfied with their jobs when they are have emotional intelligence of oneself. In other words, most of our respondents are concerned about expressing their own emotions. They are not only aware of their emotions but also know how to express and manage them. Self Efficacy are significant with Job satisfaction. Emotional Self Awareness, Emotional Awareness of others, Emotional Management of others are not significant with Job Satisfaction.

Further Regression Analysis of Sub components of Emotional Intelligence compared with dependent variable Affective Commitment indicated two components of EI (Emotional Self-Management, Emotional Self Control) and Self Efficacy are significant with Affective commitment. Employees believe that they should possess Self-management & control of emotions to be committed in the organization. Emotional Self Awareness, Emotional expression, Emotional Awareness of others, Emotional reasoning, Emotional Management of others are not significant with Affective Commitment.

Regression Analysis of Sub components of Emotional Intelligence compared with dependent variable Continuum Commitment indicated

two components of EI (Emotional Expression, Emotional Self-Management) and Self-Efficacy are significant with Continuum Commitment. Employees are concerned in expressing & managing their emotions, there by contributing to continuous commitment. Emotional Self Awareness, Emotional Awareness of others, Emotional Reasoning, Emotional Management of others, Emotional Self-control are not significant with Continuum Commitment.

Regression Analysis of Sub components of Emotional Intelligence compared with dependent variable Normative Commitment shows EI components like (Emotional Self-Management, Emotional Self Control), and Self-Efficacy are significant with Normative Commitment. Respondents believe that self-control & self-management skills in terms of emotions help them to be committed in the organization. Emotional Self Awareness, Emotional Expression, Emotional awareness of others, Emotional reasoning, Emotional management of others are not significant with Normative commitment.

5. INDUSTRY WISE REGRESSION ANALYSIS

Table 3: Regression analysis between Emotional Intelligence, Self-Efficacy, Job Satisfaction, Organizational Commitment-Service & Manufacturing Industry.

Variables	Service Industry				Manufacturing Industry			
	Male		Female		Male		Female	
	EI	SE	EI	SE	EI	SE	EI	SE
Job Satisfaction	.26	.00	.07	.06	.03	.00	.04	.21
Organizational Commitment	.00	.14	.00	.38	.00	.17	.00	.28

From Table 3, Service & Manufacturing industries are no way different from each other. For male employees, Emotional intelligence has positive significance with Job Satisfaction, Emotional Intelligence has positive significance on Organizational Commitment, Self-Efficacy has positive significance on Job Satisfaction. While Self-Efficacy is insignificant with Organizational commitment. For female employees, Emotional Intelligence has positive significance with both Job Satisfaction & Organizational commitment. While Self-Efficacy is insignificant with both Job Satisfaction & Organizational Commitment.

Table 4: Regression Analysis- Sub components of Emotional Intelligence is compared with dependent variable Job Satisfaction – Service & Manufacturing industry

Sub Components	Service Industry				Manufacturing Industry			
	Male		Female		Male		Female	
	p-value	Remarks	p-value	Remarks	p-value	Remarks	p-value	Remarks
Emotional Self Awareness	.48	Not Significant	.41	Not Significant	.46	Not Significant	.76	Not Significant
Emotional Expression	.85	Not Significant	.47	Not Significant	.45	Not Significant	.40	Not Significant
Emotional Awareness of others	.44	Not Significant	.52	Not Significant	.47	Not Significant	.29	Not Significant
Emotional Reasoning	.04	**Significant**	.12	Not Significant	.25	Not Significant	.25	Not Significant
Emotional Self-Management	.40	Not Significant	.66	Not Significant	.09	Not Significant	.09	Not Significant
Emotional Management of others	.02	**Significant**	.11	Not Significant	.62	Not Significant	.02	**Significant**
Emotional Self Control	.00	**Significant**	.21	Not Significant	.29	Not Significant	.29	Not Significant
Self-Efficacy	.00	**Significant**	.06	Not Significant	.00	**Significant**	.00	**Significant**

From Table 4, In service industry male employees believe that Emotional reasoning, Emotional Management of others, Emotional Self-Control are essential to be satisfied with their job. While the female employees of Service industry believe that the sub components of Emotional Intelligence don't contribute to Job Satisfaction. In Manufacturing industry, Male employees believe that the sub components of Emotional Intelligence don't contribute to Job Satisfaction. While female employees believe Emotional Management of others is essential & it contributes to their Job Satisfaction.

Table 5: Regression Analysis- Sub components of Emotional Intelligence is compared with dependent variable Affective Commitment – Service & Manufacturing industry

Sub Components	Service Industry				Manufacturing Industry			
	Male		Female		Male		Female	
	p-value	Remarks	p-value	Remarks	p-value	Remarks	p-value	Remarks
Emotional Self Awareness	.15	Not Significant	.97	Not Significant	.44	Not Significant	.56	Not Significant
Emotional Expression	.75	Not Significant	.76	Not Significant	.67	Not Significant	.21	Not Significant
Emotional Awareness of others	.94	Not Significant	.18	Not Significant	.14	Not Significant	.19	Not Significant
Emotional Reasoning	.92	Not Significant	.88	Not Significant	.99	Not Significant	.99	Not Significant
Emotional Self-Management	.08	Not Significant	.51	Not Significant	.00	**Significant**	.00	**Significant**
Emotional Management of others	.54	Not Significant	.73	Not Significant	.61	Not Significant	.61	Not Significant
Emotional Self Control	.02	**Significant**	.15	Not Significant	.22	Not Significant	.22	Not Significant
Self-Efficacy	.50	Not Significant	.33	Not Significant	.02	**Significant**	.75	Not Significant

From Table 5, In service industry male employees believe Emotional Self-Control is necessary for affective Commitment. While Female employees believe that none of the sub components of Emotional Intelligence individually contribute towards Affective Commitment. In Manufacturing industry, both male & female employees see Emotional Self-Management is necessary for Affective commitment.

Table 6: Regression Analysis- Sub components of Emotional Intelligence is compared with dependent variable Continuum Commitment – Service & Manufacturing industry

Sub Components	Service Industry				Manufacturing Industry			
	Male		Female		Male		Female	
	p-value	Remarks	p-value	Remarks	p-value	Remarks	p-value	Remarks
Emotional Self Awareness	.97	Not Significant	.72	Not Significant	.59	Not Significant	.24	Not Significant
Emotional Expression	.27	Not Significant	.00	**Significant**	.09	Not Significant	.02	**Significant**
Emotional Awareness of others	.59	Not Significant	.00	**Significant**	.45	Not Significant	.02	**Significant**
Emotional Reasoning	.82	Not Significant	.49	Not Significant	.37	Not Significant	.37	Not Significant
Emotional Self-Management	.29	Not Significant	.65	Not Significant	.00	Not Significant	.00	**Significant**
Emotional Management of others	.56	Not Significant	.89	Not Significant	.25	Not Significant	.27	Not Significant
Emotional Self Control	.10	Not Significant	.34	Not Significant	.86	Not Significant	.45	Not Significant
Self-Efficacy	.02	**Significant**	.22	Not Significant	.04	**Significant**	.04	**Significant**

From Table 6, In service industry for female employees there is significant relationship between Emotional Expression, Emotional awareness of others & Continuum Commitment. In manufacturing industry female employees believe the same way as service industry but in addition they believe Emotional Self-Management is also necessary for Continuum commitment. For male Employees in both the industries believe that none of the sub components of Emotional Intelligence individually contribute towards Continuum Commitment.

Table 7: Regression Analysis- Sub components of Emotional Intelligence is compared with dependent variable Normative Commitment – Service & Manufacturing industry

Sub Components	Service Industry				Manufacturing Industry			
	Male		Female		Male		Female	
	p-value	Remarks	p-value	Remarks	p-value	Remarks	p-value	Remarks
Emotional Self Awareness	.71	Not Significant	.12	Not Significant	.13	Not Significant	.45	Not Significant
Emotional Expression	.59	Not Significant	.08	Not Significant	.46	Not Significant	.86	Not Significant
Emotional Awareness of others	.61	Not Significant	.06	Not Significant	.98	Not Significant	.35	Not Significant
Emotional Reasoning	.84	Not Significant	.61	Not Significant	.22	Not Significant	.56	Not Significant
Emotional Self-Management	.42	Not Significant	.60	Not Significant	.00	Not Significant	.00	Not Significant
Emotional Management of others	.29	Not Significant	.16	Not Significant	.98	Not Significant	.46	Not Significant
Emotional Self Control	.37	Not Significant	.62	Not Significant	.39	Not Significant	.23	Not Significant
Self-Efficacy	.27	Not Significant	.60	Not Significant	.26	Not Significant	.63	Not Significant

From Table 7, Both industries show no difference in terms of response, there no significance between the sub components of Emotional Intelligence & Normative commitment.

6. GENDER WISE REGRESSION ANALYSIS

Table 8: Regression analysis between Emotional Intelligence, Self-Efficacy, Job Satisfaction, Organizational Commitment.

	Male		Female	
Construct	Emotional Intelligence	Self-Efficacy	Emotional Intelligence	Self-Efficacy
Job Satisfaction	.03	.00	.00	.00
Organizational Commitment	.00	.03	.00	.04

Emotional Intelligence has positive significance over Job Satisfaction, Emotional Intelligence has positive significance over Organizational commitment, Self-Efficacy has positive significance over Job Satisfaction, Self-Efficacy has positive significance over Organizational Commitment. In case of significance, Emotional Intelligence of female employees has higher significance over Job Satisfaction & Organizational Commitment, Self-Efficacy has of female employees has higher significance over Job satisfaction. But, Male employees has higher significance between Self-Efficacy and Organizational Commitment.

Further regression analysis of sub components of emotional intelligence was compared with dependent variable job satisfaction

Female employees the Emotional Management of others is significant with Job Satisfaction; Self-Efficacy is significant with Job Satisfaction. Male employees he Emotional reasoning is significant with Job Satisfaction; Self-Efficacy is significant with Job Satisfaction.

Table 9: Regression Analysis- Sub components of Emotional Intelligence is compared with dependent variable Affective Commitment

	Male		Female	
	p-value	Remarks	p-value	Remarks
Emotional Self Awareness	.95	Not Significant	.98	Not Significant
Emotional Expression	.46	Not Significant	.75	Not Significant
Emotional Awareness of others	.09	Not Significant	.16	Not Significant
Emotional Reasoning	.62	Not Significant	.63	Not Significant
Emotional Self-Management	.00	**Significant**	.17	Not Significant
Emotional Management of others	.71	Not Significant	.69	Not Significant
Emotional Self Control	.02	**Significant**	.03	**Significant**
Self-Efficacy	.03	**Significant**	.02	**Significant**

Emotional Self-Management is significant with Affective commitment for male employees. Emotional Self Control, Self-Efficacy are significant with affective commitment for both male & female employees. Emotional Self-awareness, Emotional Expression, Emotional awareness of others, Emotional reasoning, Emotional Management of others are not significant with affective Commitment.

Further Regression Analysis of the Sub components of Emotional Intelligence was compared with dependent variable Continuum Commitment and it was found that emotional Self-Management is significant for male employees, whereas Emotional Management of others is significant for female employees. Self-efficacy is significant with Continuum Commitment in both male & female employees. Emotional Self Awareness, Emotional expression, Emotional Awareness of others, Emotional Reasoning, Emotional Self Control are not significant with Continuum commitment.

Regression Analysis of Sub components of Emotional Intelligence compared with dependent variable Normative Commitment indicated

Emotional Self-Management is significant with Normative Commitment in case of male employees. Emotional Management of others component is significant with Normative Commitment in case of female employees. Emotional Self Awareness, Emotional expression, Emotional Awareness of others, Emotional Reasoning, Emotional Self Control are not significant with Normative commitment. Self-Efficacy is not significant with Normative commitment in both male & female employees.

7. DISCUSSION

Emotional Self-Control is a sub variable which is significant with almost all dependent variables, this shows employees believe that self-control is necessary for being satisfied with work and also committed to work environment. Female employees in manufacturing believe in controlling or influencing others emotions can bring them Job satisfaction. Employees to be committed with an organization, it is necessary to have emotional self-management. Female employees who believe in their Self-Efficacy, feels more satisfied with work than men. Male Employees believe that they are satisfied with their job when they are emotionally strong in reasoning. The present study has revealed the relationship between Emotional Intelligence, Self-Efficacy, Job Satisfaction & Organizational Commitment. Further into the study there are other findings like, most of our respondents are concerned about expressing their own emotions. They are not only aware of their emotions but also know how to express and manage them. Employees believe that they should possess Self-management & control of emotions to be committed in the organization. While employees are concerned in expressing & managing their emotions, there by contributing to continuous commitment. When considering the relationship between the variables considered in the study Service & Manufacturing industries are no way different from each other. From the level of significance, the organizations can give importance to factors influencing Job satisfaction & Organizational Commitment, so that it may increase the employee productivity indirectly.

This study has few limitations. First, the industries considered are only manufacturing & service, this can be expanded in future study to other industries to. To get a different perspective public sector can also be considered in future. Second, the sample size considered is limited to 120 samples. The number of samples can be increased in future study to get more accurate results.

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PUBLIC SECTOR ETHOS IN DECISION-MAKING: ORGANIZATIONAL IDENTITY PERSPECTIVE

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ABSTRACT

Every organization has a central, distinct and enduring character, which can explain its behavior. The article adopts this concept of Organizational Identity to describe attributes of Public Sector ethos. It suggests an inventory list of central and/or distinctive attributes of Public Sector Identity that drive its decision-making. Based on the existing literature related to public sector ethos and organizational identity as well as an interview with Indian public sector employee (DGM, BSNL), five such identity attributes, viz. Serving, Secure, Content, Specialized Multiple, and Tied by Ethics are proposed. Subsequently, these attributes are linked to a list of behaviors, which in turn have an impact on decision-making.

1. INTRODUCTION

The concept of organizational Identity and Identification is central to organizational effectiveness (Ashforth & Mael, 1989; Brown & Starkey, 2000). Albert and Whetten (2004) suggest that the concept of Identity has two primary uses. Firstly, scientists use it to characterize certain aspects of organizations and secondly, organizational members use it to characterize aspects of themselves.

In the present article, I have tried to use the concept of Public sector Identity from both the angles. From scientific point of view, I have tried to derive central and distinctive identity attributes of public sector using literature available on its value priorities, performance outcomes, working conditions and other behaviors etc. Assumption was that, through all this the fundamental identity would be reflected. Much research has been done on culture, outcome measures, reforms, but there is hardly any work related to identifying the basic innate aspects of the ethos of public sector. From scientific point of view, this paper attempts at a better understanding of certain aspects of the public sector decision-making.

Secondly, I also wanted to use the concept as an introspection tool to examine if the scientific view and the introspection view corroborate. For this purpose, a detailed interview with an Indian public sector employee, a DGM from BSNL was done. He was asked to introspect on simple questions about the character of public sector, such as “Who are we?”. “What kind of a business are we in?” “What is distinct about our sector?”etc.

The aim of identification is to come up with an identity statement (Albert and Whetten, 2004). But there is never a singular statement of Identity for an organization; what constitutes the character often changes according to the purpose for which the identity discussion is held

(Albert and Whetten, 2004). Here, in this article, I have studied the part of identity of public sector, which is salient and important in decision-making. At the time of making decisions, Identity is portrayed in the form of a guideline of what to do. (Albert and Whetten, 2004).
In conclusion, this article states some propositions and comes up with a comprehensive conceptual framework about Public sector Identity in the context of decision-making.
Let us first start with elaborating on the concept of organizational identity.

2. ORGANIZATIONAL IDENTITY

This section sets the context for this article by giving a brief introduction of the organizational identity framework. The discussion starts with the three-criterion definition of organizational identity. The dynamics of the concept are then elaborated by connecting it to concepts of organizational culture and Image.

2.1 What is Organizational Identity?

An organization's attempt to introspect its identity involves some key questions like, "Who are we?" "What kind of business are we in?" or "what do we want to be?" According to Albert and Whetten (2004), the adequate organizational Identity statement in answer to these questions should satisfy following three main criteria.

1. **Criterion of claimed central character**
   This entails attributes seen as the core and essence of an organization. They are not a definitive set but change depending on the purpose for which the identity discussion is held.
2. **Criterion of claimed distinctiveness**
   This includes the attributes, which appear to make an organization distinct from other organizations.
3. **Criterion of claimed temporal continuity**
   The identity features should exhibit sameness and continuity over time.

2.2 Dynamics of the Concept

The Organizational Identity Dynamics Model (Fig. 1) is represented in following diagram. Here, I will describe how Image and culture affect identity (two arrows directed to identity) as this will help when identifying identity attributes of the public sector.

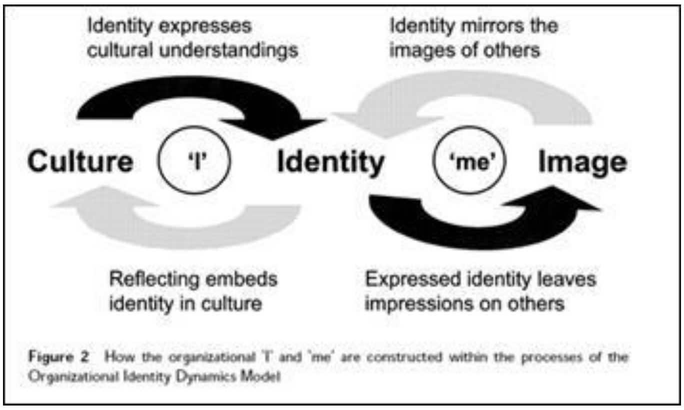


Figure 1: Organizational Identity Dynamics Model (adapted from Hatch & Schultz 2004)

- **Identity mirrors the Image of others:** What others think about an organization and how they react to it has an effect on identity through mirroring (Dutton & Dukereich, 1991). The authors explained this by discrepancy analysis. If there is a discrepancy between how others see and how organizational members see the organization, members will try to either change the organizational image or the identity.

- **Identity expresses cultural understandings:** "Cultural self-expression includes references to collective identity" (Brewer & Gardner, 1996; Jenkins, 1996). Symbols used to represent identity are reflections of the distinct culture (Hatch & Schultz, 2004).

Using this background of the organizational identity framework, the next section enlists identity attributes of public sector, salient in decision-making.

3. IDENTITY ATTRIBUTES OF PUBLIC SECTOR

This section gives an inventory of central and/or distinctive identity attributes. These are derived from the literature available on Public sector ethos, value priorities, work conditions and other behavioral aspects.

2.3 "Serving" Identity

Jorgensen & Isaksson (2015) have considered value priorities of 50 organizations in UK and Scandinavia to understand the public and private sectors' distinctive characters. Their findings suggest that public sector prioritizes goodwill over expertise to win trust of external audiences. Whereas, private sector gives more importance to expertise. This suggests that the sector still reflects traditional welfare state values of service provision to public and hence principally uses compassion to gain trust of audiences (Jorgensen & Isaksson, 2015).

From the dynamics of the identity concept section, we know that identity reflects cultural understandings (Brewer & Gardner, 1996; Jenkins, 1996). This suggests that public sector's cultural understanding of public service is expressed through its "Serving" identity attribute. If we take an analogy of the personality of a 'servant', he is seen as loyal, compliant, trustworthy etc. At the same time, he/she is also seen as subordinate, subdued, passive, unassertive etc. If we apply this to the Public Sector Identity as a whole, we can draw the parallel. The "Serving" identity of public sector could lead to goodwill in the sector, but at the same time, it could also make it idle leading to lack of autonomy in the sector.

This attribute was reflected clearly in the interview conducted with DGM, BSNL. He talked about how the public service motto makes the system idle.

"We go out of our way to provide an exchange in remote tribal places. It is a loss-making proposition, but still we go. We do it for service motto, but gradually sector is burning its fingers"

"Only BSNL operates in Pehelgam, Gulmarg, Chattisgarh etc. Why should we go there? Private sector can be forced. Why should we employ blind and handicapped people? If we have 30 drivers sitting idle without a car, why can't we remove them? Why can't we use them for other work? We are nothing but idle employers."

At the same time, he also talks about the goodwill that this 'serving' identity creates.

"I have been happy in this job. I stayed in a village where there in no water. Villagers used to serve us food, taking turns. We went to firing range of Pakistan to give connections to military people. Civilians and the military people there were happy that we went there and

treated us warmly as guests. You don't get money fast maybe, but motivation comes not when bosses praise but when the civilians praise you."

On the basis of the literature and the interview caselets, following propositions are stated:

#Proposition1: Goodwill in the public sector is a result of its "Serving" identity.

#Proposition2: Idleness and lack of autonomy in the public sector is a result of its "Serving" identity.

2.4 'Secure' Identity – Self-selection bias

Working conditions in public sector are more secure and favorable (Belante & Link, 1981). Public sector employees have greater job security and fringe benefits and higher pay levels; this, in turn leads to a workforce comprising people who are risk-averse and security-oriented (Barton & Waldron, 1978; Belante & Link, 1981).

Due to this self-selection bias, the public sector could have developed a 'secure' identity, which leads to risk-aversion and idleness in the sector.

The interviewee repeatedly stressed the secure and favorable conditions and the passivity it creates in employees.

"People choose public sector for security, ease of job, respect and power. Once you join, you cannot be removed. It is so hard to remove people, even for not working and inefficiency. So, there is not threat. They say, "This is Govt. job. Why should I initiate? Somebody will do it." People have to own the project for motivation. That's is a big issue in public sector."

"If somebody is not working, you reassign work and divert important work to capable people. 61% revenue goes to salary, whereas Max 5% goes to salary in private. Salary is ensured, you can't reduce the salary irrespective of the [quality of] work you do."

In the interview, it was also evident that the leadership in public sector is risk-averse due to being over secure for years.

"*The CMDs are also 55 plus. They are looking at retirement, [hence] they don't take risky decisions"*

From the discussion above, following proposition can be derived.

#Proposition 3: Risk aversion and Idleness in public sector is the result of its 'secure' identity.

2.5 'Content' Identity

The public sector employees are found to have significantly high levels of satisfaction (Steel & Warner, 1990). In some other cases, they are found to have low satisfaction (Baarspul & Wilderom, 2011). Hence, so far the results are inconclusive on job satisfaction. But, it is generally said that they have greater job security, fringe benefits, stability as well as higher pay (Barton & Waldron, 1978; Belante & Link, 1981; Baarspul & Wilderom, 2011). Also, if you do some additional good work, or suggest something new, there is no appreciation given (from the interview intercepts below). Hence, there is no incentive to learn and progress. The favorable working conditions with no appreciation for good work leads to ‘contentment’ with status quo. This ‘contentment’ and its reasons are evident in the following intercepts from the interview.

“*In Putupatti, I met a JTO, group-c officer from a very good engineering college. I asked him, “This is not good for your future, why are you doing this?” He said, “The salary that I get is the highest in entire Taluka. My parents and farmhouse everything is here. I am content.”*

“There is no appreciation. There is no difference between horse and donkey in the system. Promotions are given batch wise, an efficient guy cannot be promoted out of turn. Whether you do a good job or not, you get a promotion according to batch.”

“Govt. says, “don’t do negative, wrong things which will harm the sector. It’s ok if you don’t do appreciable work”

“We could see things transforming in mobile technology. But CMD didn’t understand. If one goes and tells, he will pat your back, but that’s it! The proposal goes from boss to boss to boss; nobody wants to do that.”

This part of identity could be reflected in behaviors like resistance to change and low employee learning orientation. This can be supported by the drive theory of motivation. The theory suggests that when psychological or biological needs are not met, one feels compelled and motivated to act and learn (Hull, 1943). Due to the basic contentment in public sector, there is not enough motivation to learn new things and change the status quo.

#Proposition 4: Change resistance and lack of learning orientation in public sector is a result of its ‘content’ identity.

2.6 Specialized Multiple Identities

Public Organizations tend to drift their identities frequently to add various new identities, as they have to take up roles that other organizations will not undertake (Hatch & Schultz, 2004). Hatch and Schulz (2004) have talked about two forms of multiple identities. One is a holographic form in which a single unit takes up multiple identities. The other is a specialized form in which multiple units take up different identities and none participate in core activities. This way, the organization has greater variety but it becomes difficult to buy-in commitment. There are debates and lack of clarity on what to be done and what they stand for which creates confusing external image in public mind.

The public sector, according to me, mostly has a specialized form of multiple identities. They have a rich variety of people and functions, but due to lack of deliberation on the core of the Organizational Ethos, there is goal ambiguity. This leads to a confusing image in the public.

“ECIL – Electronics Cooperation India Limited. They used to manufacture TVs and tubes. Now they are producing only voting machines. ITI, which is the telephone industry of India is into making Aadhaar cards. They don’t expertise in the field they are supposed to. They miss the bus and then they find other avenues for survival. ITI is a more a factory of food, where employees are buzzing only around canteen.

"Core issue is missed, which takes away the commitment as well. Unity is there, but also diffusion of responsibility, as potentials are not tapped."

"Thousands of crores of rupees copper is buried under ground. BSNL is confused, if to provide Internet in mobile or in landline. They are not aware of customer preferences. Mobile services market has come down by 9%, landline [is] also going down. So, what can they say when asked about core competency?"

Following are the propositions based on the discussion above.

#Proposition 5: Functional Variety in the sector is the result of its 'specialized multiple identities'

#Proposition 6: Goal ambiguity of the sector is a result of its 'specialized multiple identities'.

2.7 'Tied by Ethics' identity

Ethics refer to the rules of proper moral conduct according to the ideology of community or an organization (Eduard, 2009). Ethics is crucial in many of the public institution's day-to day decisions like managing public resources, interacting with public, policy management etc. Ethics also becomes vital in creating Trust in Government and its institutions (Eduard, 2009). But, can Ethics tie their hands and become a hurdle in effective decision-making? Following are some intercepts from the interview, which suggest some of the issues associated with being strictly tied by ethics.

"We have to compete with companies like Airtel…It's as of your hands and legs are tied, but you have to run like horse. We have got regulations, tenders, and procedures, CVCs. We are handling tax-based money; we have to spend every rupee carefully. In pursuit of spending one rupee carefully, we spend 100 rupees to ensure that we don't make a mistake."

"System does not allow emotions into the job. So, if one person thinks something new that has to be done, it goes through a lot of procedures as you have to make sure that you are spending every rupee carefully."

"If you don't do great its okay! But don't waste a single rupee."

"There is a lot of baggage [in the system]. The medical bills of BSNL employees are thousand crores. With this money, we can start and run two very good hospitals."

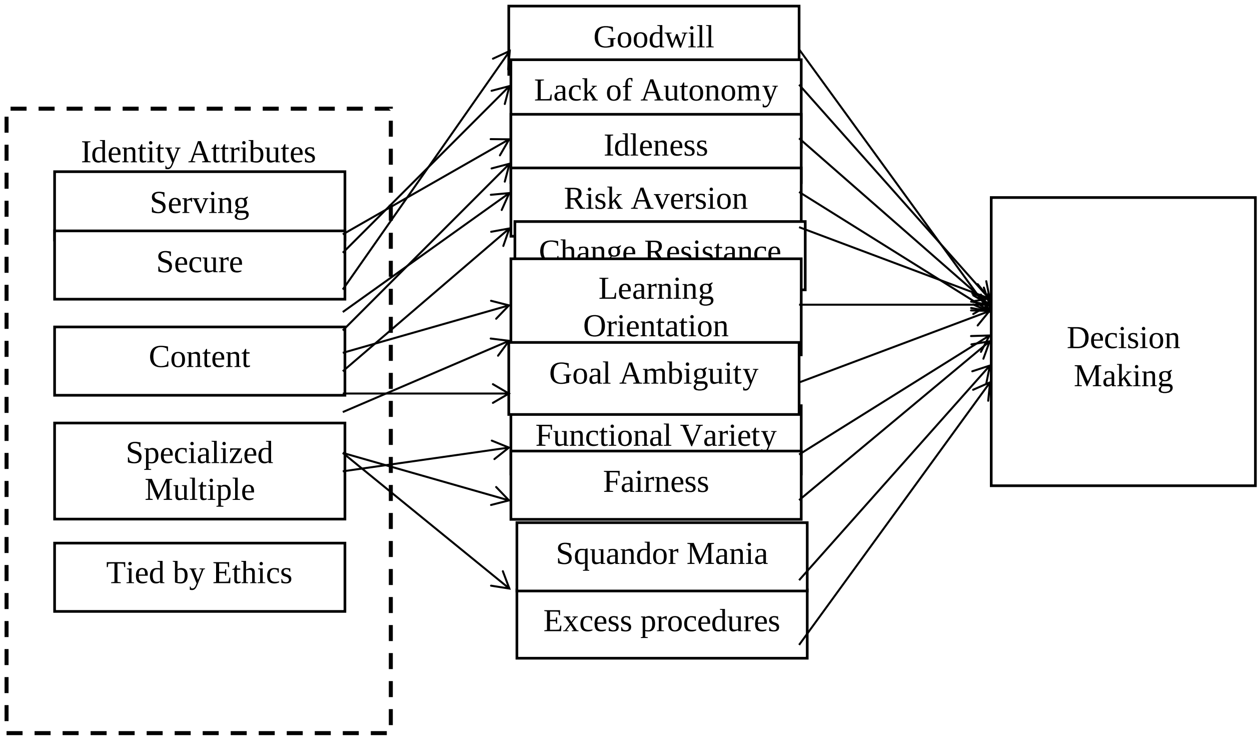
#Proposition 7: Fairness in public sector is the result of its 'Tied by ethics' identity.

#Proposition 8: Squander mania and excess procedures in public sector are the results of its ' Tied by ethics' identity.

4. PROPOSED FRAMEWORK

The following framework (Refer to Fig.1) represents the above-mentioned propositions. The five identity constituents of public sector are proposed to have an impact on decision making through several behavioral aspects. For instance, the 'serving' identity attribute of the public sector creates goodwill, but also creates idleness and lack of autonomy, hence impacting decision-making.

Fig.1: Public sector Identity Attributes in the context of decision-making



5. CONCLUSION

The contribution of this article lies in proposing a comprehensive conceptual framework of attributes, which define public sector identity in the context of decision-making. Five major identity attributes were identified namely: Serving, Secure, Content, Specialized Multiple, and Tied by Ethics. Several behavioral aspects have been linked to these identity attributes, which in turn impact decision-making in the sector.

The existing study relies extensively on the literature and single interview conducted with DGM, BSNL to define attributes for public sector identity. Conducting further interviews with public sector employees to get multiple perspectives could refine the proposed framework.

Future research can be done to test the framework by taking specific attributes and conducting an empirical qualitative study. Case study approach or interview method can be adopted to explore the above-mentioned propositions in greater detail.

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LITERATURE REVIEW ON RELATIONSHIP BETWEEN PERSONALITY TRAITS AND PERFORMANCE

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ABSTRACT

I: INTRODUCTION (DEFINITION OF KEY TERMS)
Personality has to do with individual differences among people in behavior patterns, cognition and emotion. Personality can be conceptualized using personality traits. Personality traits are enduring personal characteristics that are revealed in a particular pattern of behavior in a variety of situations. Personality has a significant impact on behaviour so on performance of individual in any domain.

II: PURPOSE OF STUDY
There are many organizational parameters like job performance, job satisfaction, leadership qualities etc. where personality traits play a significant role. This paper attempts to study the previous literature on association of personality traits to these performance parameters and understand these relationships.

III: RESEARCH METHODOLOGY
Various national and international research papers are studied; those which conceptualize personality and personality traits and those which establish relationship between personality traits and performance. Widely studied parameters like job performance, job satisfaction, leadership, employability etc. are taken into consideration.

IV: RESULTS & CONCLUSION
Most studies show that conscientiousness and emotional stability consistently predict job performance for all job types. In addition, some researchers have suggested that personality is useful for predicting other work-related criteria, like job satisfaction and job performance.

KEY WORDS: Personality, Big Five Traits, Job Performance, Job Satisfaction, Leadership

1. INTRODUCTION

While most of the research and survey data supports a strong relationship between personality and performance, the exact mechanisms behind this association still remains unexplored. There are various studies which attempt to exact the relationship between personality traits and various performance parameters. The following literature review attempts to understand these relationships; between personality traits and performance parameters like job performance, productivity, job satisfaction etc.

Personality

According to Kinicki, (2008), personality represents a stable set of characteristics that are responsible for a person's identity. The dimensions of personality are mostly outside our control but strongly influence our attitudes and our expectations and assumptions about others, thus influencing behaviour (Kinicki, 2008). Colquitt (2009) defines personality traits as the structures and propensities inside a person that explains his/her characteristic, patterns of thought, emotion and behaviour. Personality captures what people are like and ability captures what people can do (Colquitt, 2009). Personality traits are recurring regularities or trends in a person (Colquitt, 2009). Personality therefore represents a process of change and it relates to the psychological growth and development of individuals. Personality factors are of extreme importance in today's competitive organizational world. Often an unsuitable kind of personality proves disastrous and causes undesirable tensions and worries in organization.

Big Five Personality Traits

The Big Five personality traits are independent personality traits which determine five broad personality types including Conscientiousness, Extraversion, Neuroticism, Agreeableness and Openness to experience. Most research has been done in the last decade on the individual personality traits which will lead to certain kind of attitudes and work related behaviour.

Conscientiousness personality type includes traits such as hardworking, careful, thorough, responsible, organized, persevering (Barrick & Mount, 1991). Conscientiousness is associated with trait adjectives such as dependable, organized, reliable, ambitious, and hardworking (Colquitt, 2009).

Extraversion includes traits such as sociable, talkative, gregarious, assertive, active, ambitious and expressive (Barrick & Mount, 1991). They have a strong desire for praise, social recognition, status and power (MacCrae & Costa, 1997). Extraversion is associated with adjective traits such as talkative, sociable, passionate, bold, and dominant (Colquitt, 2009).

Neuroticism includes traits like anxious, depressed, angry, embarrassed, emotional, worried, and insecure (Barrick & Mount, 1991). Neuroticism is a personality type which is limited in social skills and avoids situations that demand taking control. Neuroticism has to do with nervous, moody, emotional, insecure, and unstable character (Colquitt, 2009).

Agreeableness include traits such as courteous, flexible, trusting, good natured, cooperative, forgiving, soft hearted, and tolerant (Barrick & Mount, 1991). Agreeableness has adjectives such as kind, cooperative, sympathetic, helpful, courteous, and warm (Colquitt, 2009).

Openness to experience include traits like imaginative, cultured, curious, original, broad minded, intelligent and artistically sensitive (Barrick & Mount, 1991). Openness has to do with curious, imaginative, creative, complex, refined, sophisticated (Colquitt, 2009).

Popularity of big five model

Economists and psychologists have lately focused on the Five Factor Model of Personality (Costa and McCrae 1992), commonly called the Big Five". The Big Five" approach has become tremendously popular for several reasons. First, these personality traits are unlikely to experience ordinal changes (Cobb-Clark and Schurer 2012), particularly after early adulthood. Changes over time in absolute levels are extreme over childhood, but some changes are also likely to occur during adulthood. However, they seem to be very gradual and determined by biological maturation rather than life experience (McCrae and Costa Jr 1999). Moreover, the Big Five is a robust measure both across cultures and samples (Barrick and Mount 1991). Finally, the Big Five personality traits are considered to be largely uncorrelated with cognitive skills which is defined as the ability to solve abstract problems (McCrae and Costa 1994), even though they impact performance in cognitive tests (Almlund et al. 2011). Hence, the Big Five personality traits constitute truly distinct factors in the analysis of labour market outcomes, which in addition are less prone to the endogeneity problem that affects other personality measures such as self-efficacy and self-esteem.

Two key developments have contributed to extensive literature surveys on personality traits. First, there has been a widespread acceptance of the big five factor model (McCrae & Costa, 1997). The five broad dimensions—neuroticism, extroversion, openness, conscientiousness, and agreeableness can characterize a wide range of trait descriptors of personality. The acceptance of a broad framework allows for the possibility of comparing studies that rely on different models of personality. Second, refinements in statistical techniques have allowed for meta-analyses that combine independent studies and investigate overall patterns of links between personality and work performance.

In particular, two meta-analyses published in 1991 investigated the relations between Big Five personality dimensions and various aspects of job performance (Barrick & Mount, 1991; Tett et al, 1991). Both papers reviewed the extant literature and classified the specific personality measures used in the different studies into one or more of the Big Five factors. The results of the two meta-analyses were similar. Across different occupational groups and measures of job performance, the Big Five markers, particularly conscientiousness, were related to performance. The results of these analysis have both strengthened industrial psychologists' interest in using personality measures to predict performance at work and have stimulated research that explains why specific individual differences relate to job performance.

For all the aforementioned reasons, labour economists have increasingly incorporated the Big Five into their toolkit.

2. LITERATURE REVIEW ON BIG FIVE TRAITS

Conscientiousness

A number of research studies have showed that persons with high Conscientiousness sets higher goals for themselves than others and were more committed to meeting their goals (Colquitt, 2009). A study of sales persons showed that conscientious sales men were particularly valuable during their first year of employment and their ambitious nature became more critical as they gained tenure and experience. However a third research also provided a compelling evidence regarding the benefits of these traits and came up with conclusions that childhood conscientiousness was strongly correlated with ratings of success five decades later. In summary, these traits are associated with typical high performance in routine conditions that surround job tasks and also have higher organizations commitment (Colquitt, 2009).

Agreeableness

Unlike conscientiousness, agreeableness is not related to job performance across all occupations and tasks. This is because communion striving is beneficial to some professions but detrimental to others. In such cases effective job performance may demand being disagreeable in the face of unreasonable request or demands. A research study done in the US revealed that agreeable participants were significantly less likely to be at home in their apartment and further more conveyed personal rapport during conversations (Colquitt, 2009).

There are several reasons to believe that agreeable individuals will be less likely to engage in withdrawal behaviours hence are more likely to be performers.

First, because of their adaptability and compliance, agreeable people are likely to be more understanding of negative aspects of their environment. In addition, because of the tendency to establish positive and satisfying relationships with people within their organizations, they are apt to think more highly of their work environments and hence tend to perform well in their workplace. Second, due to the interpersonal aspects of agreeableness (warmth, caring, likeability), agreeable individuals are more likely to have successful relationships with others (McCrae & Costa, 1991). As with extraverts, agreeable people are likely to have stronger ties to co-workers. Third, the compliance and dependence aspects of agreeableness are likely to cause employees high in agreeableness to perceive contractual obligations to stay with the organization. Finally, the negative side of agreeableness has been found to be a component of acting impulsively and engage in spontaneous quitting hence a high turnover of employees that directly impact on organizational performance. (Colquitt, 2009).

Extraversion

Like agreeableness, extraversion is not related to performance across all jobs or occupations. However, extraverts prioritize status striving which reflects strong desire to obtain power and influence hence care about being successful and influential (Colquitt, 2009). Research has suggested that extraverts, are more likely to emerge as leaders in social and task related groups and tend to be rated as the most effective in leadership roles by people who are following them. Other researchers have suggested that extraverts were associated with more positive events such as appraisal, sports achievements etc. (Colquitt, 2009). As individuals higher in extraversion are more likely to seek out social relationships, they are more likely to have a greater number of links to others within their organizations (McCrae & Costa, 1997). Because of this, extraverts are also more likely to become quickly socialized into their organization and, due to acculturation and social integration would be less likely to quit (Colquitt, 2009) and hence impact directly on performance positively.

Neuroticism

While extraversion is associated with positivity, Neuroticism is associated with negative affectivity in terms of the general performance of an individual. A recent study by Colquitt (2009) suggests that the negative affectivity even influences more general life satisfaction. The study suggested that individuals with Neuroticism personality tend to be less happy with their lives in general and hence they are unlikely to perform well in tasks.

As theorized with extraversion and trait positive effect, because job attitudes are considered affective in nature, low emotional stability and high trait negative affect likely to negatively impact individuals' job satisfaction. Individuals low in Emotional Stability and high in trait negative affect are more likely to encode and recall negative information and tend to have negative perceptions of themselves and their environment, hence likely to affect the performance of the organization in which they are working for (Watson et al, 2005). The insecurity aspects of those lower in emotional stability should also cause them to be more likely to quit, especially early in their job tenure.

This is because of the stress new employees endure in having to learn and perform new job responsibilities, as well as having to become socialized into a new work environment. During this early stage, job demands are novel, ill defined, and uncertain. Those lower in emotional stability tend to be unsure about their ability to perform the job (Judge& Ilies, 2002), particularly when learning the demands of a new job, and this may cause them to be prone to abandon such positions early in their tenure. Further empirical evidence supports these arguments as low levels of emotional stability have been linked to giving up on stress-inducing goals (Judge & Ilies, 2002) and career indecision (Colquitt, 2009) and hence likely to affect performance negatively in an organization.

Generally, this trait is likely to be helpful in jobs that require high levels of creativity, defined as a capacity to generate novel and useful ideas and solutions (Colquitt, 2009). This trait is also associated with creative thoughts that excel at the style of thinking demanded by creativity and hence are likely to perform positively in work related contexts. In summary, these traits are associated with typical performance in routine conditions that surround job tasks and also have higher organization commitment and performance than any other trait dimension such as extraverts, openness to experience, emotional stability (neuroticism) and agreeableness.

Openness to experience

Openness to experience include traits like imaginative, cultured, curious, original, broad minded, intelligent and artistically sensitive (Barrick & Mount, 1991). Agreeableness and openness to experience are not good predictors of job performance (Barrick, Mount & Judge, 2001).

Openness to experience has not been shown to correlate significantly with job performance. This may seem counterintuitive, because openness to experience is sometimes also referred to as intellect, and cognitive ability which is presumably related (Colquitt, 2009). One's openness to experience should be indicative of creativity and originality; consequently, there may be a direct but unobvious connection to job performance in terms of creating and trying new things that may improve personal productivity or otherwise maybe even affect general productivity on a greater scale-for example, a new way of doing things may improve operation of an entire company and hence positively affect the performance of an organization (Colquitt, 2009).

However, more recent research (LePine & Dyne, 2001) has suggested that conscientiousness, extraversion, and agreeableness are all related to cooperative behaviour but that they are not related to task performance. Although this fortifies the case that job performance is related to the five-factor model via increased cooperativeness among co-workers, it lays siege to the role of personality by implying that actual job performance (task performance) is related to cognitive ability and not to personality (LePine & Dyne, 2001).

3. LITERATURE REVIEW ON PERSONALITY TRAITS AND VARIOUS PERFORMANCE PARAMETERS.

Personality traits and interview performnace

Although there is substantial evidence on how personality constructs are predictors of job performance, there is less systematic evidence of how personality characteristics relate to success in the interviewing process. According to a research, Extraversion, Openness to Experience, and Conscientiousness were positively related to the use of social sources (e.g., talking to others) to prepare for interviews. Conscientiousness was positively related to the use of non-social preparation. Use of social sources for preparation for initial interviews was positively related to the likelihood of receiving follow-up interviews and job offers. The results suggest that personality is related to interviewee's success in part through actions taken well before the interviewing process begins and in part through the interviewers' inferences of the applicants' personality during the interview. (CALDWELL and BURGER 1998)

In another study, the authors developed and tested a model of performance in job interviews that examines the mediating role of interviewing self-efficacy (job applicants' beliefs about their interviewing capabilities) in linking personality and biographical background with interview success. Extraversion, Conscientiousness, and leadership experience influenced interview outcomes indirectly through the more proximal effects of self efficacay. (Tay et al, 2006)

Personality traits and earning differences

Cognitive skills have a significant role in explaining earning differences. However, variations in cognitive abilities fail to justify for the residual wage inequality. Economists have now started to focus on the importance of non-cognitive skills in determining earnings differences. Within the set of non-cognitive skills, personality traits are one of the most relevant instruments in the study of differences in earnings.

Mueller and Plug (2006) show that the effect of personality traits on earnings is of similar magnitude to the one of cognitive skills. In addition, these traits can help to account for the strong intergenerational correlation in labour market outcomes that cannot be attributed to parental education and wealth transmission.

Recent studies have linked job performance and wages to the Big Five" personality traits: openness, conscientiousness, extraversion, agreeableness, and neuroticism (Heckman et al. 2006). Using survey data, these papers report a strong relationship between some of these personality traits and wages. Conscientiousness, and emotional stability (the inverse of neuroticism) show a robust positive relationship with earnings. While agreeableness has a strong negative relationship. There is also some evidence of a positive effect of extraversion and openness to experience on wages.

The MBAs whose personalities were more similar to a template of the successful young manager received more job offers upon graduating and, subsequently, earned higher salaries, were more likely to be working full-time, and had changed jobs less often than did those who fit the managerial template less well. (Chatman, Caldwell and O'Reilly 1999**)**

Personality traits and labour productivity

When we consider labour productivity, more neurotic subjects perform worse, and more conscientious individuals perform better (Maria et al. 2014). They studied this relation under a controlled laboratory set-up. Using a gender neutral real-effort task, they analyse the impact of the Big Five personality traits on performance. These findings that more neurotic subjects perform worse, and that more conscientious individuals perform better are in line with previous survey studies and suggest that at least part of the effect of personality on labour market outcomes operates through productivity. There is robust negative correlation between neuroticism and performance and some evidence supporting a positive correlation between conscientiousness and productivity.

Personality traits and on job performance

Psychologists have profusely studied the link between personality and on job performance (Barrick and Mount (1991), Tett, Jackson and Rothstein (1991).

This literature shows a consistent strong positive effect of conscientiousness and emotional stability on job performance, while the effects of other personality traits are connected to certain occupations (extraversion has a positive effect on occupations involving social interactions) or particular job aspects (openness to experience is related to training proficiency). A long tradition of research in psychology and organizational behaviour has attempted to link personal characteristics, particularly personality, to job success. In particular, two meta-analyses published in 1991 investigated the relations between Big Five personality dimensions and various aspects of job performance **(Barrick & Mount, 1991; Tett, Jackson, & Rothstein, 1991).** Both papers reviewed the existing literature and classified the specific personality measures used in the different studies into one or more of the Big Five factors. The results of the two meta-analyses were similar. Across different occupational groups and measures of job performance, the Big Five markers, particularly conscientiousness, were related to job performance.

The results of these analysis have both strengthened industrial psychologists' interest in using personality measures to predict performance at work and have stimulated research that explains why specific individual differences relate to job performance.

The Barrick and Mount research 1991

Five occupational groups were examined by Barrick and Mount (1991) in their meta-analysis which were; professional group, police group, managers group, sales group, skilled/semi-skilled group and three criteria of performance on job i.e., job aptitude and expertise, training aptitude and expertise, and personal records. The worth mentioning result in the study is that the Conscientiousness was found to be a reliable and valid forecaster for all standard types and for all professional groups studied. Secondly for two professions, manager and sales, Extraversion was observed to be an effective forecaster. Ranked by supervisors in another meta-analysis, the Conscientiousness was also shown as an effective forecaster in the performance on the job. In one of the criterion types known as training expertise, the Openness to Experience was observed to be an effective forecaster. The justification of these findings is that on this dimension generally the persons with the high scores are anticipated to have optimistic approaches toward learning experiences. When the individual comes in the training program, a key success factor would be the approach of that person. This aspect is highly related to cognitive capability. Hence, it is possible that motivation to learn along with the capability to learn is measured by Openness to Experience. Furthermore agreeableness and extroversion are completely connected with the employees' job performance rankings, which are given by managers. In agreeableness and emotional stability there are certain inconsistencies.

Barrick and Mount (1991) observed Agreeableness as an unimportant forecaster for the performance on the job. In case of Emotional Stability, the associations with performance on the job were comparatively on the lower side. Perhaps one of the descriptions, according to Barrick and Mount (1991), was that the extremely 'neurotic' persons are incapable to work successfully on their own and, resultantly, there is a less chance of including them in the labour force.

Tett et al. (1991) have also reported that there exists an overall correlation between personality and job performance. In contrast to the results of Barrick and Mount (1991), Tett et al. (1991) observed that Agreeableness and Openness to Experience have close association with job performance.

Rothmann & Coetzer (2003) studied big five traits and job performance. The objective of this research was to determine the relationship between personality dimensions and job performance. A cross-sectional survey design was used. The study population consisted of 159 employees of a pharmaceutical company. The NEO-Personality Inventory – Revised and Performance Appraisal Questionnaire were used as measuring instruments. The results showed that Emotional Stability, Extraversion, Openness to Experience and Conscientiousness were related to task performance and creativity. Three personality dimensions, namely Emotional Stability, Openness to Experience and Agreeableness, explained 28% of the variance in participants' management performance.

Davis and Damary (2012) replicated a similar study.The findings from a research on the personality dimensions and performance showed that the conscientiousness personality trait is the most predictive of job performance at followed by openness to experience, agreeableness, extraversion and emotional stability. Conscientiousness personality trait is found to be most predictive of job performance at the organization. Hence personality is useful for predicting other work-related criteria, like job satisfaction and job performance.

A conceptual study was attempted to assess the Impact of Personality Traits and Employee Work-Related Attitudes on Employee Performance in Saudi Arabia context. The study hypothesized that personality traits and work-related attitudes such as job involvement and organizational commitment have direct positive significant relationships with employee work performance, with the moderating effect of organizational culture. Awadh and Ismail (2012)
Of the five factors, the single factor of conscientiousness is the most predictive of job performance and therefore positively influence work performance (Hurtz & Donovan, 2000) Agreeableness has a very weak relationship with job performance and it is not an important predictor of job performance (Barrick & Mount, 1991).

Big Five traits of Agreeableness, Conscientiousness, and emotional stability are the traits most strongly associated with job performance in jobs involving interpersonal interactions. (Mount, Barrick, and Stewart. 1998)

Personality Traits and Organizational Performance

In a study, Barrick, Mount and Judge quantitatively summarized the results of 15 prior meta-analytic studies that have investigated the relationship between the Five Factor Model (FFM) personality traits and job performance. Results support the previous findings that conscientiousness is a valid predictor across performance measures in all occupations studied. Emotional stability was also found to be a generalizable predictor when overall work performance was the criterion, but its relationship to specific performance criteria and occupations was less consistent than was conscientiousness. Though the other three Big Five traits (extraversion, openness and agreeableness) did not predict overall work performance, they did predict success in specific occupations or relate to specific criteria. The studies upon which these results are based comprise most of the research that has been conducted on this topic in the past century. (Barrick, Mount and Judge 2001)

Research indicates that personality acts as a moderating factor: workplace deviance was more likely to be endorsed with respect to an individual when both the perception of the workplace was negative and emotional stability, conscientiousness, and agreeableness was low (Colbert et al 2004). Personality traits are associated with occupational outcomes. Judge, et al. 1999 demonstrates that childhood personality traits predict adult career attainment.

Personality traits and employability

In addition to wages and labour force status, other labour market outcomes are influenced by personality traits. For instance, Cobb-Clark and Tan (2011) report that non-cognitive skills have a different effect in the probability of being employed in certain occupations. Fletcher (2013) argues that emotionally stable and conscientious individuals are more likely to be employed; the latter effect may be due to their effective job seeking behaviour as documented by Uysal and Pohlmeier (2011).

Personality traits and willingness to compete

Muller and Schwieren (2012), used laboratory experiment to explore the relationship between the Big Five personality traits and entry into competition. They found that neuroticism relates to lower performance in competition and lower willingness to compete**.**

Personality Traits and Job Satisfaction

A meta-analyses shows that personality traits relate to job satisfaction (Judge, et al. 2002). Different studies have been conducted to determine the dispositional causes of different kind of work related attitudes and behaviours. Judge (1997) gave the concept of core self-evaluations to determine the dispositional causes of job satisfaction. Judge, Heller and Mount (2002) studied the relationship between Big Five personality traits and job satisfaction. These studies concluded that Big Five personality traits are a useful measure to determine work related attitudes and behaviours. The traits of Extraversion, Agreeableness, Conscientiousness, and Neuroticism are all associated with job satisfaction. (Timothy, Heller and Mount 2002)

Michael Mount et al. (2006) did a study to understand relationship of personality traits and counterproductive work behaviors with the mediating effects of job satisfaction. The study used path analysis to test a model that posits that relevant personality traits will have both direct and indirect relationships with counterproductive work behaviors through the mediating effects of job satisfaction. Based on a sample of 141 customer service employees, results generally supported the hypothesized model for both boss- and self-rated behaviours. Agreeableness had a direct relationship with interpersonal counterproductive work behaviors; Conscientiousness had a direct relationship with organizational counterproductive work behaviors.

Personality traits and academics

Noftle and Robins 2007 and Poropat 2009 show that the Big Five, especially Conscientiousness, predict academic achievement, including grades and standardized test scores.

Personality traits and employee turnover

Historically, researchers have sought to identify environmental causes of employee turnover. This paradigm has led to the under-emphasis of individual differences as being an important cause of individuals' turnover decisions. The results of the meta-analysis show that personality traits do have an impact on individuals' turnover intentions and behaviors. The trait of Emotional Stability best predicted (negatively employees' intentions to quit, whereas the traits of Conscientiousness and Agreeableness best predicted (negatively) actual turnover decisions. A theoretically developed path model showed important direct effects from personality to intentions to quit and turnover behaviors that were not captured through job satisfaction or job performance. These direct effects indicate that employees who are low on Emotional Stability may intend to quit for reasons other than dissatisfaction with their jobs or not being able to perform their jobs well. The direct effects on turnover suggest that individuals who are low on Agreeableness or high on Openness may engage in unplanned quitting. Personality traits had stronger relationships with outcomes than did non-self-report measures of job complexity/job characteristics. **(Zimmerman, 2008).**

Personality traits and leadership

Leadership abilities are often essential in the workplace, especially for individuals who aspire to move up into the ranks of management. Studies of Asian military units have found that neuroticism is negatively correlated with leadership abilities **(Lim & Ployhart, 2004).** Contrary to what the researchers hypothesized, agreeableness is negatively correlated with leadership abilities as well. Openness to experience is unrelated to leadership abilities, but extraversion is positively correlated with leadership abilities (Lim & Ployhart, 2004). This evidence is consistent with the long-standing idea that in teams there are leaders and there are followers; the leaders make decisions and the followers abide by them. Although agreeableness is positively correlated with working with a team and hence performance, it is negatively correlated with being a leader **(Westerman, 2007).**

Four of the Big Five traits predict leadership, with only the trait of Agreeableness not associated with leadership. Together, the remaining four personality traits explain substantial variance in leadership ability. A research indicated that the relations of Neuroticism, Extraversion, Openness to Experience, and Conscientiousness with leadership were highly correlated (for more than 90% of the individual correlations were greater than 0). Extraversion was the most consistent correlate of leadership across the study. (Judge et al, 2002.)

The relationship among the three of Big Five personality traits (extraversion, agreeableness, and openness to experience) and equity sensitivity (benevolence) and transformational leadership behavior was examined with the subject of 104 MBA students at a graduate school in the US. Equity sensitivity refers to the individual differences in the preference for exceeding personal efforts relative to the organizational outcomes. As a result, openness to experience and equity sensitivity showed significant positive relationships with transformational leadership. **(Eunhui Lee 2012)**

Despite the general lack of evidence to support the relationship between personality and leader effectiveness, Kenny and Zaccaro (1983) reported that between 48% and 82% of variance in performance during a leaderless discussion group was due to “personality” ratings. While this finding appears contradictory to previous research, the inconsistencies may stem from limited research designs and relatively inadequate construct measurement in most previous studies. Therefore, further study is clearly warranted. Some recent research has provided evidence to support the personality- performance relationship in leadership positions.

Big 5 personality traits are directly linked to transformational leadership sub-dimensions and to the overall lmeasure, and are indirectly linked to leader performance. Interestingly, however, different combinations of the personality traits are differentially related to the transformational leadership behaviors. For instance, whereas inspirational motivation is related to all personality traits, only openness to experience and agreeableness affect individualized consideration. These findings emphasize the importance of examining the transformational leadership sub-dimensions separately to gain a deeper understanding of the nature and the antecedents of these leadership behaviors. (Deinert et al 2015)

4. DISCUSSION

In particular, the Five-Factor Model (FFM) of personality, which is made up of the dimensions of Agreeableness (reflecting likeability and friendliness), Conscientiousness (dependability and will-to-achieve), Emotional Stability (adjustment versus anxiety), Extraversion (activity and sociability), and Openness (imaginativeness, broad-mindedness and artistic sensibility), has been important in this regard. Barrick and Mount (1991) used the FFM to organize their meta-analysis, thus providing one of the first broad-ranging estimates of the relationship between personality and work performance. Since then, a series of meta-analyses, culminating in Barrick, Mount and Judge's (2001) second-order meta-analysis, have provided a largely consistent picture — personality measures, especially Conscientiousness, are associated with a range of workplace performance criteria.

5. CONCLUSION

Most studies show that conscientiousness and emotional stability consistently predict job performance for all job types (Barrick, Mount, & Judge, 2001). In addition, some researchers have suggested that personality is useful for predicting other work-related criteria, like job satisfaction and job performance (Goodstein & Lanyon, 1999; Judge, Heller, & Mount, 2002). Despite the generally positive relationship between personality and job performance, there is no empirical evidence for this relationship in leadership/ supervisory positions (Barrick & Judge, 2001).

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STUDY ON VALUE CREATION USING E-HRM THROUGH TANGIBLE AND INTANGIBLE VALUE OUTCOMES

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1. INTRODUCTION

Human Resource Management (HRM) is a process of bringing people and organizations together so that goals of each are met. HRM is concerned with the most effective use of people to achieve organizational and individual goals.

Global competition is demanding and organisations have to use innovative ideas to stay competitive. To improve HR's own efficiency and contribute to the organisations' bottom line, many HR organisations are transforming to an electronic human resource (e-HR) business model, moving traditional HR tasks, tools and processes onto internal intranets or the Internet via a portal.

Electronic Human Resource Management (e-HRM) is the application of IT for HR practices which enables easy interactions between employees and employers. It stores information such as company payroll, employee data, training, and recruitment. e-HRM is a management concept that utilises information technology to carry out HR functions.

The aim of a well-functioning e-HRM system is to better manage employee relations and improve the efficiency with which information is used for decision making purposes.
In today's VUCA world where disruptive innovations can alter the process and operations of century old industries by displacing technologies, this study is conducted to identify if there is organisational value created through the use of e-HRM to gain competitive advantage.

2. DEFINITIONS OF KEY TERMS

- HRM: Human Resource Management is a process of bringing people and organizations together so that goals of each are met.
- e-HRM: Electronic Human Resource Management is the application of IT for HR practices which enables easy interactions between employees and employers.
- Value Creation: Improving the organisation's ability to compete in its chosen market rather than being restricted to process automation.

- HR operational cost reduction: Reducing the cost of day-to-day HR service delivery, either through direct HR headcount reduction or indirect cost reduction (or cost avoidance) such as lower reliance on third party suppliers and technology integration.
- People management/productivity: Using technology to support people management by improving managerial accountability, freeing up HR time to support managers and providing management information that supports decision making.
- Strategic capability: Capabilities that can only be accessed through technology, for example, reinforcing the external brand of the organisation through web recruitment.

3. THEORETICAL FRAME WORK

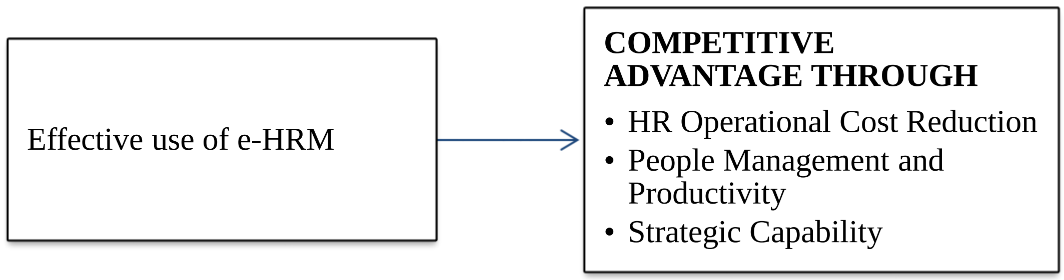

Figure 1. e-HRM Value Creation to gain competitive advantage.

HR operational cost reduction:
Reducing the cost of day-to-day HR service delivery, either through direct HR headcount reduction or indirect cost reduction (or cost avoidance) such as lower reliance on third party suppliers and technology integration.
For example, employees keeping their own personal data up-to-date through an HR portal.

People management/productivity:
Using technology to support people management by improving managerial accountability, freeing up HR time to support managers and providing management information that supports decision making. Technology tools can also be pivotal in supporting a restructuring of the HR function, enabling alternative organisation structures and new ways of working.
For example, tools that support basic HR processes such as the use of web-based-technology for recruitment and selection of new personnel.

Strategic capability:
Providing the organisation with capabilities that can only be accessed through technology, for example, reinforcing the external brand of the organisation through web recruitment, improving employee satisfaction with HR processes, providing long-term strategic information and in some cases, enabling a shift in the relationship between the organisation and employees.
For example, creating a change-ready workforce through e-HRM that enables the workforce to develop in line with the company's strategic choices.

4. LITERATURE REVIEW

Year	Author	Major Finding
2016	Mohammad Ali Kohansal, Tayebeh Sadegh, Mina Haghshenas	The findings showed that e-HRM has positive and significant effect on value creation. The research showed that just e-

		HRM acceptance doesn't result in operational cost reduction, managerial decisions would play an important role in getting the desired results.
2015	Fizasabir, Muhammad Abrar, Mohsin Bashir, Sjjad Ahmad Baig, Rizwan Kamran	According to the research there are two important value creating factors, HRM effectiveness and Perceived effectiveness of HR practices. The research findings say that organisations have to focus on the success enablers that can influence the two value creating factors.
2015	Chandra Sekhar And Manoj Patwardhan	The research findings were large elimination and cutting of redundant activities and a boost to the profit margins of service organisations. Researchers also found that e-HRM seemed to be both motivator and facilitator of change in the service industry of India. They also found that e-HRM reduces the dependence on paper.
2013	Qais Abdulkadum Kahalf Alsawafy	The research findings stated that the use of IT plays a key role to obtain competitive advantage. It also found that the use of IT influences HR and as such affects HR business performance.
2012	Mahisha Suramardhini	The researcher found that e- HRM acts as advance business solution that provides complete on-line support in the management of all processes, activities, data and information required to manage human resources in a modern company.
2011	Ruben Gonzalez, Daisaku Koizumi, Kinga Kusiak	The researcher found that companies make use of e-recruitment, e-training and e-performance appraisal in their HR processes. They also found that use of e-HRM results in, increase of speed in processes, standardization, elimination of distance constraints and possibilities for data archiving.
2010	Steve Foster	The researcher with the help of the research developed the e-HRM Value Model and highlights that e-HRM Value Model can create value in one of only three ways: 1. HR operational cost reduction. 2. People management/productivity 3. Strategic capability.

Table 2. Literature Review

5. RESEARCH METHODOLOGY

- Objective
  In today's VUCA world where disruptive innovations can alter the process and operations of century old industries by displacing technologies, the objective of this study is to understand how organisational value can be created in HR operations using e-HRM to gain competitive advantage.
  In this study we have also tried to integrate social collaboration with e-HRM with the help of which organisations can gain competitive advantage.

- Hypothesis
  Hypothesis A
  H0: Operational efficiency of e-HRM is sector dependant.
  H1: Operational efficiency of e-HRM is sector neutral.

  Hypothesis B
  H0: Irrespective of the sector e-HRM does not creates value by enhancing productivity, and reducing operational costs.
  H1: e-HRM creates value by enhancing productivity, reducing operational cost's irrespective of the sector.

  Hypothesis C
  H0: e-HRM's enhancement of organisation's strategic capability is sector dependant.
  H1: e-HRM enhances organisation's strategic capability irrespective of sector.

  Hypothesis D
  H0: e-HRM cannot be used in any sector as a social collaborative tool to promote community of practise.
  H1: e-HRM can be used in any sector as a social collaborative tool to promote community of practise.

- Methodology
  Primary and Secondary Data
  Both Primary and secondary data is used. Since the topic of the study is e-HRM, primary data was also collected using electronic medium's only. Secondary data was collected by referring to previous researches conducted on e-HRM.

  Questionnaire Design
  Questionnaire was prepared with an objective to collect relevant data to analyse, draw conclusion and for making recommendations to the findings of the study. The first section of the questionnaire consisted of 4 questions related to the demographics . Questionnaire was then divided into 4 clusters, each cluster consisted of 5 questions.

  Rating Scale, Sampling and Sample Size
  In all the 4 clusters, Likert Scale was used where 1 being strongly agree and 5 being strongly disagree.
  Working professionals at various levels of management from various Industrial sectors were selected on the basis of Random Sampling. Sample Size is 150.

  Respondents Profile

	in % of total

Experience	0 - 2.9 years 3 - 5 years Above 5 years	6.67 24.00 69.33
Role	Executive Junior Management Middle Management Senior Management	21.33 22.00 46.00 10.67
Gender	Female Male	27.33 72.67
Sector	Services (Others) IT and ITES BFSI Manufacturing, Engineering services, Construction Government	27.33 36.67 14.67 19.33 2.00

Table 3. Respondents Profile (n = 150)

Interpretation:
93.33% of respondents have 3 years or more experience, 56.67% of respondents are in managerial roles having people management responsibilities which means respondent profile is relevant to the topic under study, the sample size represents a fair amount of "diversity and inclusion", though skewed towards male gender(72.67%), sample size represents fairly diversified sectors though skewed towards services (particularly IT and ITES 36.67%).

6. CLUSTER WISE DATA ANALYSIS AND INTERPRETATION

- Cluster 1: Questions 1-5 based on HR Operations

Cluster 1	% Of Respondents scoring 1	% Of Respondents scoring 2	% Of Respondents scoring 3	% Of Respondents scoring 4	% Of Respondents scoring 5
Q1	21.43	41.33	23.33	11.33	2.58
Q2	18.66	44.67	22.00	10.67	4.00
Q3	22.00	36.67	25.33	13.33	2.67
Q4	15.43	35.33	31.33	12.67	5.24
Q5	25.33	40.67	22.67	7.33	4.00

Table 4. Cluster Analysis - HR Operations Perspective; Frequency Distribution (n = 150)

Interpretation:
Around 60% of the respondents in this cluster feel that e-HRM is able to contribute in their day to day operations positively. 25% are neutral, 15% think otherwise. So majority of respondents are positive about e-HRM contribution on day to day basis.

- Cluster 2: Questions 1-5 based on People Management/Productivity

Cluster 2	% Of Respondents scoring 1	% Of Respondents scoring 2	% Of Respondents scoring 3	% Of Respondents scoring 4	% Of Respondents scoring 5
Q1	19.33	30.00	30.67	16.67	3.33
Q2	18.67	34.00	30.00	15.33	2.00

Q3	16.00	36.66	28.67	14.67	4.00
Q4	24.00	32.67	26.00	13.33	4.00
Q5	24.66	38.00	22.67	12.00	2.67

Table 5. Cluster Analysis - People Management/Productivity Perspective; Frequency Distribution (n = 150)

Interpretation:

55% of the respondents in this cluster agree that e-HRM helps in enhancing their productivity and efficiency and e-recruitment helps them to reduce recruitment cost, makes the recruitment process faster and helps organisations reach a wider pool of talent, 27% are neutral, 18% feel e-HRM does not facilitate any improvements in their productivity and efficiency nor it has any positive impact on recruitment as a process.

- Cluster 3: Questions 1-5 based on Strategic Capability

Cluster 3	% Of Respondents scoring 1	% Of Respondents scoring 2	% Of Respondents scoring 3	% Of Respondents scoring 4	% Of Respondents scoring 5
Q1	14.66	36.67	28.67	16.00	4.00
Q2	13.33	40.00	31.33	8.67	6.67
Q3	13.33	44.67	28.67	10.00	3.33
Q4	18.67	44.67	19.33	10.00	7.33
Q5	18.67	40.00	25.33	9.33	6.67

Table 6. Cluster Analysis - Strategic Perspective; Frequency Distribution (n = 150)

Interpretation:

57% of respondents in this cluster agree that e-HRM contributes in enhancing the strategic capabilities relating to HR of an organisation, 27% are neutral and 16% into disagreement. If we go through the detailed question wise analysis in this cluster we will find that quite a few areas like brand equity, creating inventory of hypo's and enhancing organisations strategic HR, the response is quite encouraging with 60% of respondents answering positively.

- Cluster 4: Questions 1 to 5 based on Social Collaboration

Cluster 4	% Of Respondents scoring 1	% Of Respondents scoring 2	% Of Respondents scoring 3	% Of Respondents scoring 4	% Of Respondents scoring 5
Q1	19.33	38.67	25.33	10.00	6.67
Q2	18.00	47.33	20.00	10.00	4.67
Q3	20.00	42.67	25.33	8.00	4.00
Q4	22.00	42.00	22.67	8.00	5.33
Q5	20.67	42.00	18.67	11.33	7.33

Table 7. Cluster Analysis - Social collaboration perspective; Frequency Distribution (n = 150)

Interpretation:

62% of the respondents feel that e-HRM can be used as a social collaborative tool to help identify training needs, build knowledge sharing platform and enhance learning and development programs. In todays environment organisations can tap on untapped talent pool within organisation and outside organisation by merging e-HRM and social media platforms.

7. SECTOR WISE DATA ANALYSIS AND INTERPRETATION

Sector	% of total responses scoring 1	% of total responses scoring 2	% of total responses scoring 3	% of total responses scoring 4	% of total responses scoring 5	Total responses
IT and ITES	20.73	41.09	24.00	9.45	4.73	275
BFSI	19.09	35.45	33.64	10.91	0.91	110
Service (Others)	17.56	39.02	24.88	13.17	5.37	205
Manufacturing, Engineering services, Construction	25.52	41.38	19.31	11.72	2.07	145
Government	20.00	40.00	33.33	6.67	0	15

Table 8. Sector Wise Analysis - Cluster HR Operations

- Sector - IT and ITES: Questions 1 to 5 Cluster - HR Operations
  Interpretation:
  This sector is the highest in the usage of e-HRM, With around 62% of the employees in this sector agreeing to the fact that there is a direct impact of e-HRM on the operational level activities, 24% have stayed neutral and less than 14% feel that e-HRM has no impact at all.

- Sector - BFSI: Questions 1 to 5 Cluster - HR Operations
  Interpretation:
  More than half of the respondents (54.54%) are in agreement of the impact of e-HRM on operations level however 33.64 are neutral which is quite high in comparison to other sectors in this cluster, this could be due to the fact that this whole sector is at a stage where technology has been accepted and there is shift from traditional paper based records to the new electronic way and around 11.82% feel that there is no impact.

- Sector - Services (Others): Questions 1 to 5 Cluster - HR Operations
  Interpretation:
  56.58% respondents from this sector agree to the positive impact created by e-HRM on operational level, 24.88% are neutral and 18.54% think otherwise.This sector is the second largest in providing employement and there is a positive sign of technology being used in providing service to internal as well as external customers.

- Sector - Manufacturing, Engeneering services, Construction: Questions 1 to 5 Cluster - HR Operations
  Interpretation:
  The highest acceptance of positive operational impact of e-HRM is from this sector (66.90%). Clearly manufacturing, engeeneering and construction sectors are inducting electronic mediums to manage their employees and make sure they remain competitive.

- Sector - Government: Questions 1 to 5 Cluster - HR Operations
  Interpretation:
  Although with only 3 responses, 60% respondents gave a positive reponse towards e-HRM being the reason for operational benefits.

8. HYPOTHESIS TESTING

Null Hypothesis	A		B		C		D
Sectors	Sum of Squares Within the Group		Sum of Squares Within the Group		Sum of Squares Within the Group		Sum of Squares Within the Group
BFSI Government IT and ITES Services (Others) Manufacturing	11.88 0.99 43.61 32.97 19.37		24.99 1.28 41.75 24.89 16.41		24.11 0.99 40.52 37.38 15.00		23.03 1.15 35.97 41.75 14.05
Total Sum of Squares	108.82		109.32		118.00		115.95
Sum of squares between the groups= (Total sum of Squares - Sum of Squares within the group) Degrees of freedom(d2) Degrees of freedom(d1)	1.23 4.00 146 (assumed to be infinite)		5.07 4.00 146 (assumed to be infinite)		2.86 4.00 146 (assumed to be infinite)		5.36 4.00 146 (assumed to be infinite)
F statistic F(4,infinite)	3222.012287 4.00		786.2309769 4.00		1505.614364 4.00		790.2074493 4.00

Result : Null Hypotheses Rejected.

Working:

SSW= This represents the sum of squares of the deviations from the group mean within the group.

Deviation is the difference between the value and the mean of the group

(groups imply all the 5 sectors)

SST= This represents the sum of squares of the deviations from the population mean in the whole population sample(150 responses)

Now SST= SSB+SSW

therefore we can evaluate SSB by the formula SSB=SST-SSW

9. FINDINGS

- 93.33% of respondents have 3 years or more experience.56.67% of respondents are in managerial roles having people management responsibilities, which implies respondent profile is relevant to the topic under study.
- 60% of the respondents in HR operational cluster feel positive about e-HRMs contribution on day to day basis.
- 55% of the respondents in People management/Productivity cluster agree that e-HRM helps in enhancing their productivity and efficiency and e-recruitment helps

them to reduce recruitment cost, makes the recruitment process faster and helps organsations reach a wider pool of talent.

- 57% of respondents in strategic cluster agree that e-HRM contributes in enhancing the strategic capabilities relating to HR of an organisation,If we go through the detailed question wise analysis in this cluster we will find that quite a few areas like brand equity, creating inventory of hypo's and enhancing organisations strategic HR, the response is quite encouraging with 60% of respondents answering positively.
- 62% of the respondents feel that e-HRM can be used as a social collaborative tool to help identify training needs, build knowledge sharing platform and enhance learning and development programs. In todays environment organisations can tap on untapped talent pool within organisation and outside organisation by merging e-HRM and social media platforms.
- IT and ITES sector is the highest in the usage of e-HRM, with around 62% of the employees in this sector agreeing to the fact that there is a direct impact of e-HRM on the operational level activities.
- More than half of the respondents (54.54%) are in agreement of the impact of e-HRM on operations level, however 33.64 are neutral which is quite high in comparison to other sectors in BFSI cluster, this could be due to the fact that this whole BFSI is at a stage where technology has been accepted and there is shift from traditional paper based records to the new electronic way.
- Services (Others) sector is the second largest in providing employement (from 150 responses) and there is a positive sign of technology being used in providing service to internal as well as external customers.
- 66% is highest acceptance of positive operational impact of e-HRM is from this sector. Clearly manufacturing, engeeneering and construction sectors are inducting electronic mediums to manage their employees and make sure they remain competitive.

10. CONCLUSION

Reaching to a level where organizations can leverage benefits and think about different avenues to expand in today’s ever changing and competitive world is a daunting task. Human Resources have emerged to be a competitive advantage as well as the most challenging aspect in an organisation. It is essential for organizations to keep up with the changes in the environment and meet up with the needs of consumers. It is therefore necessary to reduce cost and enhance productivity and efficiency.

e-HRM helps both individuals and organisations to interact with each other regularly and more efficiently from anywhere.

Use of e-HRM has paid rich dividends in corporations overseas; particularly its tangible and intangible effects can be seen in process improvements; productivity, efficiency and costs; It holds promising potential for Indian organisations as well. Findings of our study based on representative sample across the sectors; data analysis, interpretation and hypotheses formulation and testing, vindicates our stand.

Annexure 1
Questionnaire

Organizational value creation using Electronic Human Resource Management (e - HRM)					
e-HRM is the application of Information Technology (IT) for Human Resource (HR) practices which enables easy interactions between employees and employers. It stores information such as company payroll, employee data, training and recruitment. It is a management concept that utilizes IT to carry out HR functions.					
Section 1 - Personal Information					
Experience	0 - 2.9 years	3 - 5 years	Above 5 years		
Role	Executive	Junior Management	Middle Management	Senior Management	
Gender	Female	Male			
Industry					
Instructions for Section 2 - 5	Please assess each of the following statements. The following statements refer to the company where you are currently working or worked before. 1. Strongly agree ; 2. Agree ; 3.Neither Agree nor Disagree ; 4. Strongly Disagree ; 5. Disagree.				
e - HRM helps me to perform my routine day to day work effectively.	1	2	3	4	5
e - HRM helps the organization in quick self service in context of resolving my queries	1	2	3	4	5
e - HRM helps in decreasing administrative costs for the organization.	1	2	3	4	5
e - HRM reduces the need to outsource any function of the organization.	1	2	3	4	5
e - HRM helps me to keep updated with any organizational policies and procedures changes in my organization	1	2	3	4	5
Section 3					
Recruitment cost can be reduced by using e - HRM.	1	2	3	4	5

e - HRM (e - recruitment) helps in casting the net wider in creating bigger pipe line of potential candidates.	1	2	3	4	5
e - HRM helps to get quick turn around time for recruiting candidates	1	2	3	4	5
e - HRM enables higher level of productivity.	1	2	3	4	5
e - HRM facilitates efficient performance management process.	1	2	3	4	5
Section 4					
e - HRM enables quick decision making in relation to all HRM matters.	1	2	3	4	5
e - HRM helps in identifying competencies required at various levels in the organization.	1	2	3	4	5
e - HRM enables enhancement of organization's internal and external Employer Brand Equity (i.e Employee Value Proposition)	1	2	3	4	5
e - HRM helps in updating the Talent inventory to facilitate identification of high potential employee.	1	2	3	4	5
e - HRM helps in enhancing organization's strategic HR capabilty.	1	2	3	4	5
Section 5					
e - HRM (Learning and development module) helps in identifying learning	1	2	3	4	5

needs of individuals in the organization.					
e - HRM helps to identify suitable training programs to enhance individuals competencies.	1	2	3	4	5
e - HRM can help in creating communities of practice (knowledge sharing platform).	1	2	3	4	5
e - HRM has a potential to be used as a social collaborative tool by integrating itself with various social media platforms.	1	2	3	4	5
Merging social collaborative tools will find increasing applications in e - HRM in times to come as compared to traditional e - HRM tools.	1	2	3	4	5

Thank You

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CONSUMER REACTION TOWARDS THE MARKETING COMMUNICATION IN JORHAT, NORTHEAST INDIA

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ABSTRACT

Marketing communication is the way of connecting with consumers offering variety of products and convince them to visit the store for buying. To meet the changing needs Big Bazaar started types of promotional campaign to attract customers. The aim of study is to examine the schemes offered by Big Bazaar. Secondly, recognizing the peak time of customer visits in the store. In addition, to identify customer response on the services offered by the customer service desk of Big Bazaar. An empirical research was undertaken among 50 customers who visited the Big Bazaar outlet in Jorhat city selected using convenience sampling technique. The collected data were then coded, calculated and analysed using statistical tools to get the conclusions. The study highlighted several schemes namely, cheapest day in a year; give old and get new scheme; cheapest day of the week; mega saving. The research enunciates that majority respondents prefer to visit Big Bazaar during afternoon to evening and 48 percent respondents were satisfied averagely from customer service desk. Besides, it can be concluded that there is no significant relationship between the time of customer visit and time spend; also income and the frequency of customer visit to Big Bazaar.

KEYWORDS: Marketing Schemes, Peak time, Customer Seva Desk, Big Bazaar, Jorhat

1. INTRODUCTION

The Marketing communication is the process of making consumer understands about a particular company's offering. The marketing communication is the intention that company try to inform, persuade and remind consumer either direct or indirect about the products and brands that they sell (Kotler and Keller, 2006). Through marketing communication companies builds and maintains a connection with consumers. The marketing communication mix consists of five major modes of communication such as advertising, event and experiences, public relations and publicity, direct marketing, and personal selling.

"The process of marketing communication (promotion) takes consumers through three stages of responses: perception, attitude and behavior stages" Ace (2001) as cited in Alcheva et al. (2009, p.22), Thus, to reach the targeted consumers, it is important for any company to encourage consumers to perceive the message and respond affectively (Evans et al., 2009).

It is well know that the product features and elements affect the consumers' perception. Consumer's perception of products is influenced by its physical characteristics alone and in some cases, by the product attributes which are marketing communications based, derived from brand images and brand differentiation (Allison and Uhl, 1964; Foxall and Goldsmith, 2003). Price, as another component of integrated marketing communication (IMC) has direct implications on the perception. In addition, it has been seen that for many products consumer judges the quality by price, even consumers' subjective of price are not fully explained (Monroe, 1973; Kamen and Toman, 1970; Elliot and Cameron, 1994). Consumer perception is also related to the distribution, including type of distribution (direct or indirect; intensive, selective or exclusive) and store characteristics (Berry, 1969), namely location, design, product assortment, services and personnel. Method of distribution must be consistent with brand image and price (Arens and Schaefer, 2007). All IMC components transmit to consumers various information and support the consumer learning process for purchase and consumption knowledge. Learning process permanently evolves and changes as an effect of newly acquired knowledge gained from reading, observation, discussions and actual experience. Forming or changing attitude is one of the most important goals of IMC, being influenced by product, price, distribution and marketing communications, but also resulting from direct or vicarious experience that an individual has with the attitude object (Fazio, Sanbonmatsu, Powell and Kardes, 1986). The complex process of motivation has the force to activate behaviour, providing in the same time purpose and direction to that behaviour (Hawkins and Mothersbaugh, 2009). IMC could globally influence motivation, especially through marketing communications component. Therefore, the present study is an attempt to analyse the marketing communication programs including promotional campaign of Big Bazaar and to uncover the different facets of consumer visits to Big Bazaar.

2. OBJECTIVES

1. To examine the schemes offered by Big Bazaar to the customers.
2. To identify the peak time of customer visits to Big Bazaar Jorhat.
3. To determine the customer response towards the services offered by "Customer Seva Desk" in Big Bazaar Jorhat.
4. To provide recommendation for improvement of services in Big Bazaar Jorhat.

3. METHODOLOGY

The study is an empirical research and is carried out using survey method. The questions were presented in mostly close-ended style with self-structured questions. Primary data were collected from the customers who visited Big Bazaar, Jorhat. The study applies convenience sampling technique and 90 questionnaires were printed and distributed to respondents. Questionnaires filled by respondents were 60 in numbers and out of which 50 were completely filled. The relevant secondary data has been collected from the journals, websites for building a conceptual base for conducting the research. The analysis is done in a simple manner without using any jargons. The collected data was then coded, calculated and analysed using the simple statistical tools such as, percentages, and Phi and Cramer's V test methods for hypotheses to get the conclusions. Tables have been used to present survey results so that output could be easily understood. The hypotheses are as follows:

H01: There is no significant relationship between the visit time of the day and time spend on visit to Big Bazaar.
H02: There is no significant relationship between income and the frequency of visit to Big Bazaar.

4. ANALYSIS AND FINDINGS

90 percent customers are male (see Table 1); 82 percent customers fall in the age group of 20 to 25 years (see Table 2); and 50 percent customers are in the income group of INR 10,000 to 15,000 followed by 36 percent customers are in the income range of INR 15,000 to 20,000 (see Table 3) who visits Big Bazaar.

Schemes and Innovations

Big Bazaar offers a wide range of product category namely, fashion and apparel, food products, leisure & entertainment, general merchandise, furniture, electronics, books, fast food. It offers an opportunity to enjoy better shopping experience and discount offers to all customers with economy pricing model. Big Bazaar brings lot of innovation in retail shopping sector by bringing attractive promotional programs such as 'Sabse Sasta Din' , 'Purana do aur naya lo' , 'Hafte Ka Sabse Sasta Din' , 'MahaBachat' , 'The Great Exchange Offer'.

'Sabse Sasta Din'

The scheme 'Sabse Sasta Din' (Cheapest Day) was introduced in the year 2005. The schemes key focus is to earn maximum revenue in a single day i.e., Republic day holiday. It attracts the customers across the country in large numbers to buy household items at cheaper rates from Big Bazaar outlet. The scheme normally continued for a period of 3 to 5 days in the outlets.

'Purana do aur naya lo'

Another innovation in Big Bazaar scheme is 'Purana do aur naya lo' (give old and get new). Customers were asked to bring and sell old products namely, cloths, utensils, electronic devices and other household items in exchange of discount coupons. The coupons were issued ranging in a price category from INR 100, INR 50 with certain preconditions associated with it.

'Hafte Ka Sabse Sasta Din'

Wednesday Bazaar is known as cheapest day of the week scheme. Using the 'Hafte Ka Sabse Sasta Din' (Cheapest Day of the Week) Big Bazaar promoted the concept of Wednesday Bazaar in the outlets. The key motive of this scheme is to give homemakers the power to save the most and to increase customers' presence on Wednesdays.

'MahaBachat'

'MahaBachat' (Mega Saving) scheme was introduced in 2006 as a single day campaign with attractive promotional offers across the outlets. Gradually, it has become a six-day biannual campaign. This campaign includes several attractive offers in all the value formats including Big Bazaar, Food Bazaar, Electronic Bazaar and Furniture Bazaar.

'The Great Exchange Offer'

'The Great Exchange Offer' was introduced in Big Bazaar outlets in the year 2009. This scheme allows customers to exchange their old goods for Big Bazaar coupons, which can be redeemed later for buying brand new goods from Big Bazaar outlets across the nation.

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Peak Time of Visit

More number of customers found in big bazaar during evening time than day time. 42 percent of the respondents or customers prefer to visit big bazaar in 3pm-6pm. 30 percent respondents prefer visiting in between 1pm to 3pm. Only 12 percent of people tend to visit big bazaar during 10am-1pm followed by 16 percent of people visit big bazaar during 6pm-9pm (See Table 4). Big bazaar shall provide some special offerings during day time to increase customers' footfall on the store.

Factors for Visit and Time Spend

Customers visited Big Bazaar for various available features. 26 percent of the respondents visit for product quality, 20 percent visit for ambience, 18 percent for product variety, 16 percent for price, 12 percent for service and remaining 8 percent for convenience (See Table 5). Majority of the customers spend 60 to 90 minutes and 90 to 120 minutes in the Big Bazaar outlet. 20 percent respondents spend between 30 to 60 minutes, followed by 16 percent spends more than 120 minutes and 8 percent spends less than 30 minutes (See Table 6).

Satisfaction of Services offered by Customer Sewa Desk

Comprising the category of highly satisfied and satisfied, 26 percent of respondents were satisfied, followed by average satisfaction level of customer is 48 percent with the services offered by Customer Sewa Desk (CSD). However, level of dissatisfaction is also present with the customers having 26 percent were dissatisfied with services offered by CSD (See Table 7).

Use of Facilities

Big Bazaar is providing several types of facilities to the customers such as membership card, gift vouchers, T24 mobile currency and payback card. But majority of the customers were making use of payback card (60 percent of customers) at Big Bazaar (See Table 8). Maximum numbers of customers are ready to recommend Big Bazaar for shopping to others (See Table 9).

Test of Hypotheses

Hypothesis 1(H01): There is no significant relationship between the visit time of the day and time spend on visit to Big Bazaar.
Phi and Cramer's V are both tests of the strength of association and indicates that strength of association between the variables is relatively weak. The result of the significance test for this

relationship is 0.608, which is greater than 0.05. So the relationship between these two variables is not statistically significant. The null hypothesis is accepted. Therefore, it is concluded that there is no significant relationship between the visit time of the day and time spend on visit to Big Bazaar by a customer (see Table 10).

Hypothesis (H02): There is no significant relationship between income and the frequency of visit to Big Bazaar.
Result from the hypothesis test highlights that significance test for this relationship is greater than 0.001 i.e. 0.054 which indicates about weak relationship between these two variables. Hence, null hypothesis is accepted. As a result, it is concluded that there is no significant relationship between income and the frequency of visit to Big Bazaar (see Table 11).

5. CONCLUSION AND FUTURE DIRECTION OF RESEARCH

Marketing communication has play a vital role in forming consumer behaviour. Big Bazaar have wide range of products and adopted different kind of communication strategies to target the consumers. It offers a shopping experience to the customers and attracts with its innovative promotional programs such as ‘Sabse Sasta Din’, ‘Purana do aur naya lo’, ‘Hafte Ka Sabse Sasta Din’, ‘MahaBachat’, ‘The Great Exchange Offer’. Research highlights that majority of the customers visits Big Bazaar between 3PM – 6PM and the reasons for visiting are product quality, ambience of the store, product variety followed by price of the product. In addition, majority of customers stayed in outlet for 1 hour to 1½ hours and 1½ hours to 2 hours. Research enunciates that half of the customers’ level of satisfaction were average from customer sewa desk; while more than half of the customers were using the payback card at Big Bazaar. Further, research has proved that there is no relationship between the visit time and time spend on a visit to Big Bazaar by a customer; and income and frequency of visit to Big Bazaar.

Limitations of this study include a few commonly associated problems of sampling. This research is subject to some limitations which may provide fruitful avenues for future research. Firstly, certain limitations may arise from sample selection and some respondents may have inadequate knowledge on the subject matter. This is another area in which research could be improved and extended. Secondly, some of the respondents did not respond to queries fully and information was withheld. Sometimes the respondents were reluctant to give information about their usage and demographic profile.

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TABLES

Table 1: Gender

	Percentage
Male	90
Female	10

Source: Primary Data

Table 2: Age Group

	Percentage
Below 20 Years	6
20 to 25 Years	82
25 to 30 Years	12

Source: Primary Data

Table 3: Income

	Percentage
Less than INR 10000	6
INR 10000 to 15000	50
INR 15000 to 20000	36
More than INR 20000	8

Source: Primary Data

Table 4: Preferred time of customer visit

Time	Percentage
10am-1pm	12
1pm-3pm	30
3pm-6pm	42
6pm-9pm	16

Source: Primary Data

Table 5: Factor encourages customer to visit

Factors	Percentage
Price	16
Service	12
Ambience	20
Product Variety	18
Product Quality	26
Convenience	8

Source: Primary Data

Table 6: Time spends in Big Bazaar

Time	Percentage
Less than ½ hour	8
½ hour to 1 hour	20
1 hour to 1 ½ hours	28
1 ½ hours to 2 hours	28
More than 2 hours	16

Source: Primary Data

Table 7: Customer response towards the services of CSD

Customers' Response	Percentage
Highly Satisfied	4
Satisfied	22
Average	48
Dissatisfied	18
Highly Dissatisfied	8

Source: Primary Data

Table 8: Facilities customers use in Big Bazaar

Facilities	Percentage
Membership Card	12
Payback Cards	60
Gift Vouchers	20

T24 Mobile Currency Offer	8

Source: Primary Data

Table 9: Customer recommend to others

Customers` Opinion	Percentage
Yes	56
No	30
Don`t know	14

Source: Primary Data

Table 10: Preferred time of customer visit and time spend on a visit

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.449	.608
	Cramer's V	.259	.608
N of Valid Cases		50	

Source: Primary Data

Table 11: Income and frequency of customer visit

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.578	.054
	Cramer's V	.334	.054
N of Valid Cases		50	

Source: Primary Data

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DESIGNS CAN DISRUPT BUSINESS AND TRANSFORM MARKETS – A CRITICAL ANALYSIS CONCERNING COMPETITIVE MARKETING ADVANTAGE OF COMPANIES

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ABSTRACT

The obvious aim of most businesses is to earn superiority in the marketplace by creating and riding on a competitive advantage. This competitive advantage could be innovation in product quality and features, consumer friendly Price, wide Distribution Channel, etc. Differentiation remains the common factor in most, but differentiating with Design as an Intellectual Property Right (IPR) is still in an infancy state in India. Certain foreign companies have earned global domination primarily on the singular aspect of Design strategy, the same however is not prevalent among Indian companies with the objective of earning competitive marketing advantage. This paper is an outcome of a research done by the author[1] on Home appliances business of Indian Consumer Durable industry to learn the seriousness in adoption of Design thinking among companies to create superior brand identity and earn competitive marketing advantage. Five companies in the sector were investigated along with few external design agencies and some retailers, to understand design thinking and design based strategy to create and earn competitive advantage. Authors have analyzed whether companies are aware about design broad meaning and apply design thinking in their organization's strategic decisions to create a superior Brand, till what extent, involvement of external design agencies as partners in strategy and even the voice of the retailer as the sales partner of the company's products concerning design thinking and strategy formulation. The results revealed that Design based thinking and Design based marketing strategy can disrupt business, transform markets for companies in India if learnt, adopted and practiced in the organization across all levels. As an outcome of the research, this paper discusses how design can help companies to develop differentiated products, services and systems which consumers need and desire for, which would enable building strong brands and thereby earn competitive advantage in the market place.

KEYWORDS: Design, IPR, India, Marketing strategy, Brand, Competitive Advantage

1. INTRODUCTION

Design is that creation of human intellect which is appealing to the eye and attracts attention. This design when applied to a commercial product becomes important and distinct due to its aesthetic value. However design can be of two types: aesthetic and functional. Aesthetic factor satisfies the appealing/attraction concern of a consumer whereas the functional factor would satisfy the ease of product usage concern of a consumer. Some consumers may simply get attracted to a design which is odd/unusual. A product can sell better than the other due to any of the above design factors that it might be having which attract more consumers. Considering Intellectual Property Rights in Design the importance is only credited to the aesthetic factor of that design and not the functional aspect. This aesthetic factor alone in product design can build brands and create competitive advantage for organizations.

The Home Appliances business of the Indian Consumer durable industry is an important sector in the country with companies having attained high volume growths and along with new entrants in the field has revolutionised the way business has been happening with the introduction of new product categories. But this business faces revenue loss of approximately Rs.12000 Crores due to counterfeit trade majorly showing rampant infringements of IPR *(ASSOCHAM, 2014).* It was found out in a larger research work by the Author[1] that in the said industry of India, among the infringed IPRs majority share is of Designs. Hence, this attracted attention to investigate it resulting into this paper.

The Designs Act, 2000 and the Designs Rules, 2001 presently govern the design law in India. The essential purpose of this Act is to promote and protect the design element of industrial production and also intended to promote innovative activity in the field of industries.

2. DEFINITION OF IMPORTANT TERMS

According to section 2 (d) of the Design Act, 2000:
Design means only the features of shape, configuration, pattern, ornamentation or composition of lines or colours applied to any article, whether in two or three dimensional or in both forms. This may be applied by any industrial process or means whether manual, mechanical or chemical, separate or combined process, which in the finished article appeals to and judged solely by the eye, but does not include any mode or principle of construction or anything which is mere mechanical device and does not include any trade mark as defined in the Trade Marks Act or any artistic work as defined in section 2(c) of the Copyright Act, 1957

Design is a decorative pattern –*Oxford Dictionary*

Intellectual property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce. – *World Intellectual Property Organization (WIPO)*

Intellectual Property Rights (IPR) are the legal rights governing the use of creations of the human mind. It consists of a bundle of rights in relation to a certain material object created by the intellectual capabilities of the creator who only has the right to recreate it.

Within the scope of this research, the term "counterfeit" is used in its broadest sense and it encompasses any manufacturing of a product which so closely imitates the appearance of the product of another to mislead a consumer that it is the product of another. Hence, it may include trademark, design as well as copyright infringements. Counterfeiting is ultimately an infringement of the legal rights of an owner of intellectual property.

Home Appliances in the scope of this paper includes the products like electric fans, electric irons, mixer-grinders, juicers, food-processors, water filters/ purifiers, induction heaters, electric kettles, room heaters, room coolers, domestic lamps & lighting, etc.

3. UNDERSTANDING DESIGN

There are six main features of a design:

1) Shape
2) Configuration
3) Pattern
4) Ornament
5) Composition of lines
6) Colours

The term shape and configuration refers to form of an article and is three dimensional in nature. Pattern and ornament are two dimensional decorative features ordinarily applied to the surface of articles as in the case of textile. Pictures or devices printed on product packages are also considered as industrial designs. Composition of lines and colours are applied to the surface of a product. The author of an industrial design is the one who conceived and created the design for the first time and produced it in a visible form whether by drawing or making a model.

The design is distinguishable from a Patent, Copyright and Trademark, even if all of them may appear to be resembling at a certain time. The design is primarily for its appearance of the shape and is registered as an industrial design. A trademark will be the label attached to the design to give it an identifiable name. Patent will be on the novel product on which this design might have got applied. The right conferred by registration of a design is called as the 'copyright', but it has no resemblance to the copyright covered under the Copyright Act. Design registration gives a monopoly of use like that in Patent. Copyright in an industrial design or product design is governed by the Designs Act, 2000. If a design is registered under this act, then it is not eligible for protection under the Copyright Act even though it may be an original artistic work. If the design is not registered under Designs Act, 2000 then Copyright will subsist on it under the Copyright Act, 1957, but that will cease to exist if the design is reproduced by the owner for more than 50 times by any industrial process.

The registration of a design confers upon the registered proprietor the exclusive right for applying the design to some product in the class in which the design has been registered. A registered proprietor of the design is entitled to a better protection of his intellectual property. One can sue for infringement, if his right is infringed by any person and can licence or sell his design as legal property for a consideration or royalty. Registration initially ensures this right for ten years from the date of registration. It can be renewed for further five years. If the fees for extension/renewal is not paid for further period of registration within the time limit of initial registration, then this design right will cease to exist. However, there is provision existing for restoring of a lapsed design if the application for restoration is filed within one year from the date of cessation.

Designs which are functional in nature are not registrable under Designs Act. Thus if a designer makes an article in certain shape not in in order to make it appealing to the consumers' eye, but for making the product perform in for a particular functional requirement, it will not be registered under the Designs Act. The need to protect new designs was felt in India as early as 18^{th} century where in the legislation enacted the Patterns and Designs Protection Act, 1872 for the first time. The Act provided the inventors of new patterns and design in India, the exclusive privilege of making, selling and using the invention in Indian or authorizing others to do so for a small time period. This Act was followed by the Inventions and Designs Act, 1888 which consolidated and amended the law relating to the protection of inventions and designs and contained a provision relating to design in a separate part. The Act of 1888 was replaced by the British Patent and Designs Act, 1907 which became the basis of the Indian Patent and Designs Act, 1911. The Patents Act, 1970 repealed the patent provisions of the 1911 Act. The Designs Act, 2000 repealed the Designs Act, 1911. The Act came into force on 11 May, 2001. *(Sarkar, 2016)*

Around the world companies are using industrial design and other design disciplines to gain an advantage in the market place through superior customer experience. Companies use Industrial Design to differentiate from competitors. It helps companies to create more competitive products that fit with the needs of the target customers and communicate desired brand values. As a result Industrial Design improves business performance in all key metrics. Positive impacts include increased product utility, usability and user experience, better environmental sustainability, differentiation in the market place and improved business performance. Due to this wide range of benefits, design has been recognized as one of the few means left for companies to gain a competitive advantage regardless of the competitive strategy of cost, differentiation, or market focus, pursued by companies.

4. DESIGN BASED THINKING AND STRATEGY ADOPTION IN HOME APPLIANCES BUSINESS OF INDIAN CONSUMER DURABLE INDUSTRY

Design thinking has been explained as synthetic and abductive thinking aligning with ways of approaching wicked problems as applying design thinking to whole organizations (*Martin 2009, Brown 2009).* Concept of design thinking is thinking like designers *(Brown 2008, 2009).* Literature studies on the subject also revealed that there has been different features and methods for design thinking. Brown *(2008, 2009)* emphasized on prototyping and user-centered approach in *industrial design*, whereas, *Neumeier (2009)* highlighted agility, collaboration, and approaches to wicked problems which comes closer to branding. Design is the bridge between the consumer questing for the experiential and the company trying to meet that appetite with an offer that presents the new in a user-friendly and innovative way. It is at the core of the knowledge economy, and one of the coping stones of an innovation system *(Hutton 2010).* While referring the work done by *Kumar and Whitney* (2007), we found them stating "Consumers have so much choice that they have developed ways of shopping, managing family life, working, traveling, keeping healthy, and other modes of living that are almost impossible to predict. In the age of mass production and mass markets, consumers' choices could be predicted in part because they had so few. We have moved from a scarcity in production ability and adequate information about consumers to the polar opposite: now we possess a deep knowledge of how to make things and an inadequate understanding of how people are living their lives. This leaves corporate leaders knowing how to make anything but not knowing what it is they should make". Based on their concept of the above said Knowledge–Innovation Gap, Author[1] investigated the Design Thinking Gap in the Home Appliances industry and found that, there is a considerable design thinking gap after studying the companies and their functions mainly in the departments of Marketing and Design & Development and their co-ordination to work together in creating innovation in the organization and delivering unique products in the market. This Design thinking gap has been illustrated as below in Figure1. This gap is substantiated in the research results mentioned ahead.

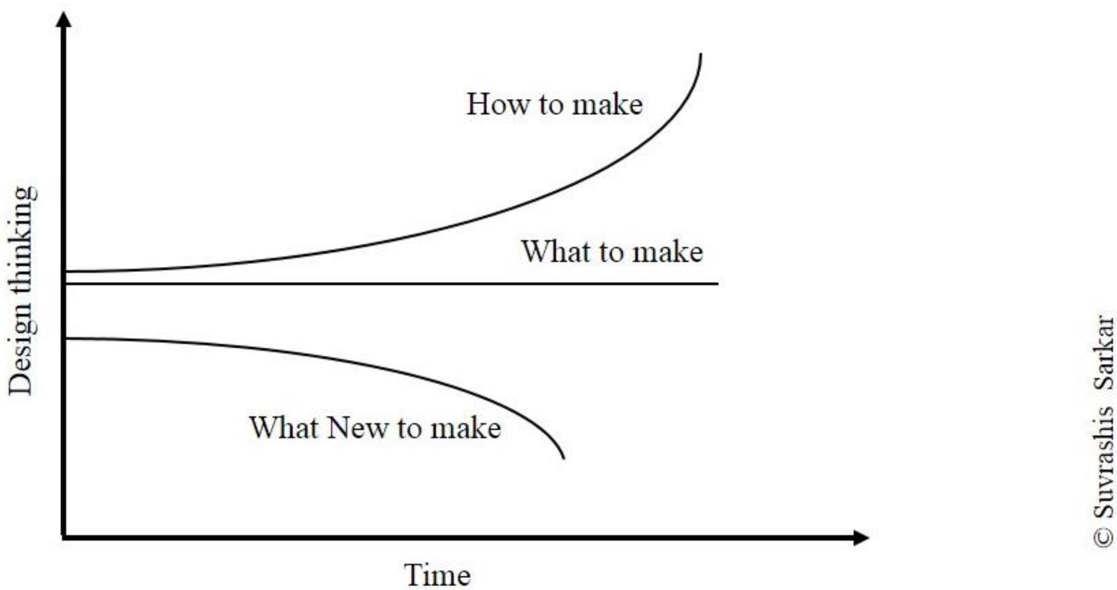


Figure 1: Design Thinking Gap in the Home appliances business

The organizations, over several decades of business presence, have mastered what to make. Based on the excellent market knowledge what will sell in the market to generate returns on investment and gain market-share. Over the years these products also have become basic necessities of every consumer household and therefore got commoditized. The knowledge of how to make them is ever growing more so based upon the technical knowledge and manufacturing styles based on cost variations in plastic, copper, steel, aluminum along with varying tax structures, etc. but there is still a gap between very prevalent in organizations about what to make and how to make in adoption of latest technologies. The knowledge of what new to make as innovative products and offer in the market seems be not as per advancing time primarily due to lack of design thinking at levels in the organization including marketing and therefore has a huge gap between how to make and what new to make. It has been observed in these companies that mostly new design is randomly created by the in-house design team and sales team is asked if the new design will sell and in how much quantity. If the sales team feels that the new design will be an unsure experiment the innovation can get killed but if the sales team feel that the new design has the potential to sell, it gets accepted. Interesting to note is that this "feeling" of the sales team of a new design to be hit or go flop most often depends upon their market knowledge from interacting with the retailers. It also has been observed that major retailers selling the companies' products are called to participate in the discussion of new products development and so what happens is as per the choice and interest of the retailers as sales partners of a company's innovation.

Problems associated with this technique of selecting "what new to make" is many times a breakthrough innovation gets killed before birth due to lack of design thinking in the partners of selection process. Imagine if mobile phone sellers were to be consulted before creating the iconic Apple i-phone or if electronics retailers were consulted before creating the Samsung Curved TV, it is possible that they would not have seen the light of day because what is new and different becomes difficult to sell from the conventional and complacent approach. It actually takes a great deal of design thinking at all levels in the organization and integration of marketing and design functions as departments in a "hand in glove" relationship to make the design innovation as a strategic marketing approach in business to attain competitive advantage.

Designs can act as either brand image builders, or sales volume builders or as both depending upon how that company has been able to leverage the design thinking the right design based strategy to market the products with an objective to achieve competitive advantage. This can be referred with several examples from the automobile industry if considered as a benchmark to draw inspiration of design learning.

The home appliances business in India is very price sensitive all across the country and companies and retailers together are actually in a "hand in glove" relationship to play safe and earn the valuable return on investment and top line figures. A technical innovation or simple aesthetic design innovation attracts higher cost and corresponding risk of unacceptability in the consumer market; hence partnership of retailers is greatly valued by companies in short listing design innovations. While analyzing the fate of an accepted design innovation with agreement of all concerned parties, it was also observed that, to take care of the manufacturing cost and logistic sourcing cost benefit, these companies give these design to their empanelled vendors for product manufacturing. This point of manufacturing most often becomes the source of counterfeiting as this vendor mostly is a product sourcing point of multiple companies who are competitors of each other. This vendor could be in India or in a foreign nation (mostly China). Accordingly so we refer to our postulated list of counterfeiting reasons in this industry.

Counterfeiting in the consumer durable industry happens in the following four ways:

(1) Within India, Company A impersonates / duplicates the products of Company B and sells it in the local market. (Organized market)

(2) Within India, an unknown company impersonates / duplicates the products of Company A or B and sells it in the local market. (Gray market)

(3) Company A imports products into India from Company X of different country which duplicates well known international products.

(4) Company X from a foreign country is an outsourced manufacturer for both Company A and B of India and it dilutes one product design for several companies, thereby releasing counterfeits in the market

(Sarkar & D'Silva 2016)

Hence, keeping the central objective in mind, the Design thinking and Design based strategy to achieve competitive marketing advantage of companies in the home appliances business of India had to be investigated with a proper research by investigating the several partners concerned. The research was conducted with the methodology as described below:

OBJECTIVE OF THE RESEARCH:
To investigate and understand design based thinking and strategy as marketing function initiative to create competitive advantage for home appliance companies in India.

RESEARCH METHODOLOGY:
Five reputed companies in the electrical home appliance industry were studied, three reputed individual design agencies were studied as partners in strategy, and 1000 retailers spread across the country as sales partner of the company's products were also studied for their contribution concerning design thinking and design based strategy formulation.

SAMPLING: Sampling of the companies were purposive considering clear intentions in studying those specific companies in the industry. Top three companies as per market ranking were selected, one company who has exponentially grown with design based strategy was chosen and another company who has earned reputation of serial Design IPR infringer was also selected for the study.

The three design agencies were chosen again purposively considering them to be best ones in the market for this specific industry. Retailers were chosen across the country from the respective company's database.

There were no Hypotheses made for testing, since the study was specifically to understand the design think and design based strategy formulation to create superior brand and earn competitive advantage for companies with the involvement of external design agency partners and retailers. Another reason to not make Hypotheses was the fact that designs can help companies to develop differentiated products, which consumers need and desire for, which would enable building strong brands and thereby earn competitive advantage in the market place is known with reference to other matured industries like automobiles, but understanding and adoption of the same was to be studied for consumer durable companies in India.

The important variables to study in this research were identified as: Marketing Strategy, Product design, Innovation, Brand building, IPR and Competitive Advantage.

Hence the Research Method adopted for this study was:

- Exploratory research: To get insights into the core of the issue and understand how intellectual property of home appliance companies are being managed.

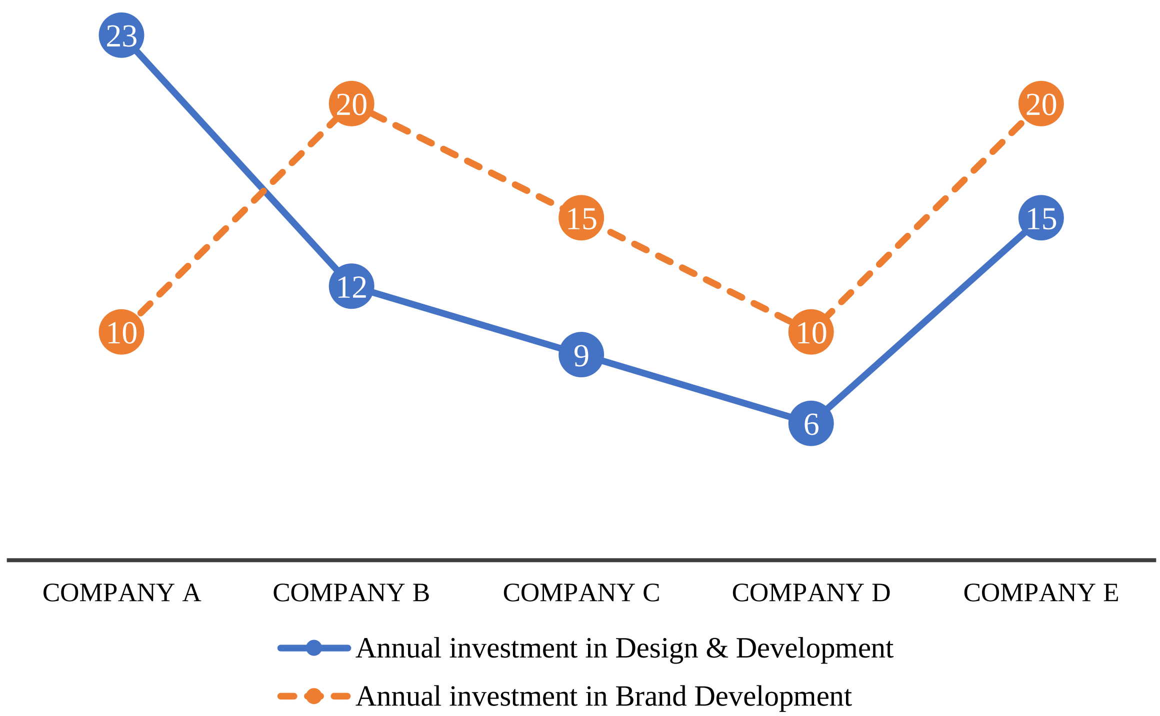
- Descriptive research: To understand and examine the relationship between the variables like intellectual property rights of a consumer durable company, the marketing strategies for brand building and competitive advantage

- Causal research: To study the cause of market reactions to the strategies implemented by the home appliance companies in India.

5. KEY RESULTS OF THE RESEARCH

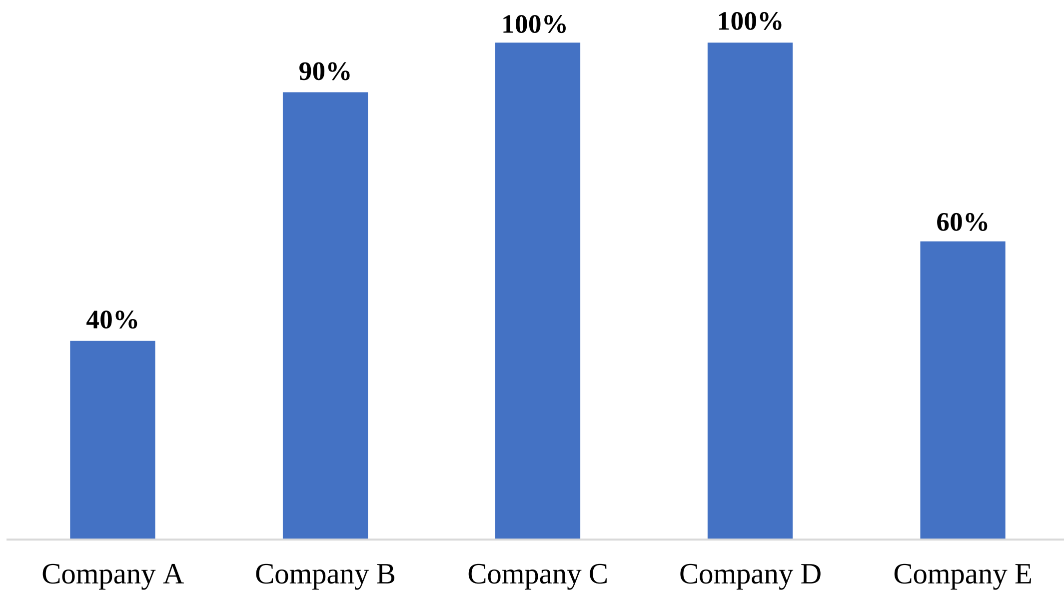
The Home appliance Companies

Five prominent companies in the industry were selected purposively and studied. The analysis of these Home appliance companies for certain specific information has been represented below:

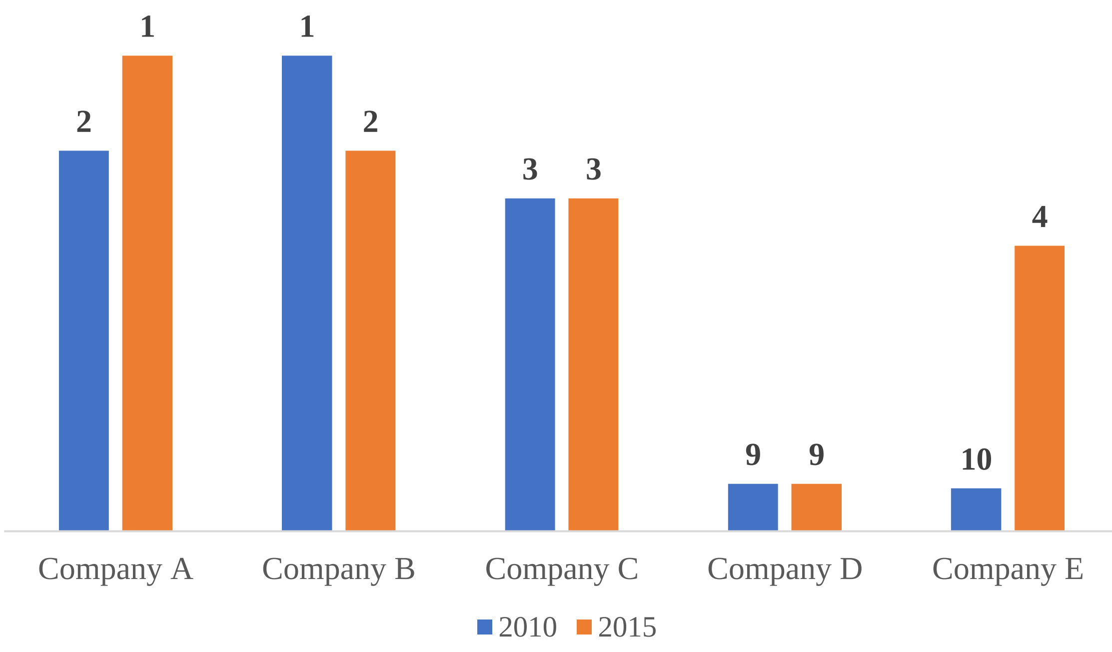


Graph 1: Company wise focus on Design v/s Brand
(All figures in Rs. Crores)

The names of these Companies have not been revealed for confidentiality reasons to protect their information from getting breached in public.



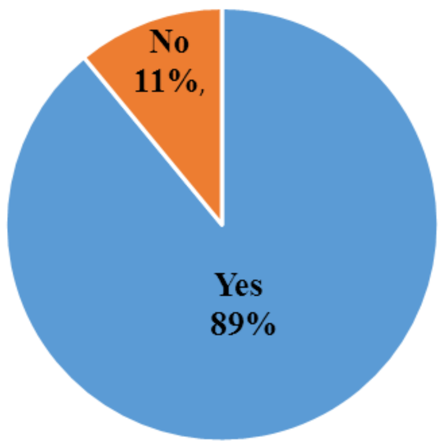
Graph 2: Design & Development dependence on Sales



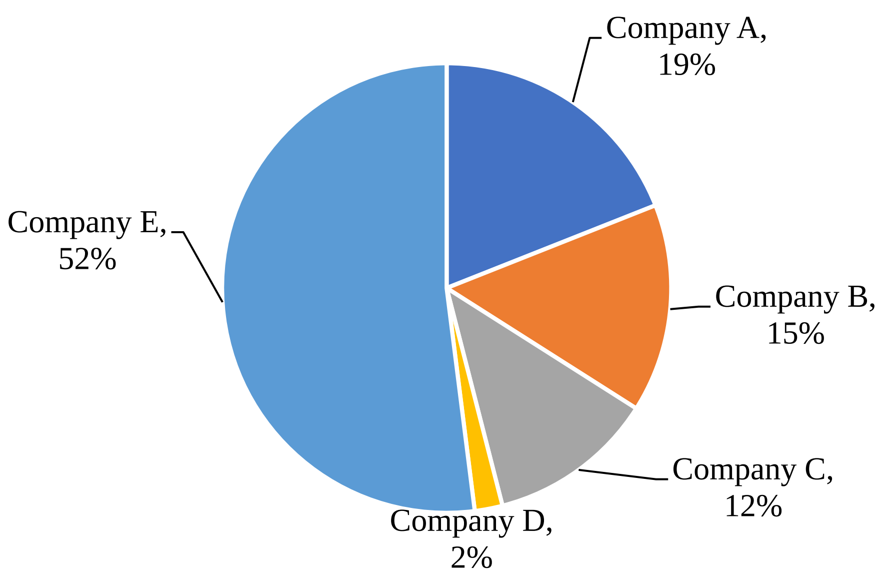
Graph 3: Market Ranking based on Business Turnover *(Source: Euromonitor)*

The Retailers

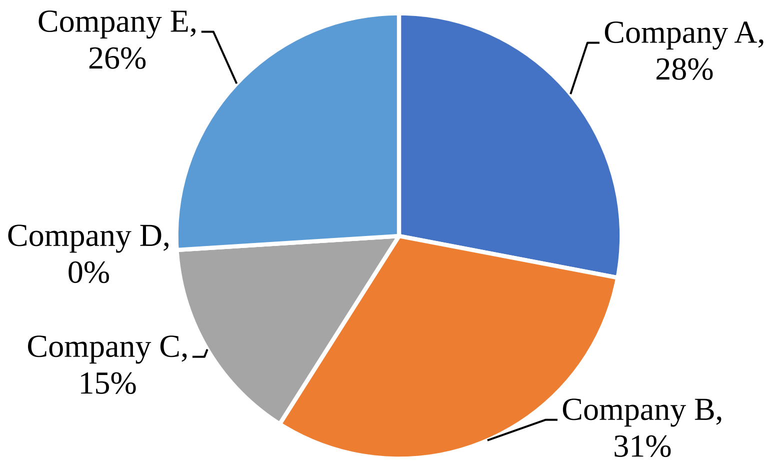
The analysis of Retailer interview for certain specific information has been represented below:



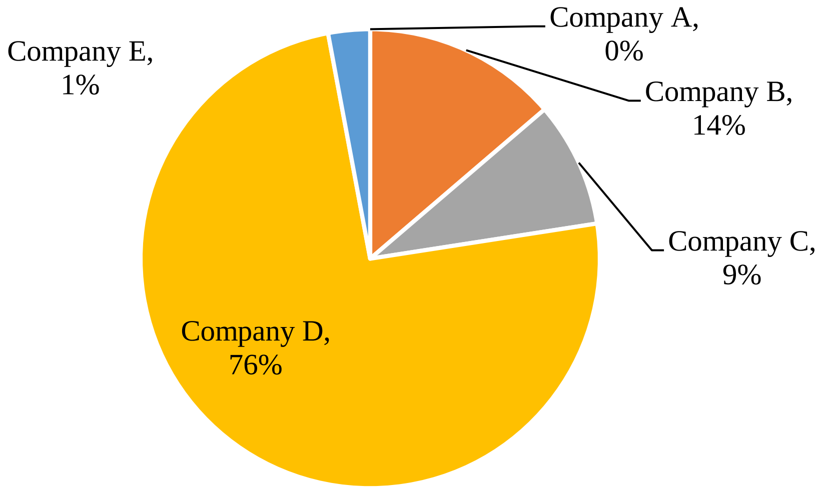
Graph 4: Design has been a major reason for competitive advantage in market



Graph 5: Most innovative company on design parameters



Graph 6: Company's designs that faced counterfeiting



Graph 7: Company involved in design counterfeiting in last five years

	Most innovative	**Faced counterfeit**	**Done counterfeit**
Company A	19%	28%	0%
Company B	15%	31%	14%
Company C	12%	15%	9%
Company D	2%	0%	76%
Company E	52% *	26%	1%

** Introduction of new models basis*

Table 1: Summarized result of Retailer feedback

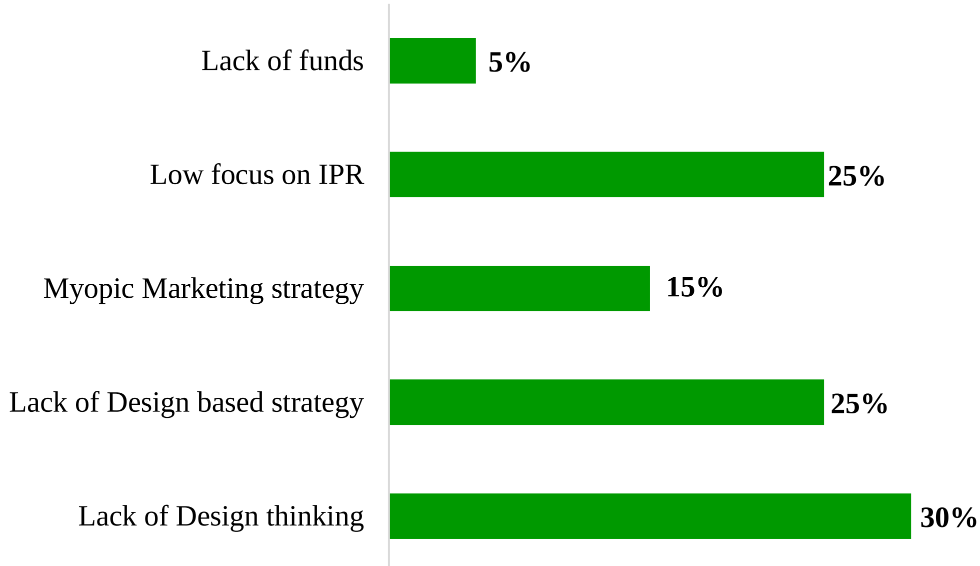
The Design Houses

The analysis of Design houses interview for specific information has been represented below:

	Design Agency 1	Design Agency 2	Design Agency 3
Company A	5%	0%	1%
Company B	5%	5%	0%
Company C	1%	0%	0%
Company D	0%	0%	0%
Company E	1%	0%	20%

Table 2: Dependence on design agencies in the last 10 years

The names of these Design agencies have not been revealed for confidentiality reasons.



Graph 8: Reasons for low dependence of Companies on Design agencies

6. CONCLUSION

It is evident from the above research that Designs can disrupt business and transform markets. There has been a major change in the last decade the consumer durable industry of India, particularly to attract new consumer base and also to evolve with the fast evolving consumer taste and preference. This change has been design centric where in the concept of ergonomics has slowly become the key differentiator and USP of several brands. Earlier the term and concept of ergonomics was associated with automobiles and furniture, which found a big chunk of takers among home appliance consumers as well with the evolving time. Aerodynamic in its perfect meaning and performance is now seen in many ceiling fans, ergonomically superior design are now seen in electric irons, water heaters, food processors, consumer lamps and lightings, etc.

However when it was studied in-depth, a lacuna in-terms of design thinking and design based strategy was found in most organizations in the industry. Creating a new and innovative design for attracting the consumer is one idea but adopting that concept in corporate strategy to market the products with design based thinking and strategy as the initiative to create competitive advantage was lacking in three out of five companies.

For a company (E) which majorly banked upon Deign thinking and design based strategy, it could grow exponentially and jump up from the 10th rank to 4th ranking in the industry in five years. The same resulted in the number 2 ranked company (A) to grow up take the no: 1 position in five years due to immense focus on design & development. Analyzing the results of the research with observation on Company A, we can note that the company has been focusing more on design & development than on brand building. The idea is very simply executed that a superior design will itself lead to create a better brand and go on to create a competitive advantage for the company. Being a top ranked company which already has a considerable brand recognition and acceptability in the market, it can also afford to do so. For Company E which was trailing behind in the ranking list, it is also seen to be focusing majorly on design & development due to serious design thinking and design based marketing strategy. Along with, it also has been seen focusing on brand building exercise in a very big way. If we have to comment on the marketing strategy of Company E, it will right to say that with the desire to grow, it has been focusing on design & development to create a competitive marketing advantage for itself and as a trailing behind company the equal focus on brand building has together helped this company to grow up in the ranking list. Also both these companies have shown less dependency on Sales to control and decide Design development work. The results of their design thinking and design based strategy are evident in the ranking list.

Company B which has been in the no: 1 position but evidently due to lesser focus on Design & development, maximum dependency on Sales to control and decide Design development work, it slipped to the no: 2 position, in-spite of considerable focus on brand building alone. Although as a top ranked company it has faced a huge revenue loss due to counterfeits, poor however to note, it has itself counterfeited also to some extent as per the views of retailer in the market. It surely needs to improve on its thought process of marketing to evolve on design thinking attitude to create competitive advantage for itself. Company C has been a mediocre and remains to be so, and it too needs to improve on its thought process of marketing to evolve on design thinking attitude to create competitive advantage for itself. Company D has been the bad boy of the lot for having participated in maximum counterfeiting work. Counterfeiting is generally associated as a practice with companies of inferior repute jostling the grey market space, but unfortunately companies of repute in the organized sector participating in that trade is not acceptable. Company D has been in the trailing end of the ranking list and continues to remain there with maximum dependency on Sales to control and decide Design development work, low focus on Design & development work and high amount of IPR infringement with Design counterfeiting practice.

This means that due to lack of design thinking, seriousness in approaching design innovation as a strategic approach in marketing for building a valuable brand results in loss of competitive advantage for the company. This has been illustratively explained as below in Figure 2.

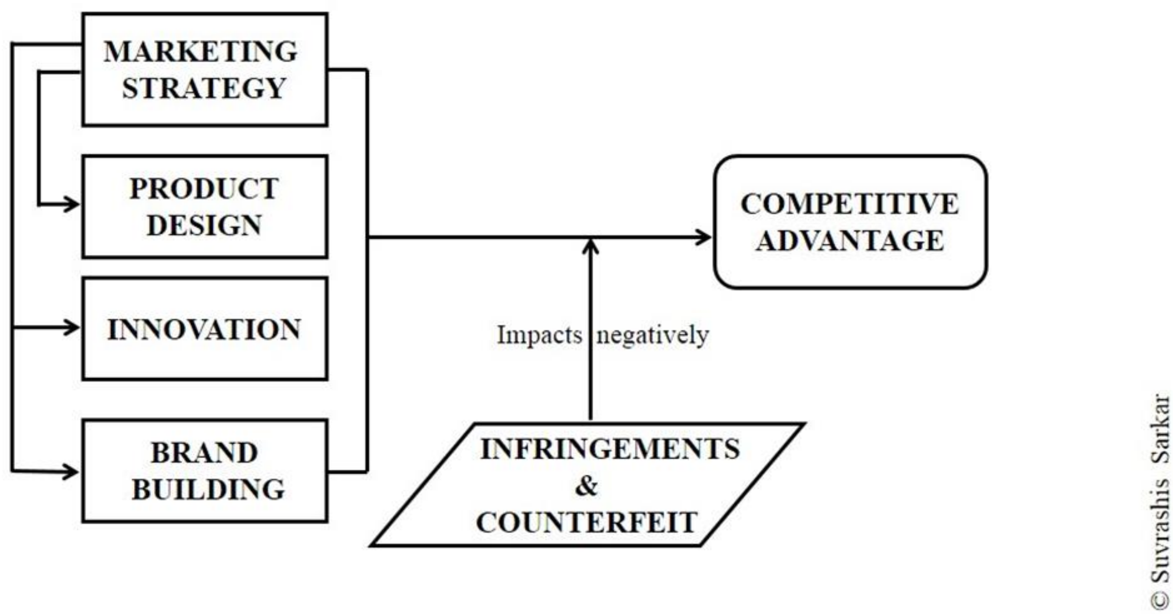


Figure 2: Design thinking and strategy not leading to Competitive advantage

To eliminate this situation, if design thinking is seriously taken by considering it as a valuable Intellectual property and taking necessary steps to protect it will facilitate in earning competitive advantage for these companies. This is illustrated as below in Figure 3.

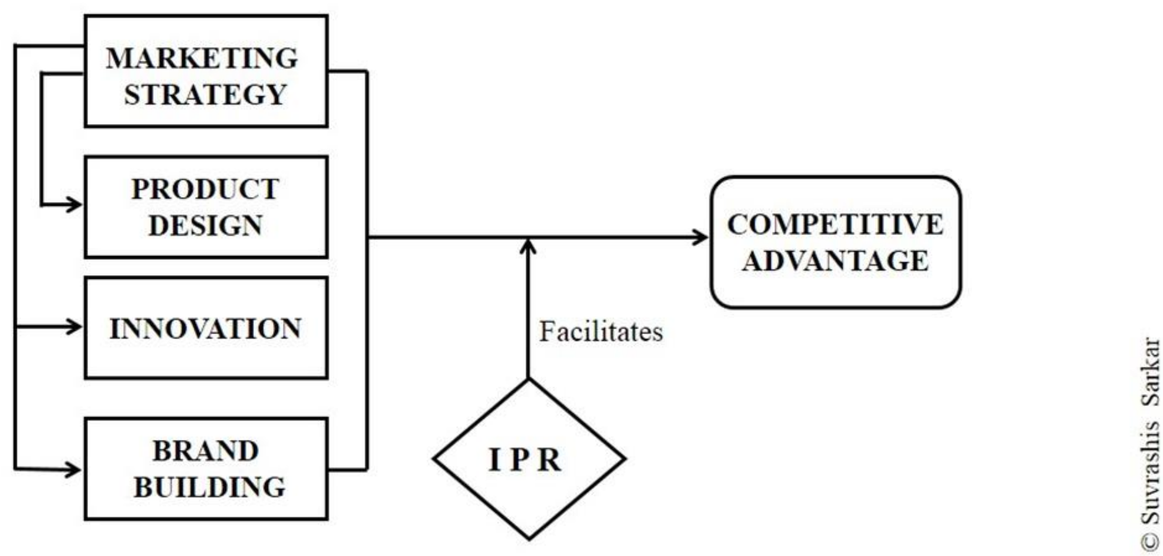


Figure 3: Design thinking and strategy leading to create Competitive advantage

7. SUGGESTIONS AND RECOMMENDATIONS

After detailed study on this topic, the basic idea we feel right in this context is that to have a successful design based strategy to attain competitive marketing advantage, the marketing team has to think like designers for strategic operation and similarly the design team has to think like marketers to develop a strategic model to attain competitive advantage for the company.
It will not be overwhelming to accept the question as to how can the concept of Design thinking be adopted and implemented in the organization to benefit it. Singular method of design thinking adoption was proposed in several studies earlier *(Verganti, 2008)*, a user centric method was proposed was *(Brown, 2008)*, *(Kelly & Littman, 2006)* suggested that organizations may adopt multiple form of design approaches to achieve innovation.
To recommend a method for this industry, and also for other likewise sectors, we propose our postulated **Sarkar–D'Silva Model of Design thinking process** that can help Design thinking adoption and implementation in business, as below:

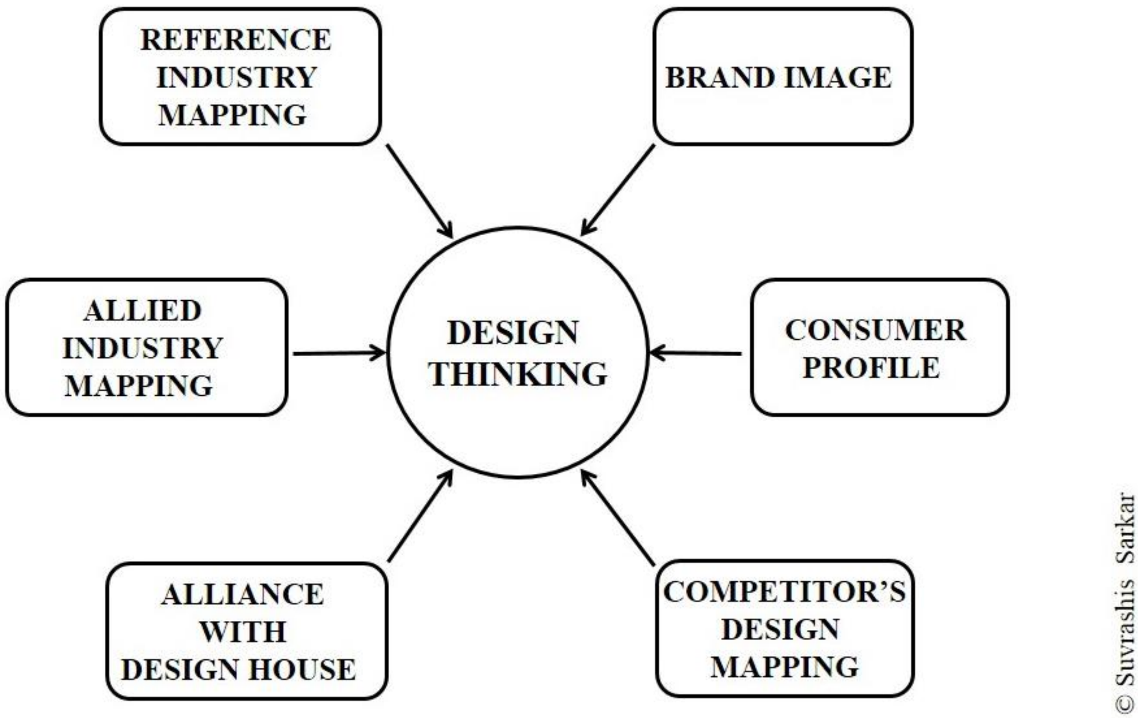


Figure 4: Sarkar–D'Silva Model of Design thinking process

Brand image is the symbolic resource that communicates core messages of the organization and the same therefore can be a very good source of design thinking cues for the company. The organization can adopt and implement design thinking from the Brand legacy or impression of the brand on its products and consumers. A design based on the ideologies of the brand image can be a tremendous success if explored to its core. The example of Coca-Cola from FMCG business can be a very good one to refer and understand how the flow of Brand copy and the design of the product bottle has be made to align with each other conveying the common message. This helps in creating a design which acts as an integrator with the brand, creates brand recognition and wide acceptability and also acts as a source of business growth, thereby creating an identifiable competitive marketing advantage for the company.

The consumer/ target audience is always identified and known to the company for the specific business. If the consumer profile is studied properly to create the correct image/persona, the product design congruent to that profile can be created from that cue. Doing this would enable not only a specific design based thinking but would also help in creating a design conjugal to the persona of the target audience thereby resulting in high product acceptability and immensely successful brand leading to a marked competitive advantage for the company.

As is said time and again, in business strategy it is always good to remain updated about the competitor and their moves. The same can of very good help in design thinking process. A successful competitor's product design mapping can help the organization to learn from the innovation that the competitor has done and also would help in doing better than the competitor. Competitor's design mapping is a huge source of information to develop innovation in product design in the company; it can help in continual design thinking habit and implementation in strategic marketing process with the aim to create competitive advantage. This method can act as a transformer by creating new business opportunities; and also for improving the company's ability to cope with change in the business.

Many a times it is not possible for companies to have design thinking incubating inside the in-house Design & Development department. Similarly so Marketing department more often remains busy working in the company's cultural limits. Such a situation is most common and prevalent in the industry. In this scenario, it is advisable to develop alliance with Design agencies / Design houses which specialize in the area of designing products across industries. Design agencies or Design houses as they are called have team of specialized design engineers who can create breakthrough innovative designs. Empanelling such a Design agency for Design & development work of the company can bring in immense Design thinking to create innovative products helping in energizing the brand and thereby lead to create a competitive marketing advantage for the company. A very good example to quote would be the Seymour Powell Design house which is internationally renowned and specializes in creating innovative designs for consumer durables. One of the five companies mentioned in this research had an alliance with this agency around 17 years back and the resultant product that was launched is still a hit in the market after all these years. It earned them high brand equity and created a definite competitive advantage for the company. In-fact another company from the five mentioned in this paper has extensively infringed that design and product trade-name even. This method therefore can be a very good way of bringing in design thinking in the company where it can act as a transformer of business and can also be a source of good business growth.

Mapping an allied industry such as Consumer Electronic products can be a good way of learning about the design developments happening in that sector which can be a source of design thinking for the Home appliances companies. Learning from competitors can be a very good method as already explained above, but learning from an allied industry can be even better method as a fresh new line of thinking can come into the process to enable design based strategy in the company that can create innovative products, help in building the brand further and lead to earn competitive advantage. In-house Design & Development team of the company if maps the allied industry in a manner to learn the regular developments taking place in that sector, it can help the team to break the stereotyping thought process and bring in fresh design thinking to create a design based marketing strategy with an objective to earn competitive advantage in business.

It is often considered as a very good strategy to benchmark a reference industry and learn from the developments happening there. Automobile industry is widely accepted as a very good reference point for Design & Developments work. For the discussed Home appliances industry in India, automobile sector can also be a very good reference industry that can be mapped to learn Design & Developments work and cues from this reference point can help in a big way to bring in design thinking in the company. Creating modern products out this design based strategy can help in wide consumer acceptability and subsequently earn a strong brand equity thereby leading to create a competitive advantage in the market.

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EMERGING TECHNOLOGICAL TRENDS IN DIGITAL MARKETING

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ABSTRACT

Digital marketing is the new-age, cutting edge method of showcasing a brand in the universal, digital universe of the day, all through the means of hyper-advance innovation. Likewise, Internet assumes a critical part in digital marketing, where different products and services are marketed to get consideration of endless netizens (citizens who spend lot of time on the internet). Whether it's on a PC, an advanced mobile phone or tab, through this splendid method for high-impact marketing, a business can contact any client utilizing one of these methods, anyplace. The scope and hold of this technique go past every single land obstruction. It's for the way that this mechanism is way more compelling, helpful and fulfilling that more number of organizations are bouncing onto the trend of digital marketing. With advancement in Digital analytics, it provides precise performance indicators for every rupee spend to market your product and brand, thus reducing the spill over to reach your target customers.This paper highlights, emerging mobile device technologies in the field of digital marketing. The authors have reviewed and evaluated extensive literature and cases on the use of new age applications, which have been utilized in developed regions. Special emphasis has been placed on marketing strategies, which involve the use of mobile devices. A view on location based digital marketing and its effectiveness has also been evaluated. The results of this evaluation have been detailed in the form of utility framework for digital marketing in an Indian context for running a campaign by giving real-life examples for different technologies. The paper also details the adoption of these technologies which helped marketers to use 4P’s in a contemporary way to focus on customer-centric marketing. This may involve both complementary digital and traditional marketing strategies. The pros and cons of using emerging technologies have been highlighted, with the authors making recommendations for the scope of future research in this area.

KEYWORDS: *Digital marketing, cutting edge, hyper-advance, mobile applications, location based services, customer engagement, digital conversations, customer-centric marketing*

1. PURPOSE OF RESEARCH

To explore the applicability of new emerging technologies like quick response codes, augmented reality and near field communications in the field of digital marketing from an Indian context.

1) Augmented reality (AR) is a real-time view of the environment whose elements are augmented/ supplemented by intelligent and application based information and communication technology that enhances and adds value to the real time view of the customer.
2) A quick response code (QR code) is attached to an item that records information related to that item, this code is readable by any imaging device such as a camera and can be processed further for identification of that item.
3) Near field communication (NFC) is a set of standards for smartphones and similar devices to establish radio communication with each other by bringing them into close proximity for data exchange.

2. RESEARCH METHOD

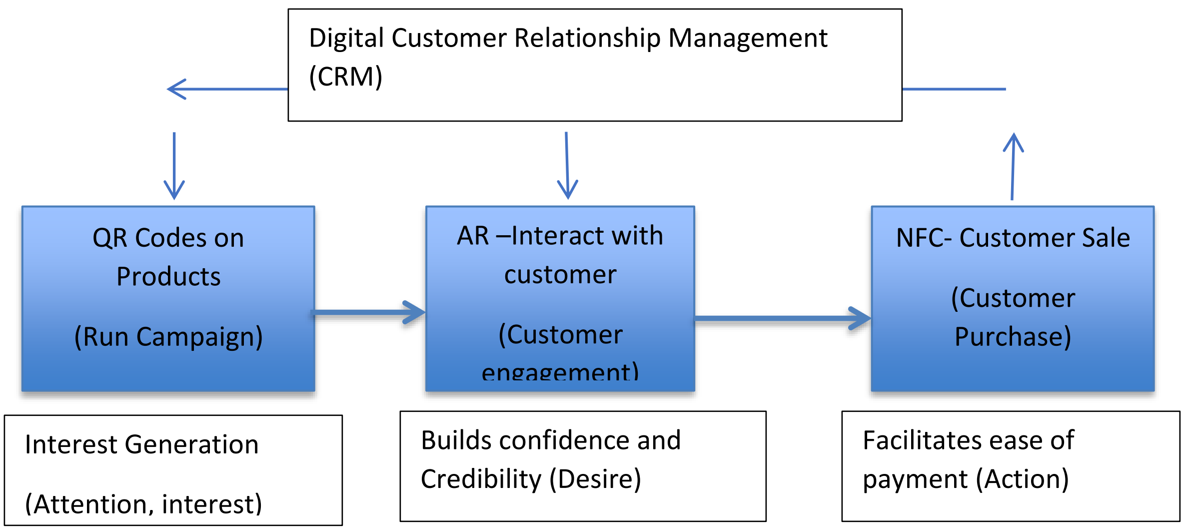
Content analysis was the method adopted. Under this, various examples and research papers pertaining to emerging digital technologies like augmented reality, quick response codes and near field communications were studied and cases relevant to the topic were found. The cases were then studied and the applications of these technologies in different industries and different facets of business advantages were analyzed. The status of the Indian consumer adoption of such technologies was researched through published papers. A model/framework to make these technologies work to the business advantage for the benefits of buyers/customers as well as sellers/firms is proposed in this paper. Examples and excerpts are quoted to highlight the relevance of these emerging digital technologies.

3. DIGITAL CRM FRAMEWORK

It is found that all 3 technologies i.e. augmented reality, quick response codes and near field communications are used to establish and sustain customer or consumer engagement. The digital marketing field is all about creating conversations, which aid engagement with the brand.

Digital customer relationship management is the utilization of Internet channels and technologies to upgrade customer relationship management (CRM) and customer experience management (CEM) activities.

A critical objective of Digital CRM is not just to give an organization with a clear picture of every client's habits & preferences, additionally to make personalization and automated messaging easier. The term Digital CRM is frequently connected with the Internet of Things, a situation in which PC processors equipped for sending and accepting information are implanted in ordinary items. In such a situation, the client may not be human - the client may be a fuel tank equipped for sending a mechanized message to the provider, asking for a conveyance.



4. ROLE OF QR CODES

Quick response (QR) codes originally meant for tracking inventory, marketers in developed nations have ingeniously used it to good effect in their campaigns. As QR codes are 2 dimensional, they can store more information than a conventional 1-dimension bar code. Marketing campaigns have utilized QR codes effectively using gamification or by making a play on the intrinsic quality of curiosity of human beings and the need for discovery. This works since the very nature of a QR code is cryptic and can just about lock in any information such as a web unique resource locator or a discount coupon code.

For QR codes to be effective in a distinct market like India, first awareness about this technology should be created among consumers. Telecom service providers and cellphone manufacturers must buy-in to the concept and incorporate QR code reader applications in mobile devices prior to sale of the device. We find that while QR codes are being used by organizations in India on their products they have not found acceptability with the Indian consumer.

Impact on Traditional 4P's

4P's	Impact
Product	Built Credibility about your product's Quality
Price	Premium price for High Quality product
Place	Convenient for consumers to get the information
Promotion	Let the customers discover themselves about you

Examples (QR Codes)

1) **FMCG Industry-** The objective Nestle is to provide consumers with the best taste, most nutritious choices in a wide range of food and beverage categories and help them maintain optimum Nutrition, Health and Wellness. Nestle has been rolling out initiatives that help them make more informed choices e.g.:- During the year 2015-16, they have enhanced labelling of products with QR codes. This enables consumers to use their mobile phones to scan the QR code on the label for information on Nutrition, Environment and Community as relevant to the product.

2) **Food Industry-** McDonalds the fast food chains tackled their erosion of brand image through a global transparency drive by launching the application "Track My Macca's" on the I-phone, which is an augmented reality application. Customer's scanned QR code (mobile barcode) on the side of a burger's container and got the entire view of the company's supply-chain data based on the user's location through animated augmented reality. The users could also connect and chat with real farmers, bakers and fishermen who supply the ingredients. So, customers were not only engaged but also were driven to have a conversation. This kind of campaigns let the customers discover themselves about you rather than you telling them and marketing yourself. This creates real credibility and customers believe and trust you.

3) **Retail (on-line super market) -** Tesco faced a challenge of having fewer numbers of stores as compared to many of No1 player E-mart in South Korea. They expanded their online sales through mobile shopping rather than spending a lot of money opening new shops, as South Korea has more than 10 million smartphone users in a population of less than 50 million. Tesco targeted on commuters waiting for their train To get the same experience as shopping mall they plastered the glass walls of subway stations with pictures of their

products, laid out just as they'd be in a traditional shop. The 'shelves' featured QR codes which they scanned and the product automatically landed in their on-line car.

5. ROLE OF AUGMENTED REALITY

The digital World Wide Web where products and services are marketed online is restricted with its sensory inputs to the viewer. A marketer where in all marketing messages should be supplied to the user can use only visual and auditory stimulus. The touch and feel stimulus which is critical to making a buying decision is missing. Augmented reality bridges the gap between lack of sensory inputs of touch in the digital world. It compensates the lack of touch by providing an interactive engagement experience with the viewer. This is done by augmenting basic product or service information with linkages to deeper information on product composition, dynamic rate display and on the fly customization.

Impact on Traditional 4P's

4P's	Impact
Product	Virtual display
Place	Convenient for consumers to get the product information
Promotion	Marketing according to convenience of customers

Examples (Augmented reality)

1) **Xenium Digital** provides clients with multiple AR solutions.

   Augmented Product Displays: In corporate On-stand kiosk and environment, consumers can visualize physical products live. Ex: Maruti Suzuki Alto 800

   Interactive Kiosk: Augmented content is used to allow consumers to interact and immerse themselves with the brand. Ex. Zee Fear Files and Just Dance

2) **Magicbricks** -Buying a home will no longer be a tedious, time-consuming and nerve-wracking process. Magicbricks has turned property search into a joyous experience with its Real Estate Experience Centre in Mumbai.

The Experience Centre has six distinct components which allow a buyer to perform a wide range of tasks such as browsing property listings, using various financial calculators, comparing property, virtually speaking to a (magicbricks) advisor, immersive walkthroughs, and touchscreen-based map searches.

The Experience Centre is a unique and beautiful amalgamation of the online and offline worlds, thereby bridging an important gap that existed between a buyer and a seller. Using technologies like Virtual Reality, Augmented Reality, on-demand Video-call and large-format touchscreens, the brand has created a compelling proposition to address the myriad questions that plague a buyer during his home-buying journey.

3) **NASA Spacecraft 3D:** Using this app student can gain information about several robotic explorers as well as spacecraft. With the use of mobile devices or tablets, they can learn about the design and function of aircraft.

6. ROLE OF NFC

While, augmented reality and QR codes are tools in engagement and aid in the creation of conversations, Near field communications (NFC) which a hardware driver solution on a mobile provides a call to action to the customer/consumer. Our research has found NFC is primarily being used for contactless secure payments, it is slowly picking up pace as engagement tool in developed nations. For such a technology to be successful in an Indian context, more messages in mobile security have to be conveyed to the Indian populace, as security is a huge concern in this region.

Impact on Traditional 4P's

4P's	Impact
Product	Easily available information
Place	Convenient for consumers to pay through contactless interface
Promotion	Marketers can do targeted promotions

Examples (NFC)

1) Hotels- keyless entry into hotel suite doors through NFC
2) Security clearance or authorized access- Into Laboratories, Garages or Conferences though NFC

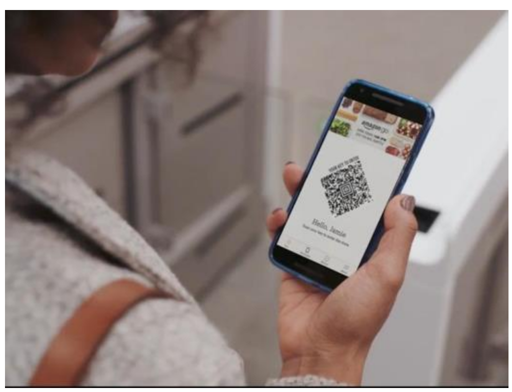
3) Casino-It is a French supermarket which has used NFC tags in front of every product on the shop shelves. Customers touch their own phones to the tag and can view product info or add to their mobile app's basket. This mobile app basket allows for physical checkout, the user can bag up the items as they shop then use their phone at the point of sale to pay for everything they've totted up.

7. IMPLEMENTATION OF DIGITAL CRM FRAMEWORK -- AMAZON GO

Attention, interest

Discussions around **proximity sensors or beacons (QR codes)** concentrate on effectively inspiring customers to make a special effort to satisfy a brand’s desires, or intruding on them as they use their mobile phone

It's a marketing dream that a shopper in the nearby area from the stores could get a notice on their mobile phone guiding them to new drink three walkways away that would run superbly with their crispy chips, and maybe even offer them a **trial coupon** to lure them. Once there, why not advise them of a **customized buy one-get-one-free offer** on a cornflakes their loyalty card data lets us know they used to love, however haven't got in a while?



Desire

If advertisers need to occupy customers around various parts of a market and past their items, they have to discover a really helpful method for doing as such. Maybe the answer is an **application (works with AR)** that can take your shopping list, outline where each thing is in the shop, and guide you round it like an indoor satellite route?

Action

The checkout-free shop utilizes **proximity sensors (NFC), cameras and an application** to make the in-store encounter so consistent that you can actually pick things off the rack, exit with them, and have them consequently charged to your record.

8. IMPLICATIONS OF RESEARCH

Marketing communication agencies can now design entire campaigns around creating conversations between a customer/consumer and the depth of information can be provided at multiple levels using augmented reality. A richer experience can also be created with a new concept call articulated naturality web which forms scope for further research in this direction.

The recent years have brought an expansion advancement of the information and communication technologies. The coming of 3G set the ball moving for a smart phone revolution in India. Enhancing availability tipped the scales for smart phones and today these gadgets are the preferred choice for all digital content and Internet access by the nation's masses.

Be that as it may, from that point forward, smart phones have come to offer a lot more for a lot lesser price. As per IDC estimates, 4G smartphone shipments grew at a CAGR of 70% between Q2’15 and Q1’2016. The average cost of 4G smartphones has also gone down from Rs 25,000 to Rs 5000 this year.

Clearly, availability needed to update itself to take care of the demand. During the most recent year, telecom suppliers in India, for example, Airtel and Vodafone presented 4G administrations. Presently, Reliance has bounced with Jio 4G services. The ascent of 4G in the nation displays a crisp & new door for advertisers to connect with their audience on all the digital platforms.

The new "Digital era" has seriously affected numerous viewpoints from the nowadays living, including the contemporary marketing, prompting to the era of Digital advertising. The expanding utilization of the Internet and different sorts of digital media as a support to the existing marketing tools that have emerged, have influenced the route on which organizations speak with their clients. Besides, clients have recognized more about their part, power and impact they can have over the organizations within this era.

Today, it is not about the products, but rather their incentive to the customers. Individuals are attempting to discover approaches to end up distinctly unique in relation to the group and the arrangement lies in customization and personalization with of Digital technologies.

Moreover, not only the cost, but rather the expenses for this arrangement are critical and the Digital Technologies have conveyed alternatives to peruse and locate the most efficient answer for their issues, without leaving their homes. The keep going thing on the comfort for them that give them a chance to purchase regardless their area and the time span. With this, the process of communication is on another level, an exchange between B2C that will permit organizations to listen and react to the clients' needs.

Organizations all through the world have grasped mass customization trying to maintain a strategic distance from the pitfalls of Mass Segmentation and give one of a kind incentive to their clients in an effective way. Promptly accessible digital technologies like QR-codes, AR & NFC allows marketers to modify products or services for individual clients in high volumes and at a generally minimal effort.

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TRANSFORMATION OF BUYING BEHAVIOR AND CUSTOMER EXPERIENCE –A COMPARATIVE STUDY OF E-COMMERCE AND BRICK AND MORTAR RETAIL BUSINESSES IN INDIA

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ABSTRACT

The retail panorama has undergone a drastic and dramatic change since 2007. Advancements in technology are changing the thought process of a consumer and it has become an organizations duty to understand and analyze where, why, how and when a consumer makes his purchase. Traditional mode of operation i.e. Brick and Mortar is facing a staunch competition from the E-commerce businesses that have emerged with a bang and are successfully flourishing. As a matter of fact businesses are recognizing this behavioral shift and hence the companies are prepared to debunk traditional benchmarks to generate more revenue. Our Research outlines, our perspective on how an E-commerce revolution in India took place in the year 2007, the reasons for its fast gaining popularity, the promotion strategies and the factors such as ease of payment, logistics, Selection, Regional Utilization and calculation of NPS (Net Promoter Score) which have been the core attributes on which the E-commerce businesses have enthralled upon. The research also tries to analyze the points of competitive advantage of E-Commerce companies on Brick and Mortar retail businesses and the future of E-Commerce in India. In a nutshell E-commerce is the future with regards to the markets of India. The battleground for customers has never been so competitive and complicated. The disruptive forces are combining to create a new contest which will result in fresh winners and losers.

KEYWORDS: E-Commerce, Brick and Mortar retail, Consumer and Competitive advantage.

1. INTRODUCTION

Consumer Behaviour has significantly changed since the advent of the Internet. Across all sectors, the flow of information has seen a marked increase in informed consumers who are aware of the pros and cons and do not rely on the sales person anymore. While Brick and Mortar in India have adapted to a more “window shopping” style consumers, the e-commerce portals have adopted a more informative approach. Content has become the forefront method of communication and the advent of reviews and ratings have seen a direct co-relation to purchase (4* rated product from a relatively unknown brand with 100 reviews is a best seller while a 3* rated product from a well-known brand is a low seller). Apart from ratings and reviews, another change is the purchase of products w/o touch and feel. Flipkart for example, has moved from a pure books seller to electronic items such as camera's and laptops to mobile phones to Televisions and Large Appliances to Lifestyle. With an ever increasing market share of the total retail business and the domination of online exclusive products in their best sellers list, the notion of touch and feel before purchase is on the downward trend.

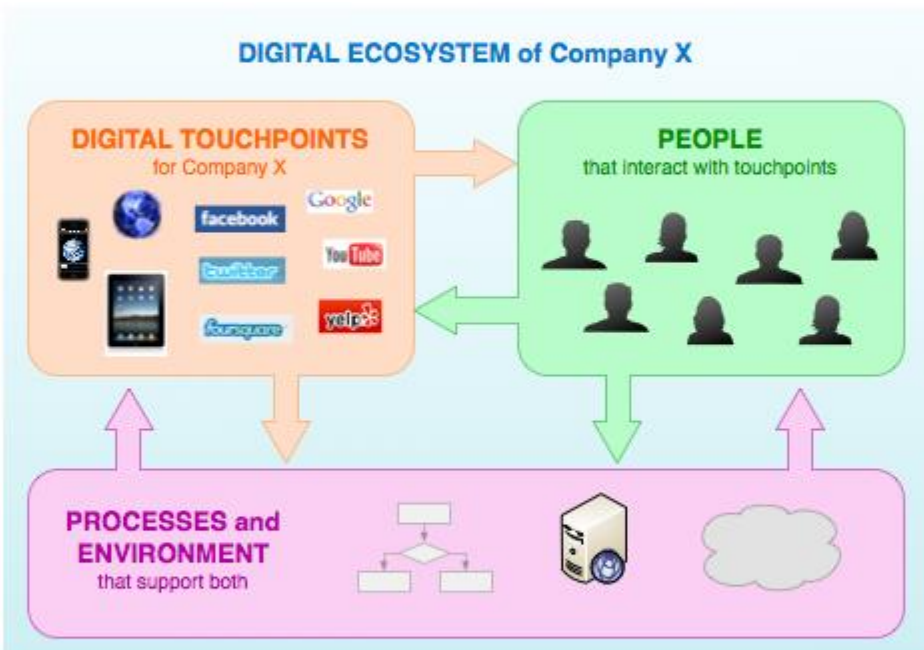
Customer Experience has also markedly changed. From a plethora of options to choose from whether it be a simple clothing item or a Big Screen TV the ability of e-commerce portals to showcase a global range at a click of a button to Replacement policy, money back policy, cash on delivery, free delivery and even a dedicated tech support, e-commerce has created a consumer base that is vocal and has global standard of service provided to them consistently.

If we go back in time and try and figure out why exactly it happened then, core reason for such a transformation is internet penetration and technological development. It has created a big spur in the market, which has led to change the topography of the world in the area of information and communication technology. Ecommerce was introduced 40 years ago and, to this day, continues to grow with new technologies, innovations, and thousands of businesses entering the online market each year. The convenience, safety, and user experience of ecommerce has improved exponentially since its inception in the 1970's. But later in mid-nineties to 2000's saw major advancements in the commercial use of the Internet. The largest online retailer in the world Amazon, launched in 1995 as an online bookstore. Brick-and-mortar bookstores were limited to about 200,000 titles and Amazon, being an online only store, without physical limitations was able to offer exponentially more products to the shopper. Thus this limitation of space was fulfilled by ecommerce website where space was never a constraint. And since 2014 the ecommerce have seen unrivalled growth where technology played a vital role and adoption led by the increasing use of devices such as Smartphone and tablets and access to internet through broadband 3G, etc. which led on increase in consumer base. But with the entry of behemoths like Amazon, Alibaba.

Most of the internet users are showing their presence on the social network which is today's demand and that's why people are drawing their edges with the essence of Social Media. Buying behavior of customers are now predictable because of the influence with mobile, analytics and artificial intelligence and all of these have led to groundbreaking changes in the buying behavior of the customer. Cloud computing is also playing a significant role as now consumers have easy access to the reviews written by the buyer of the product and also reliability and performances, practical rallies for their uses, issues with sellers, post selling experiences, validity of guarantee / warranty etc. Thus technological advancements play embarking role in the transformation and transition.

The Digital Ecosystem

The internet has been recognized as the world's fastest growing and mutative market place where there are no geographical boundaries and products and services across the world are offered in a single click. The digital ecosystem is coherently organized. The internet has been the most important invention of the 20th century and is the biggest contributor in disrupting the market and thus transforming them to an extent where the panorama is completely changed for the brick and mortar businesses. In India alone we will have 500million internet users by 2017 with a current count of 350million internet users (out of the population of 1.25billion). This shows that the popularity is splurging high and more and more users are coming online and thus services have been offered online in general. The range have increased from shopping clothes to booking travel, ordering food, cabs, insurances etc. and thus everything is at their fingertip. Today sky is limit and customer can have an application or a web based service for anything and everything. The customer/consumer has the power to run their own comparative analysis and make their own set of permutation and combination. And this customer experience was lacked by the retail outlets. The applications and web based companies have become so customer centric that the customer gets a royal feeling of being treated as KING.



The digital epitome plays a significant role in marketing and influencing consumer behavior to accouter the consumer intelligence. The E- commerce have reduced the transaction time and cost by encompassing the value chain by creating value through marketing the products and services. A quick search of "buy online" on Google throws out 83million plus results from e-commerce sites to Insurance companies. This encompasses e-commerce, review websites, comparison websites and a whole lot more, not including the various category/industry specific information available on the internet. This has resulted in not only an extremely informed audience that is the "new customer" but also provided them with the options to gather information outside of their immediate circle of friends and family. A look at the number of people who review brands/products/companies online (especially for electronics) shows clearly the marked shift in how a purchase decision is made and the information required before taking that decision.

E-commerce

E-commerce (electronic commerce or EC) is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet. These business transactions occur either as business-to-business, business-to-consumer, consumer-to-consumer or consumer-to-business. The terms e-commerce and e-business are often used interchangeably. E-commerce has dramatically changed the way people use to do business all over the world. Consumers are exposed to new methods of buying and customer experience. And the scenario has shifted and uplifted not only in developed nations but also in developing nations like India.

The introduction of internet in India in 1995 marked the beginning of the first wave of E-commerce in the country. Moreover, economic liberalization after the launch of reforms in1991 attracted MNCs and brought about the growth of the IT industry. The implementation of liberalization policies led to the demise of the license regime, and high taxes and import restrictions, as well as facilitated the growth of SMEs. The IT industry and SMEs were the early adopters of internet. This led to the emergence of B2B, job searches and matrimonial portals. B2B directory: India's first online B2B directory was launched in 1996. The liberalization of the country's international trade policies was the key factor that accelerated the growth of B2B online portals. It enabled buyers and sellers to easily connect with their global counterparts. Rebirth of e-Commerce in India. Online matrimonial: In 1996, the first online matrimonial portal was launched in India. A concept unique to India, 1 online matrimonial portals transformed the perception about the matchmaking process from "marriages are made in heaven" to "marriages are made in cyber space." Such portal shave now evolved to cater to various segments of the population such as NRIs, H1B visa holders, widows or widowers, divorcees and other special groups.2Online recruitment: India's online recruitment industry took shape in 1997. The growth of the services sector, following the launch of economic reforms in 1991, resulted in the creation of additional jobs. In this background, internet proved to be an efficient medium that allowed employers and job seekers to connect. Prior to job portals, weekly government magazines such as Employment News and newspaper notifications were the primary means for employers and job seekers to interact.

E-Commerce is creating in-roads into communities and cities which the brick and mortar retailers would take years to reach. The focused effort by online retailers to bridge the basic availability gap that existed between a Metro City and a Tier-2 town is shrinking fast thanks to the expansion of their individual logistics arm and/or tying up with the established logistics companies such as GATI, Indian Couriers etc. Thus, organized retail, which at one point of time was the hallmark of the Metro Cities, is fast spreading into the hinterland and with it the purchase decision of its residence. By removing the availability factor and the availability of cheap internet, these "new" customers now do not have to depend on availability and/or a trip to the nearest city. The E-commerce revolution took place in India in 2007 after the launch of Flipkart. Flipkart's focused at gaining trust of the customer's because Indians are generally fond of touch and feel and it took 7 years for us to adopt the fashion of shopping online.

Being driven by a young demographic profile, increasing internet penetration and relative better economic performance, India's e-Commerce revenue is expected to jump from $30 billion in 2016 to $120 billion in 2020, growing at an annual rate of 51%, the highest in the world, according to a joint ASSOCHAM-Forrester study paper. While in terms of base, India may be lower than China and other giants like Japan, the Indian rate of growth is way ahead of others. Against India's annual expansion of 51%, China's e-commerce is growing at 18%, Japan 11% and South Korea 10%, according to a joint study. Retail category penetration has increased to 65 million unique visitors a month registering an annual growth of 55%. The growth has come across all retail categories and most of them show promising transactions and conversion rates along with growth in visitors. Apparel has been the fastest growing subcategory in retail and reaches 24% online users. Internet shopping is becoming increasingly popular and internet sales are estimated to grow from $172billion in 2005 to $329 billion in 2010(Johnson, 2005). Internet retailers have improved their websites by disclosing the relevant product information to support their advertising claims such as price, discounts, shipping and handling costs, return and exchange policy, merchandize dimensions, color, manufacturers name and product model/serial numbers and even third party evaluations or reviews for the products and or services (Girard, T et al.,2002)

YEAR	INTERNET USERS **	USERS GROWTH	NEW USERS	COUNTRY'S SHARE OF WORLD INTERNET USERS	GLOBAL RANK IN INTERNET USERS
2014	243,198,922	14%	29,859,598	8.33%	3
2013	213,339,324	37%	57.763.380	7.87%	3
2012	155,575,944	27%	32.605.503	6.18%	3
2011	122,970,441	36%	32.545.593	5.39%	3
2010	90,421,849	48%	29.486.779	4.42%	4
2009	60,935,069	18%	9.484,859	3.45%	6
2008	51,450,210	12%	5.665,948	3.27%	6
2007	45,784,262	43%	13,709,281	3.33%	6
2006	32,074,981	19%	5,157,948	2.76%	7
2005	26,917,033	23%	4,969,545	2.52%	7

Value Creation Strategies

In the digital age consumer use various channels to be actively present as to render the service and instantly decide and review the products and offerings by the company. Companies working on E-commerce mode of business are working hard on choosing the right and correct way of attracting the customers where customer satisfaction is kept at the center and other functions and attributes like retaining the customer are circling it. Customer stickiness is very important especially in this digitally well-equipped era where customer has tones of choices. Keeping in mind both qualitative growth and quantitative growth companies are hitting on the better customer experience. The Marketing initiatives taken up by the e-commerce companies are markedly different from the traditional Brick & Mortar retailers. One major difference is the televised marketing campaigns done by the likes of Flipkart, Amazon, Snap deal, Pepper Fry as well as classifieds such as OLX, Quikr and others. Taking an example of the e-commerce companies, their value creation and marketing message cover Delivery (Free Home Delivery), Selection & Availability, Pricing, Product Quality (100% genuine products) and the respective sale events that are done at least once in 3 months.

Elevated Transaction Efficiency

The companies that use internet to increase the transaction efficiency have the potential to create value for all the party involved in the transaction.

- Provides large selection (one stop shop).
- Transactions have been made convenient.
- Allows consumer to save time
- Regional Utilization is given priority so that each and every part of the country is catered.
- NPS have been given utmost important.

Selection

E-commerce companies have become one stop shop for customers and it is one of the factors for the shift of consumer from brick and mortar to e-commerce. As a wide range of selection and choice are offered where the customer has a liberty to choose, compare and check the review before buying a particular product of service. Doing such things was not possible in brick and mortar retail out lets. Customer can choose from various websites or applications at the same time. Shopping has been given a different outlook altogether. The companies are brilliantly showcasing the brands and private labels as well. They continuously are thriving on providing and showcasing their new selection so that stickiness of the customer is seen. In short E-commerce companies have come out of physical barriers.

Transactions have become convenient

In order to the transaction appearing simple to the customers, the overall transactional context should be convenient and should avoid the level of stress for the customers. And surprisingly many E-commerce companies are taking these measures. For instance one can save the card details on the portal and it is secured thus it leads to fasten the process. The previous search history is saved and it pops up on the customer's next visit. Certain suggestions which are termed as notification in the business world are sent in order to notify the prospective customers about the new updates. Free returns is like icing on the cake where the customer has liberty to buy- try and return it if he/she chooses to and the period of return varies from 7days to 30 days it varies from company to company and also depends of the nature of product. The appearance is simple which is why customer is able to navigate easily and the process is simplified. A complete product description with product reviews helps to enhance the decision process. E-commerce companies are taking advantage of the reach and other aspects.

Time Saving

The ecommerce companies studies and measure the customer preferences in detail as such that half of customers search time is reduced. The extensive detailing such as colour- coded products, relevant categories, sub- categories and search engine. And companies further reduce the search time by offering complementary products. User Interface has a major role to play, as the interface is friendly customers find it a child's play and that leads to closure of sale with customer satisfaction.

Regional Utilization

Regional Utilization is given extreme importance in the ecommerce business. It means that geographical barrier should be ruled out. As ecommerce companies cater to pan India hence the products should be delivered and serviced to pan India and for that stocking right amount of the inventory at the regional warehouses are very important. Customer experience has a very close relation with the timely delivery of the products and thus it is of core importance. Companies like Flipkart, Myntra, Amazon, Snapdeal keep regional utilization at priority along with selection.

NPS (Net Promoter Score)

NPS also known as Net Promoter Score is a technique which is used by ecommerce companies to analyze their market status. As to how are consumers perceiving it and would they recommend it to others. The formula of NPS is as follows:

$$NPS = \frac{\text{Number of promoters- Number to detractors}}{\text{Number of respondents.}}$$

As a part of review the total number if negative reviews are deducted from the positive reviews and then divided the total number of respondents. This approach was completely ignored by Brick and Mortar retail businesses and keeping things on track ecommerce companies have been able to capitalize on bridging the gap.

Creating ‘Stickiness’ to motivate repeat transactions

One of the paramount strategies for value creation through ecommerce is ‘stickiness’- the ability of web sites to draw and retain customers. This is of critical importance the competition of site visitors will grow as the number of consumers and vendor increases.

Stickiness creates value by increasing transaction volumes. We have identified a few effective means by which the companies in our sample create stickiness.

- Reward customers for their loyalty.
- Personalize the product or customize the service.
- Build virtual communities.
- Establish their reputation for trust in the transaction.

Consumer Perception

There has been a big shift not only in consumer behavior but also in consumer perception of ecommerce. Indians always had a requirement of touch and feel but not there a big shift where the space-market has taken over. Ecommerce Company's success depends upon the conversion rates. As to how many eye balls had hit the webpage or mobile application and in accordingly they calculate the conversion ratio. Since a consumer survey was conducted and respondents have preferred shopping through websites or mobile applications over brick and mortar retail outlets. And the major reason for the shift is convenience where the ecommerce companies gives them a flexibility of shopping from anywhere and anytime since they function 24x7.

2. RESEARCH METHODOLOGY

Research Methodology includes the following:

Sampling (of Respondents for Questionnaire)

- All respondents were Urban and belonged to internet using population.
- Majority of them were found to buy online.
- Random sampling was used predominantly.
- Also, Snowball sampling and Non probability random sampling were used
- Sample Size was taken as 100

Data Collection Tools

1. Primary Data collected through Questionnaires to Justify the Research objectives
2. Secondary Data collected through Research papers,articles,Journals,Websites available on the Internet

Data Analysis and Inferences

Table-I

Year	Retail E Commerce sales	Non E Commerce Retail Sales	Total Retail Sales
2015	12.91	746.50	759.41
2016	16.08	602.38	618.46
2017	20.01	535.82	555.83

(Figures in USD Billion)

Findings after Statistical Analysis

Correlation Coefficient for the above table data=0.96

The value of -0.96 clearly indicates that there is perfect negative correlation between the Retail E-Commerce sales and Non E-Commerce including Brick and Mortar retail sales

The increase in Retail E Commerce sales is accompanied by a significant relative decrease in sales through Traditional retail medium.

Table –II

Year	E-Commerce Size in Billion USD	Online Retail in Billion USD
2015	22	6
2016	30	60
2020	100	70

Correlation coefficient 0.69 (Range -1 to +1)

It indicates a positive correlation. As Market size increases the online retail market size also increases significantly.

Table III

Year	Digital Buyer Penetration in India as % of total internet users	Internet penetration in India as% of Total Population
2014	30.3	18
2015	37.3	27
2016	43.8	34.8

H0: Digital buyer penetration and Internet penetration in India are independent

H1: Digital buyer penetration depends on Internet penetration

Assuming level of significance=0.01 **The value of Correlation for the above table data is 0.99.**It clearly shows that there is a perfect Correlation between the increase in digital buyer penetration in India with respect to the increase in Internet penetration in India. So digital buyer penetration depends on Internet penetration**.**

Table IV

Year	(X)Retail E-Commerce sales Volume in USD Billion	(Y) E-Commerce sales as % of total retail sales
2015	12.91	1.7
2016	16.08	2.6
2017	20.01	3.6
2018	24.94	4.4
2019	31.19	4.8

Statistical Analysis of the above Table

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.964072634
R Square	0.929436043
Adjusted R Square	0.905914724
Standard Error	0.391850954
Observations	5

ANOVA

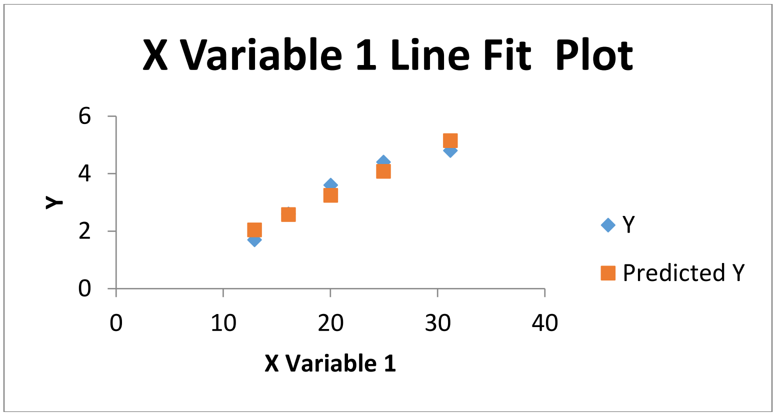
	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	6.06735849	6.06735849	39.51462274	0.008130505
Residual	3	0.46064151	0.15354717		
Total	4	6.528			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-0.15401384	0.594954963	-0.258866385	0.812483959	-2.047426063	1.739398382
X Variable 1	0.169980683	0.027040869	6.28606576	0.008130505	0.083924568	0.256036798

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	2.040436777	-0.340436777
2	2.579275542	0.020724458
3	3.247299626	0.352700374
4	4.085304393	0.314695607
5	5.147683662	-0.347683662

The above analysis depicts that any increase in E-Commerce sales volume for the mentioned period is accompanied by the increase in share of E-Commerce sales in Total retail sales Which may also mean that E-Commerce sales is eating up the share of Brick & Mortar retail sales. Although it is difficult to predict this surely.

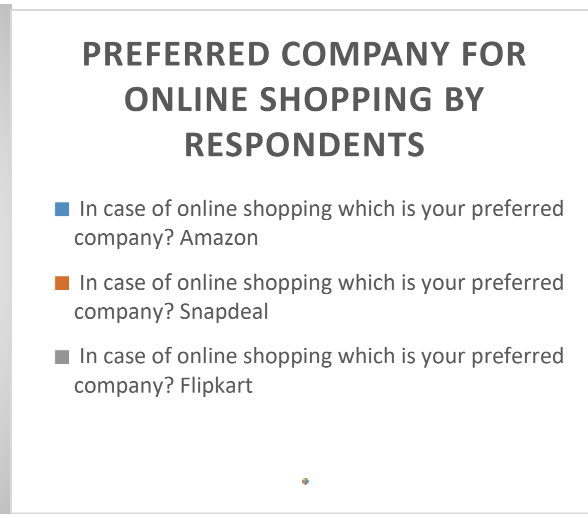


Graphical Analysis and Corresponding findings of Questionnaire

Questionnaire Data			
Total number of Respondents= 100			
Males	52		
Females	48		
18-25	62	Married	36
26-35	27	Unmarried	64
36-45	9		
46-above	2		
Educational Background			
Graduates	68		
Post Graduates	26		
Undergraduates	6		

All respondents were Urban and belonged to internet using population. Majority of them were found to buy online.
Random sampling was used predominantly Snowball sampling and Non probability random sampling

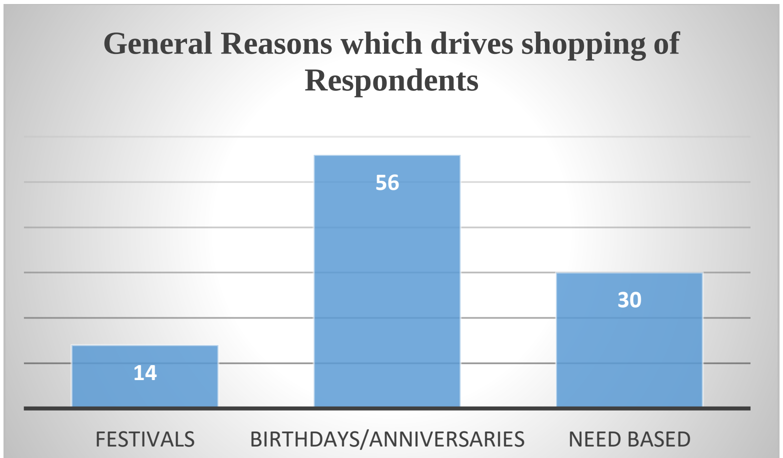

Place preferred for Shopping by Respondents
20%
80%
Physical retail shop
Online

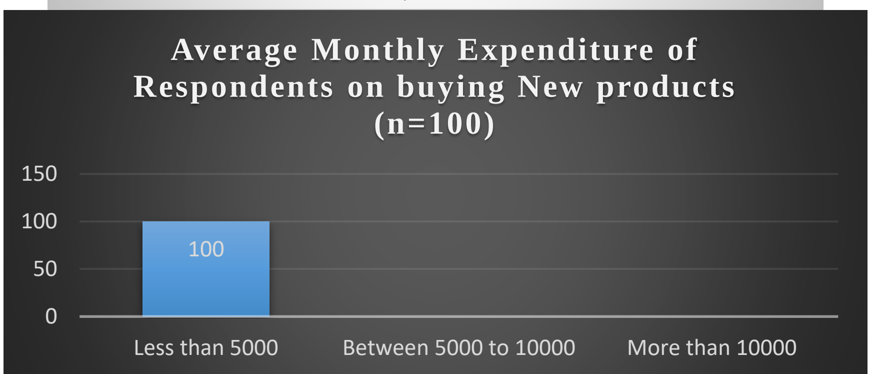

PREFERRED COMPANY FOR ONLINE SHOPPING BY RESPONDENTS
In case of online shopping which is your preferred company? Amazon
In case of online shopping which is your preferred company? Snapdeal
In case of online shopping which is your preferred company? Flipkart

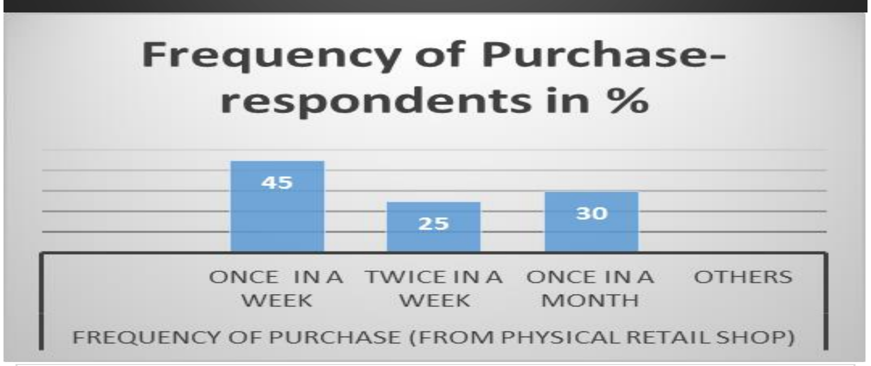

Preferred Physical Retail Store by Respondents
5%
30%
60%
In case you prefer Physical Retail store for shopping which is your preferred firm? Big Bazaar

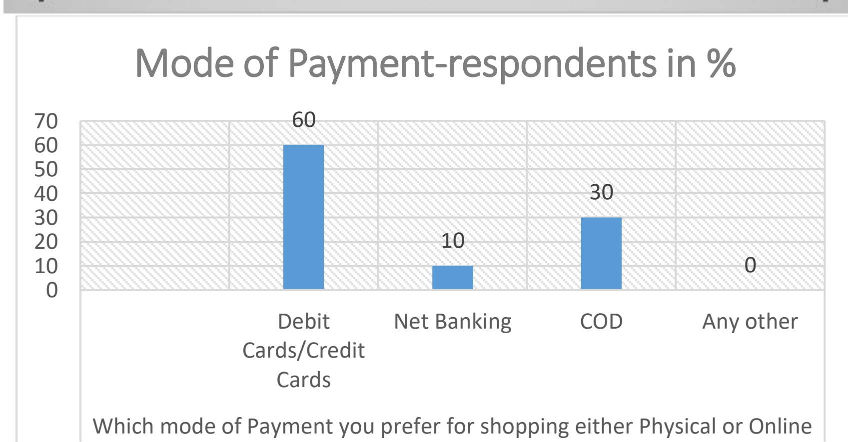

Reasons for Prefering Online Shopping
70
60
50
40
30
20
10
0
60
20
10
10
Availability of...
Quality
Low price
Convinience
Any other


Reasons to prefer Physical Retail Store for Purchase
Any other
Lack of technical...
Comfort and convinience
Feel/Experience the...
Reliability
0
10
20
30
40


General Reasons which drives shopping of Respondents
14
56
30
FESTIVALS
BIRTHDAYS/ANNIVERSARIES
NEED BASED


Average Monthly Expenditure of Respondents on buying New products (n=100)
150
100
50
0
100
Less than 5000
Between 5000 to 10000
More than 10000


Frequency of Purchase-respondents in %
45
25
30
ONCE IN A WEEK
TWICE IN A WEEK
ONCE IN A MONTH
OTHERS
FREQUENCY OF PURCHASE (FROM PHYSICAL RETAIL SHOP)


Mode of Payment-respondents in %
70
60
50
40
30
20
10
0
60
10
30
0
Debit Cards/Credit Cards
Net Banking
COD
Any other
Which mode of Payment you prefer for shopping either Physical or Online

3. APPLICABILITY

- The research findings can be applied to understand the shift of customers from Brick and Mortar Retail to E-Commerce and Online retail.
- The research also provides an insight into the level of digital penetration in the form of Internet in India and how it is the likely cause of increase in Online shopping sales.
- The research can also be used to understand that how the traditional retailers can use the digital platform and attract and retain the customers.
- The most important applicability can be in understanding the modern consumer buying behavior and incorporating the learnings in designing marketing strategies.

4. FUTURE RESEARCH SCOPE

- The above research paper leaves the further opportunity to find out the reasons for the decline in Brick and Mortar sales and how much of it is exactly due to the emergence of E-Commerce.
- There is also a scope to investigate on finding out the ways to integrate Traditional retail and online retail also known as Omni Retailing in such a way that consumers are retained.
- The research can also be done on the supply chain and distribution system of E-Commerce companies and how it can provide competitive advantage against the Traditional retail.
- With the growth of Mobile phone penetration there is a new scope created for understanding how buyer behavior of consumers is changing in different markets especially in rural landscape.

5. CONCLUSION

- The increase in Retail E Commerce sales is accompanied by a significant relative decrease in sales through Traditional retail medium.
- As Market size increases the online retail market size also increases significantly.
- There is a perfect Correlation between the increases in digital buyer penetration in India with respect to the increase in Internet penetration in India. So digital buyer penetration depends on Internet penetration. Any increase in E-Commerce sales volume is accompanied by the increase in share of E-Commerce sales in Total retail sales Which may also mean that E-Commerce sales is eating up the share of Brick & Mortar retail sales. Although it is difficult to comment on it.
- Physical retail shops are still the preferred place for shopping.
- Most of the buyers spend less than Rs5000 on buying products
- The frequency of buying for most of the online buyers is once in month and Physical buyers is once in a week
- Most of the buyers use Credit/Debit cards for shopping Online
- Most of the buyers buy online due to availability of products
- Most of the shopping is done on birthdays and anniversaries

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GAUGING AVENUES FOR INNOVATION IN ADVERTISING FOR SOCIALLY EMBARRASSING PRODUCTS: A CASE STUDY ON CONDOMS AND ADULT DIAPER ADVERTISING

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ABSTRACT

Introduction: A healthy economy becomes conducive to not only innovation, but also exploration of unconventional routes to achieve excellence. Speaking of innovation leading to revolution, modern marketing is one such field that has come to value Voice of Customer (VOC), a relatively new and under-explored tool. There remains a vast market for socially embarrassing products that has yet to be adequately tapped.

Objective:
- To understand the perception of condom advertisements among college-going youth (17-25 years of age) in India – Does it drive them to buy condoms or hinder their purchase decision?
- To gauge the awareness of adult diapers among super senior citizens (above 80) and their families; the current effectiveness of and future scope for advertisement for the product category in India.

Methodology: The research design is descriptive and analytical in nature, and employs primary as well as secondary data. The authors have focused on obtaining qualitative data and hence conducted a combination of personal and telephonic interviews which encompassed 15 questions each for both product categories.

Findings: Study 1 revealed that while 54% of respondents feel condom ads encourage students to purchase condoms, 46% feel otherwise, clearly indicating that ads bear an entertainment quotient, increasing brand recall value, but fail to drive students to purchase the product.
Study 2 revealed 30% of respondents had no idea about the availability of adult diapers, and a whopping 63.33% have either not seen ads, or do not find it satisfactory. 70% of them displayed willingness to welcome ads of adult diapers.

Implication: This research explores the focus on creative use of digital platforms for study 1 and use of specific channels such as OOH that provides a wider platform for making all product communication more easily accessible for study 2.

1. INTRODUCTION

In order for an economy to see disruptive innovation, it must be resolute in its pursuit of breaking traditions to explore the multi-faceted unconventional roads leading to largely untapped markets. Two such markets that have been barely scratched at the surface in terms of product category advertisement, as well as brand awareness leading to purchase decisions, remain waiting, ready to present us with an ocean of opportunities – the Indian Contraceptive industry and the Adult Diaper Industry.

While undertaking a study on Marketing Socially Awkward/Embarrassing products, an important aspect that needs to be considered is the extent to which the marketing content aligns to the product category and the product consumer class; another important fact is to understand the nature of the advertisements and the purpose of the same – Whether they are intended to drive sales, to increase product/category awareness, a reminder advertisement or as a reinforcement.
In each of these types, what needs to be ensured is the fact that the advertisement does not outstretch the limits of content and appeal and inadvertently/deliberately aid the embarrassment factor that the product category already carries. Thereby, it becomes important here to gauge the extent of the advertisement's effectiveness by evaluating consumer responses for the same (Run & Ting).

The Indian contraceptive industry is concentrated amongst the 4 major players such as HLL Life Care, TTK LIG, JK Ansell and Mankind Pharma. Male-condom sales in India are projected to grow 22 percent annually in the five years through March 2015 to a record 21 billion rupees ($335 million), according to a report by AM Mindpower Solutions (Condom Maker TTK Seeks Rebound After Durex Loss: Corporate India).

Yet, even as the market continues to grow and the industry pumps millions of rupees into product advertisement using the finest platforms for promotion, it hardly translates into 2-3% of sale of condoms (Local flavour: How condom marketers are making their bid , 2016).

The reasons for the same are varied. For instance, the ultimate purchase decision of a specific brand by the consumer gets moulded by the retailers' suggestion. Because of the embarrassment attached to purchase of contraceptive in India, the customers tend to "minimise the transaction time" by taking any brand that the retailer offers, says Vishal Vyas, general manager (marketing), TTK Protective Devices, maker of Skore brand (Local flavour: How condom marketers are making their bid, 2016).

Another reason is that despite high brand recall, the confused positioning of a product in the media defeats the whole purpose in the end as rightly pointed out by consumer and marketing analyst Joginder Chhabra. According to Mr Chhabra, even a top brand like Durex despite roping in Ranveer Singh for greater brand recall, still could not touch the 2% market share till 2016 since its

debut in 1997. He attributed the same to confused brand positioning as Durex was always associated with education and safe sex initiatives, while the advertisements harp on fun and pleasure (In 4 years, Skore scores enough to become India's third-largest condom brand, 2016).
The adult diaper business in India is still in a nascent stage and is estimated to be about Rs 300 crore. The Indian Adult Diaper Segment's dominant players are Nobel Hygiene and Actifit. The industry in general is expected to grow at a CAGR of 25% (Nobel Hygiene: India's first maker of adult diapers, 2015).

However, the "India Diaper Market Outlook,2021" states that even as the adult diapers market is poised to grow at a phenomenal rate owing to better healthcare standards in India, social and economic constraints continue to act as deterrents. And further adding to the dismay, advertisements of adult diapers in India remain abysmally inadequate despite a large market.

2. LITERATURE REVIEW

It is important to understand the context of the advertising adopted for the product, as in a lot of cases, it has been observed that people have been offended more because of the manner in which the product idea was executed vis-à-vis the actual product itself (Waller, Attitudes Towards Offensive Advertising: An Australian Study, 1999) (Waller, K.S., & B.Z., Advertising of Controversial Products: A Cross-Cultural Study, 2005).

Another observation is in the correlation of the advertising content with the product in question, for the consumer class in target. If the nature of product is driven by sexual needs/ or sexual attraction, chances are that the controversial advertising may seem and be perceived as less offensive by the viewers and may even aid the product awareness and buying cycle (Boddewyn & H., 1991), (Grazer & G.), (Pope, K.E., & M.R., 2004).

While India continues to remain a potentially huge market for the product category of adult diapers, the inhibitions associated with its purchase, resulting from the socio-economic conditioning is high (Nobel Hygiene: India's first maker of adult diapers, September 16, 2015).

Marketers in the U.S identify the huge scope in the Adult Diaper have begun to focus on better ways to communicate the alternate uses of Adult Diapers through Incontinence Garments, with special attention to its offerings to the younger users as well (The Adult Diaper Market Is About To Take Off, 2016).

3. RESEARCH GAP AND RESEARCH PROBLEM

Academic Literature reflects that there is little to no research on determining the reasons for embarrassment attached to viewing advertisements of socially embarrassing product categories (Puntoni, E. de Hooge, & J.M.I. Verbeke, 2015). This has drove the authors to bridge the gap by studying the effectiveness of marketing channels for the same in India.

The research problem arising out of lack of adequate literature in this regard comprise:

- Measuring effectiveness of communication through condom advertisements to persuade college-going youth to use the product using VOC.

- To determine why marketing of adult diapers is predominantly low despite a good market (cite), and whether super-senior citizens and their families are ready for advertisements on adult diapers, using VOC.

4. OBJECTIVES OF THE STUDY

The purpose of the study is:

- To understand the perception of condom advertisements among college-going youth (17-25 years of age) in India – Does it drive them to buy condoms or hinder their purchase decision?
- To gauge the awareness of adult diapers among super senior citizens (above 80 years of age) and their families, and, therefore, the current effectiveness of and future scope for advertisement for the product category in India

5. RESEARCH METHODOLOGY

The research design is descriptive and analytical in nature, and employs primary as well as secondary data. The authors have focused on obtaining qualitative data and hence conducted a combination of personal and telephonic interviews which encompassed 15 questions each for both product categories.
Convenience sampling technique is used as per which 30 super-senior citizens and their families were identified for the study of the marketing effectiveness of adult diaper. The respondents were interviewed over call and in person.
To the understand the perception of condom advertisements, survey technique as well as telephonic interviews were administered among 130 college-going youth aged between 17 and 25 years of age.
The geographic location of all respondents spans across the state of Maharashtra.

6. DATA ANALYSIS AND RESULTS

The data is segregated into two parts:
Study 1 deals with understanding consumer responses towards ads of bot products
Study 2 deals with identifying social identities as a parameter to make recommendations

Table 1: Key Findings of Condom survey

Top Five brands with highest recall value from ads	Brands Manforce Durex Kama Moods Skore	No. of Respondents 48 **57** 41 39 23
Channel Platforms	Television Commercials	89.69%

	Internet Advertising Newspaper/ magazine Ads Out of home (OOH) Ads	25.77% 15.46% 39.18%
Find condom ads embarrassing	Owing to: • Sexual Content • Nudity • Promiscuity (as perceived)	Total Respondents: 25 56% 32% 24%
Don't find condom ads embarrassing	Owing to: • Sexual Content • Nudity • Humour and Creativity	Total Respondents: 72 44.44% 11.11% 73.61%
Do condom ads adequately encourage students to use condoms?	Yes No	Total Respondents: 100 54% 46%
How can condom usage among students be encouraged via marketing channels?	• By creating positive image of use of condoms among students via commercials • By making advertisement campaigns in college campuses/ universities • By exploring other channels of advertisements to reach the youth • By casting younger actors	Total Respondents: 55 72.73% 47.27% 43.64% 27.27%
Would digital platform be more effective to advertise condom products?	• Yes • No	Total Respondents: 98 82.65% 17.35%

Analysis: While 54% feel that condom ads adequately encourage students to purchase/ use condoms, a very close figure of 46% feels otherwise. This goes to show that while advertisements largely bear an entertainment quotient, increasing brand recall value, it fails to drive students to purchase their product.

VOC as analysed by this study indicates that it is important to resort to digital platform for more effective advertisement which will directly translate into purchase decisions. Additionally, there is a need to create a positive image around condom usage among students in India, which seems to be lacking.

As can be seen from the study, 47.27% from among 55 respondents are willing to welcome advertisements of condoms on campus. This can be achieved through sponsorship of university events that sees thousands of students from across campuses. Subsequently, promotional stalls can be set up within the premise thus pursuing an unconventional route of advertisement and sale. This will not only break the social taboo of premarital sex, but also leverage the popular ‘coolness’ quotient attached to use of condoms among the youth that most brands today thrive on.

The table also shows that according to VOC, 43.64% from among 55 respondents feel other avenues of advertisements must be explored to help translate brand recall into purchase decision. Therefore, after TVCs, OOH advertising seems to be the next big platform for advertisement of condoms that can be largely utilised to improve effectiveness of advertising. As mentioned in the introduction earlier, customers tend to minimise the transaction time by taking any brand that the retailer offers. OOH advertising in select retail stores alongside tie-ups with the retailer/e-tailers could go a long way in ensuring that the ultimate purchase choice lies with the customer.

Table 2: Key Findings of Adult Diaper Survey

Awareness of adult diaper		Total Respondents: 30
	• I am aware of Adult Diapers and I use them personally/for an immediate family member	16.67%
	• I am aware of Adult Diapers though I don’t use them	53.33%
	• I am not aware of Adult Diapers	30%
Brands of Adult Diaper that you recall	• Friends • Truchek • **Do Not Know Any**	13.3% 3% **86.67%**
Which medium of advertisement have you seen the above in?	• Retail/ Medical Shop (OOH) • Friends/ family • Television/ Radio • Newspaper/ Magazine	43.33% 53.33% 13.33% 10%
Whose recommendation would you follow the most to use adult diapers?	• Medical Practitioner • Suggestions from family • Suggestions from colleagues	63.33% 26.67% 3.33%

	• Suggestions from close friends • TV commercials/ Newspaper Ads	6.67% 10%
How do you find the current advertisements of adult diapers?	• Satisfactory • Unsatisfactory/ Never seen ads	36.37% 63.33%
Would you like more advertising of adult diapers for awareness purposes?	• Strongly agree • Agree • May be • Disagree • Strongly Disagree	40% 30% 30% 0% 0%

Analysis: As can be seen in the above table, the VOC dictates that as 16.67% of respondents currently use adult diapers in their families, there is a good market available for the product category in India.

On the other hand, the fact that 30% of respondents had no idea about the availability of adult diapers in the market goes to show the lack of adequate advertisements. hile 63.33% have either never seen advertisements, nor do not find it satisfactory, the table further shows that nearly 86.67% of respondents that have seen advertisements in any of the media, could not recall a single brand name. This sounds an alarm in terms of the lack of brand visibility and painfully low brand recall value.

However, the good news is that 70% of respondents want to see advertisements of adult diapers. This demonstrates the readiness among the Indian audience to welcome advertising of a socially-embarrassing product.

7. IMPLICATIONS OF THE STUDY

Condoms

- OOH advertising provides a goldmine of an opportunity for condom products.
- An App could be developed that acts as a directory to find availability of nearest store registered with the app, the availability of SKUs, as well as a gateway to make payment and generate coupon, only to show to the pharmacist who will then get you your requirements in a paper bag. This app can be advertised and made popular by making available some exciting SKUs only for app users.
- Condom brands can start sponsoring college fests and open stalls for the same, breaking taboo and creating new channels of marketing.

Adult Diaper

- OOH advertising can be used in hospitals, clinics and pharmacies as a finding clearly indicates that medical practitioners or persons with medical knowledge are the most reliable source of advertising for senior citizens and their families.
- More banners, stand-ins, pamphlets, knowledge brochures too be given away at pharmacies to senior citizens when they come to buy medicines.

8. CONCLUSION

On analysing the insights gathered from the surveys and personal interviews it is evident that not all avenues of advertising have been adequately utilised to reach the vast majority of consumers who are clearly interested in buying socially embarrassing products.

Merely using creative content, getting popular brand ambassadors and designing jingles will only result in high brand recall value, not necessarily converting into purchase decisions. Therefore, it should be the primary aim of any brand to market itself in such a way that it makes the consumer comfortable enough to buy its product without any hesitation or embarrassment. Only then would the company successfully establish a long and fruitful relationship with his customers.

The best way to do so is to understand what the customer wants. This paper revolves around the Voice of Customer, and the researchers' findings stand testimony to the fact that the Indian audience has evolved in leaps and bounds as far as breaking social stigma is concerned. The only gap that lies can be effectively bridged using disruptively innovative marketing of embarrassing products by switching to creative and unconventional routes of communication.

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CONTENT COMPARISON OF E-COMMERCE SITES IN INDIA – A CONSUMER PERSPECTIVE

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ABSTRACT

For Area – MARKETING (MKT)
With India opening its gates to digitisation and increase in the number of internet literate citizens more appropriately called netizens, E-commerce companies are finding umpteen opportunities for growth.

These netizens are shifting their base from the brick and mortar store to online marketplace. This shift is mainly due to convenience, variety, discounts, time saving, availability, accessibility, home delivery and easy return.

The market trend is favouring e-commerce in India and is witnessing an accelerated growth in the number of companies venturing into e-commerce. Customer is the king and chooses the ecommerce site to trade with. Their choice of e-commerce sites is mainly shaped by the website content of different e-commerce firms. Moreover digitization has reinforced that content is supreme in connecting with customers. Consumers are increasingly interacting with products and product/service providers, discussing and sharing their experiences on various platforms. Hence e-commerce firms are allocating higher budgets for content creation and delivery in order to build and sustain brand image.

This study aims at understanding customer perception of content of five leading e-commerce sites of India – Flipkart, Amazon, Snapdeal, Shopclues and Paytm. The factors considered for studying the content of e-commerce sites are relevance, utility, consistency and customer engagement. It employs descriptive quantitative research. The data has been collected using a closed ended structured questionnaire from people having an experience with e-commerce purchase. The location selected for the study is Mumbai.

The major finding of the study indicates highest preference for Amazon based on website content. The customers consider genuine products, user friendly transaction flow, order tracking system and return policy as deciding factors for choosing an e-commerce site for

trading. The study also throws light on the difference in parameters considered for comparison based on demographic factors.

1. INTRODUCTION

Emerging economies are most lucrative for e-commerce. Euromonitor has identified India as one of the 5 markets that has a promising future for e-commerce (Euromonitor, 2016). Less expensive devices and internet tariff rates has led to increased penetration of internet in the Indian households; better marketing strategies by Indian e-commerce players, more options across categories, faster order delivery, convenience and cash on delivery are known as some of the main reasons for increased online demand (Euromonitor, 2016).

It is estimated that e-commerce in India will be worth USD 38 billion in 2016, 67% growth over 2015 (ASSOCHAM, 2016). Internet penetration is estimated to be 36% from 32% in 2015 and India will have about 65 million shoppers compared to 50 million in 2015 (Morgan Stanley, 2016). It is believed that 3 new internet users are added every second and India is the second largest e-commerce market after China in terms of the number of users (Morgan Stanley, 2016).

The five most valued e-commerce sites in India are- Flipkart, Amazon, Snapdeal, Paytm and Shopclues (ASSOCHAM, 2016). Experts at Google and A.T. Kearney believe that e-commerce will contribute almost 25% to organized retail by 2020 and will be GMV (Gross Market Value) 60 billion USD (IAMAI, 2016).

The customer is connected 24x7 through their smart phones, tablets and other mobile devices that are leading to a gradual evolution of e-commerce into mobile commerce and there is an issue of convenience which also leads to impulsive buying. Mumbai ranks number 1 in shopping online in India. While Delhi residents rank second, Ahmedabad came third, Bangalore fourth and Kolkata fifth in their preference for online shopping in 2015. According to the report, one of the driving factors for the online shopping is the age profile of the consumers who are young, between 15-35 years. This segment is quite net savvy and enjoys doing new type of shopping experience, virtually from their desk top in office, lap tops at home or even Android-based phones (ASSOCHAM, 2016).

Today’s social behaviour is driving consumers to use multiple channels when researching or shopping for a product. Since most of these channels are online (e-commerce, m-commerce, f-commerce, apps, and so on), the importance of website content has become increasingly significant. While it is imperative that e-commerce companies create compelling content that attracts and nurtures target audiences, it is also critical to ensure that all of these channels provide consumers with a consistent and complete experience with respect to the products they sell (Zuk, 2013).

According to Content Marketing Institute, “content marketing is the marketing and business process for creating and distributing relevant and valuable content to attract, acquire and engage a clearly defined and understood target audience – with the objective of driving profitable customer action” (Institute, 2015).

It is believed that the term content marketing was used as early as 1996 when John F. Oppedahl was addressing journalists at the American Society for editors of newspapers. Author Jeff Cannon said, “In content marketing, content is created to provide consumers with the information they seek” (Gupta, 2014).

Content marketing specialists indicate that in order to have impactful content, companies should find out topics their prospects/ customers care about. The content should of their interest. Specialists also suggest that customer engagement is the key to succeed, they recommend companies to engage with people who share and comment about them (Institute, 2015). A well-defined content marketing strategy has the ability to create long-term profitable relationship by attracting, engaging and retaining target customers.

Today, several motives drive the proliferation of research on websites as retailing channels in their own right. First, in terms of strategy, the success of e-vendors who survived the Internet bubble is making researchers and practitioners look at this autonomous retailing channel in terms of logistics and relational marketing. Furthermore, adding an Internet channel is highly likely to enhance existing organizations. Secondly, apart from "chore shopping" and "social shopping", all other attitudes which apply to shopping in a store ("leisure shopping", "utilitarian shopping", and “salesperson’s relation shopping") are all present in the Internet mental imagery of people. Finally, the new technical potential of websites could enable them "to replace a physical sales environment" with a well-designed interface able to make up for the gap between the experience of shopping in a store and virtual shopping. In that case, "web sites must be considered both a marketing communications vehicle as well as a transaction generator.

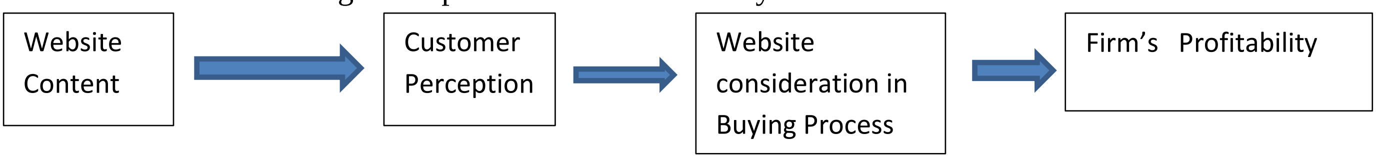
KEYWORDS: *Digital Content Marketing, E-Commerce India, Consumer Behaviour, Web Content Evaluation*

2. THEORETICAL FRAMEWORK

Web content development is the process of researching, writing, gathering, organizing, and editing information for publication on web sites. As suggested by Lou Rosenfeld and Peter Morville in Information Architecture for the World Wide Web content can be broadly defined as the stuff in a website. This may include documents, data, applications, e-services, images, audio and video files, personal Web pages, archived e-mail messages, and more. Website content of e-commerce site has been identified as all aspects of product and service related information of the website. However, there is gap in identifying what factors best define product information and service related information. This gap is more prominent in the Indian context and not many studies have been done on consumer’s perception of content of e-commerce sites in India. In this study, we therefore, have attempted to fill this existing research gap. The interfaces considered for the study are all digital devices consumer access during the buying process starting from information seeking to evaluation of alternatives, actual purchase and post purchase feedback. The sector under consideration is e-commerce only.

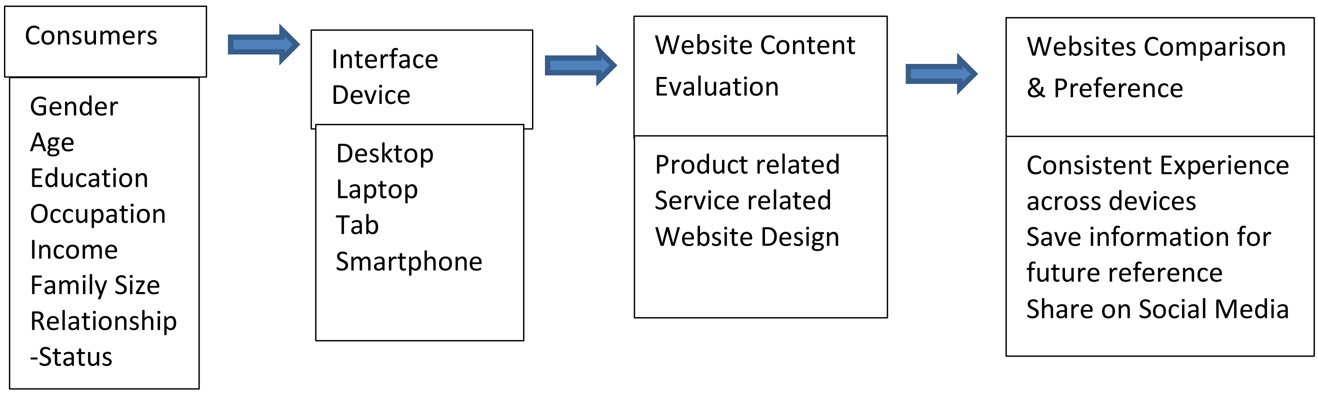
This study has taken into consideration all possible variables that have the potential to be called “website content”. These variables have been identified from previous researches. This study attempts to define what items should be considered while designing website content of Indian e-commerce sites.

This study builds on Gronroos’s (1984) model of service quality. The literature review identifies diversification in what defines website content, our study suggests methodical approach through factor analysis to identify key content for an Indian consumer. The study is based on the following assumption derived from theory:



Consumer perception of website content determines their preference to consider the website for purchase.

The study is framed as below:



Thus, the research questions are:

RQ1: What are the constructs of website content?

RQ2: What is the perception of content of the top 5 Indian e-commerce sites?

3. LITERATURE REVIEW

Many researchers have said that superior customer value is crucial for the success of the business and hence it becomes very important that businesses invest in investigating customer expectations (Cravens, G. Piercy, N.F., & S. Slater, 1997) (Higgins, 1998) (Huber, A. Herrmann, & Morgan, 2001). However, there has been contradicting view on what parameters represent digital content. A famous content marketing strategist said, “If you want to tell the world that you are a rock star, advertise. If you want to show why you are one, have great content” (Soloman, 2013). By utilizing content marketing, brands can cater campaigns and stories around buying patterns and personalities (Cohen, 2015). Hence, in order to build a powerful brand that is relevant to its customers, it is important to win their confidence and trust. Valuable content can build interest that can transform lasting relationships (Vuelo6, 2015).

Conceptually, digital content includes product and service features. The combination offers opportunity to connect and engage with target customers; in contrast, it is also challenging because of intangibility of service features. (Frieden, R. Goldsmith, S. Takacs, & C. Hofacker, 1998) (Rowley J. , 1995) (Koiso-Kanttila, 2004) Initial study on digital content revealed on-demand availability, addressability, two-way interaction, effective information delivery and seamless transactions are the main characteristics. (Kierzkowski, S. McQuade, R. Waitman, & M. Zeisser, 1996) Rangan & Adner said that accuracy, timeliness, completeness, appeal, interactivity and price are the key value drivers of digital content. (Rangan & R Adner, 2001).

This difference of opinion could be because of dynamic nature of customer value that keeps evolving over time and also because of subjectivity and ambiguity that are the characteristics of digital content. However, there seems to be a common acceptance of the fact that customer value is from the context of consumers and not from the context of manufacturer or supplier. (Jaworski & Kohli, 1993) (Khalifa, 2004) It is also very evident that customers compare many ecommerce sites via internet and the switching cost is lesser compared to offline commerce. Literature also reveals that website content in-terms of design, product offerings and offers &

promotions can be easily copied by competitors. (Gounaris, Dimitriadis, & Stathakopoulos, 2005) (Porter, 2001).

It is therefore very important to understand what consumer value with respect to the digital content so that marketers understand the decision making process and hence can add value to its own consumers. (Rowley J. , 2008) Marketers should also conduct studies to measure customer experience of their digital content. (Rowley J. , 2008) Researchers have agreed that digital content encompasses many activities. Order fulfilment and timely delivery are identified as the most important content and they are the strongest predictor of customer satisfaction (Yoo & Donthu, 2001). Order fulfilment is also the main enabler for competitive advantage (Zho, Lu, & Wang, 2009).

Website remains the only user interface through which customers interact with the ecommerce company (N., Lai, & Law, 2010). Product related content like Product Range Availability, Genuine Products, Pricing are important from service quality perspective irrespective of whether it is physical store or an ecommerce portal (Jayawardhena & Wright, 2009). Web 2.0 has enabled customers to view other customer's reviews and recommendations and customization is the key to good customer service (Jayawardhena & Wright, 2009). Effective and efficient order tracking system, shipping cost, total cost transparency and return policy are the major driving factors for an e-commerce company (Collier & Bienstock, 2006).

Ease of use of the website interface, privacy and security are given high importance by the customers of ecommerce sites (Bressolles & Nantel, 2008). The major driving factors for E-Commerce sites are return policy and customer care services (Collier & Bienstock, 2003).
The time spent by a customer on an E-Commerce site decides the potential for prospect conversion. Hence, it is imperative for the marketers to design their website so as to hold customer attention for a longer duration. This can be achieved through design and content that is interesting, satisfying, and easy to use and matches user expectations. Such a design also gives competitive edge and helps enhance brand equity of the portals. It is very important that customers can save the products of their interest in a digital cart for immediate purchase. For future purchase, customers can save relevant information in various forms like wishlist, bookmark, savelink, reviews and ratings, recommendations and subscriptions. (Toews, 2012).

Many research gaps have been identified by researchers who believe that a lot more needs to be done to understand customers of the ecommerce channel. They believe that there are many things open for research in understanding online consumer behaviour. (Dennis, Merrilees, Jayawardhena, & Wright, 2009) The prerequisite to consumer behaviour is consumer perception of content, what is the information that consumers are seeking and what is it that consumers are not seeking. (Marimon, Vidgen, Barnes, & Cristobal, 2010).

A research suggested 12 unified factors of Web site evaluation, which are ease of use, information quality, responsiveness, visual appearance, security/privacy, interactivity, trust, fulfillment, personalisation, advertising/persuasion, playfulness and technology integration. (Park & Gretzel, 2007) Forrester Research (cited in Cunliffe, 2000), estimates that poor Web design will result in the loss of 50 percent of potential repeat visits, due to an initial negative experience. (Cunliffe, 2000).

Another study focused on two mainstreams of Web site quality, which are content richness and ease of use. (Woodside, Vicente, & Durque, 2011) To increase the applicability of evaluation frameworks, Chiou et al condensed each study's dimensional factors into Park and Gretzel's

12 unified factors. (Chiou, Lin, & Perng, 2010) Their review showed that most studies conducted user-based surveys to examine a Web site, but that very few addressed strategic issues of Web site evaluation. Thus, they proposed a strategic framework as an internal evaluation to ensure consistency between web strategy and actual Web site presence, which was involved analysis of Web strategy and a hybrid approach that included evaluation during three transaction phases; the framework was designed to be applied by a specific Web site vis-à-vis its goals and objectives through a five-stage evaluation process.

One study mentioned that a website design should be addressed to simplicity and freedom of navigation provides clear, timely and accurate information in all its contents and an appearance that calls for the users' attention. (Flavian, Gurrea, & Or'us, 2009) This study found that the existing literatures do not have any commonly agreed-upon standards or techniques for website evaluation. However, website evaluation focuses on 3 main areas, which are web site attributes, organisation and technology.

The common vaiables found in the literature relating to Web site evaluation are quality, Web design and usability. These researchers believe that quality in a product or service is not what the provider or seller put into it, but what the client or customer receives from it. Thus, a Web site should try to satisfy its customers' needs in order to ensure repeat visits from them, and gain their loyalty. Gehrke and Turban suggested five major categories that should be considered when designing a website for a business: page loading, business content, navigation efficiency, and security and marketing/consumer focus (relevance). They argued that page loading is the most important factor in website design (Gehrke & E. Turban, 1999).
It is imperative for ecommerce companies to understand customer perception of their website for continuous improvement, customer engagement and competitive advantage (Barnes & Vidgen, 2002).

The time spent by a customer on an e-commerce site decides the potential for prospect conversion. Hence, it is imperative for the marketers to design their website so as to hold customer attention for a longer duration. This can be achieved through design and content that is interesting, satisfying, and easy to use and matches user expectations. Such a design also gives competitive edge and helps enhance brand equity of the portals.
This paper seeks to fill this gap in research and to contribute to understanding the perception of content of the top 5 e-commerce sites in India.

4. RESEARCH METHOD

Research Gap and Research Problem

Researchers and marketers unanimously agree that it is important to study factors driving customer engagement, satisfaction and loyalty towards an e-commerce site. However, there seems to be inconsistency in defining what measures the same. While there is diversity in constructs, it appears that there is a lack of agreement in what are the main contents that are important for the customers. There is distinct diversity in the thought process of factors that measure customer satisfaction, engagement and loyalty. Studies have been done to measure service quality of an e-commerce player and staggered variables have been employed to measure the same. Lesser studies have been found that focuses on content that are important for the customer on an e-commerce site and even lesser in Indian context.

Objectives of the Study

The study aimed at the following research objectives:

- To investigate consumer perception towards content of e-commerce site
- To compare top 5 e-commerce sites on the basis of device experience, customer preference, engagement and loyalty

Research Hypothesis

The following hypotheses have been formulated based on the above mentioned objectives:
H1: There is statistical difference in customer's attitude towards content of e-commerce sites.
H2: There is statistical correlation amongst contents of e-commerce sites.
H3: Overall ranks for the websites are significantly different.
H4: Customer Relevance for top 5 e-commerce sites is significantly different.
H5: Consistent Digital Experience across devices for the 5 websites is statistically different.
H6: Preference for sharing information on social media for the 5 websites varies.
This study aims to find the content that is important to the customer for an e-commerce site and compare the top 5 e-commerce sites in India. In order to measure consumer attitude towards content, 28 parameters of content are identified from literature review and research reports. For comparison of multi-device consistent experience, relevance and propensity of sharing information on social media, specific questions are asked. A quantitative approach is used to ensure reliability and validity of the research (Hunt, 1992).
This is thus a quantitative empirical descriptive research that aims to determine factors that are important to the customer with respect to website content of an e-commerce portal. A cross-sectional study is administered among youth using close ended structured questionnaire. As the final questionnaire had a total of 14 questions, 150 sample was found to be appropriate for the study. Convenient Quota Sampling technique was used. There were 7 questions pertaining to content marketing evaluation parameters for ecommerce sites and 7 questions based on demographic parameters.

Data Analysis & Result

The reliability of the study is .894 (Cronbach's Alpha).

H1: There is statistical difference in customer's attitude towards content of e-commerce sites.
H2: There is statistical correlation amongst contents of e-commerce sites.

Perception of Content

Principal component analysis shows that 4 out of 28 parameters emerge as most important parameters that are important to Indian consumers.
These 4 parameters are: easy search, genuine products, product range and website design (Eigenvalues: .75 and above) (See Appendix A)
It is interesting to note that Availability of products in consumer's geographical area, date of delivery, shipping cost, user friendly transaction flow and return policy are also important information for Indian consumers (Eigenvalues: .70 and above) (See Appendix B)
Hence H1 finds support
All the parameters that have emerged as important for Indian consumers are very strongly correlated (at significant value of .01) with each other. (See Appendix C).
Hence H2 finds support
H3: Overall ranks for the websites are significantly different.

E-COMMERCE SITES RANKING & DEMOGRAPHICS

Ranking

Overall ranking from the study is:

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Flipkart Ranking	150	1	5	2.20	1.198
Amazon Ranking	150	1	5	2.06	1.337
Snapdeal Ranking	150	1	5	3.09	.929
Paytm Ranking	150	1	5	3.55	.980
ShopClues Ranking	150	1	5	4.13	1.369
Valid N (listwise)	150				

Rank 1 - Amazon
Rank 2 - Flipkart
Rank 3 - Snapdeal
Rank 4 - Paytm
Rank 5 - Shopclues

Ranking & Gender

Men and Women do not have significant difference in the ranking of ecommerce sites: The overall ranking is-
(SEE APPENDIX D1 & D2)

Ranking with Age Groups

There is no significant difference between raking and age groups of the respondents.
(SEE APPENDIX E)

Ranking with Occupation

There is no significant difference between raking and occupation of the respondents.
(SEE APPENDIX F)
Similarly, we found no statistical correlation between other demographic factors (Annual Household Income, Relationship Status & Family Size) and ranking of the e-commerce websites.
Hence, we confidently conclude that ranking is independent of demographic factors.
H3 does not find support.
H4: Customer Relevance for top 5 e-commerce sites is significantly different.
Website Relevance & Demographics

Descriptive study reveals that website relevance is in the following order:

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Find What You are Looking For - Flipkart	150	1	4	1.61	.643
Find What You are Looking For - Amazon	150	1	4	1.43	.708
Find What You are Looking For - Snapdeal	150	1	5	2.49	1.002
Find What You are Looking For - Paytm	150	1	5	2.66	.940
Find What You are Looking For - ShopClues	150	1	5	3.06	.936
Valid N (listwise)	150				

Amazon emerges as the most relevant website followed by Flipkart, Snapdeal, Paytm and Shopclues.

Website Relevance & Gender

Perception of website relevance is the same for all men and women.

Website Relevance & Age Groups

All age groups perceive the 5 e-commerce studies in a similar manner

Website Relevance & Occupation

Flipkart emerged to be the only e-commerce website for which the perception of relevance is different for various occupation observed. Part-time job, home-makers and students find Flipkart more relevant than respondents who are in service and ones who have their own business. (SEE APPENDIX G1 & G2)

Website relevance & Relationship Status

Flipkart is the only e-commerce website for which the perception of relevance is different for different relationship statuses. Singles and Committed respondents find Flipkart more relevant than married respondents. (SEE APPENDIX H1 & H2)

Website relevance & Family size

Respondents with family size up-to 6 members find Shopclues more relevant than respondents who either stay alone or have family size of more than 6 members. (SEE APPENDIX I1 & I2)

We can therefore conclude that H4 finds support

H5: Consistent Digital Experience across devices for the 5 websites is statistically different.

Consistent Digital Experience

Respondents find that all the 5 e-commerce sites under consideration give consistent experience across digital devices in the following order: Amazon, Flipkart, Snapdeal, Paytm & Shopclues.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Consistent Experience - Flipkart	150	1	5	1.73	.895
Consistent Experience - Amazon	150	1	5	1.58	.884
Consistent Experience - Snapdeal	150	1	5	2.41	1.024
Consistent Experience - Paytm	150	1	5	2.55	.980
Consistent Experience - ShopClues	150	1	5	2.96	.982
Valid N (listwise)	150				

Consistent Digital Experience & Gender

Women find digital experience across devices more consistent for Snapdeal than men. For all other e-commerce sites, men and women perceive consistent digital experience in a significant similar way. (SEE APPENDIX J1 & J2)

Consistent Digital Experience & Age Groups, Occupation, Annual Family Household Income, Relationship Status and Family Size

Respondents from all age groups, occupation, annual family household income, relationship status and family size perceive consistent digital experience across devices for all the 5 e-commerce sites in a similar manner.

Hence, H5 does not find support.

H6: Preference for sharing information on social media for the 5 websites varies

Study shows that overall consumers are not keen in sharing content information on social media. However within that intent the preference is in the following order: Amazon, Flipkart, Snapdeal, Paytm and Shopclues.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Share Information on Social Media for Flipkart	150	1	5	3.95	1.294
Share Information on Socia Media for Amazon	150	1	5	3.76	1.413
Share Information on Social Media for Snapdeal	150	1	5	4.21	1.103
Share Information on Social Media for Paytm	150	1	5	4.28	1.118
Share Information on Social Media for ShopClues	150	1	5	4.43	.972
Valid N (listwise)	150				

Preference of sharing information on Social Media and Gender

Men and Women have similar intention to share information on social media. The mean difference is not statistically significant.

Preference of sharing information on Social Media and Age groups

Flipkart and Amazon are two e-commerce sites for which age groups have significant relationship with intention to share information on social media. (SEE APPENDIX K1)

Data shows that lower age group consumers have more intention to share information on social media compared to the subsequent higher age group consumer. (SEE APPENDIX K2)

Preference of sharing information on Social Media and Occupation

Consumers from different sections of occupation exhibit different preference for sharing information on social media. (SEE APPENDIX L1) It is very interesting to note that students have highest preference to share information on social media followed by service class, part-time job, business class and home-makers. (SEE APPENDIX L2)

Preference of sharing information on Social Media and relationship status & Family Size

There is no significant relationship between consumer preference of sharing information on social media and relationship status and family size.

Hence H6 finds support.

5. CONCLUSION

Ecommerce has seen an unparalleled growth in India. The changing demographics and a growing internet user base helped aid this revolution. Advancement in technology and its widespread penetration and adoption by the general mass has given a boost to the ecommerce industry. Easy availability and access of internet has been a key driver in the emergence and success of e-commerce in India.

Growth of domestic ecommerce firms like Flipkart, Paytm, Snapdeal and Shopclues demonstrates high growth potential of India e-commerce sector. Competing with these domestic players are the multinational companies like Amazon, Walmart and Alibaba which do not want to be left behind in the race for getting the maximum share of the growing Indian market. These international e-commerce players have deep pockets and longtime experience of online business and are giving a tough competition to the domestic players which are new to this field and have a limited pocket. To overcome this barrier and to be at par with these international players, Indian companies need to invest their limited dollars logically.

Going by the old basic requirements and consumer preference discounts, offers and freebies continue enjoying the status of popular strategies. To an extent this holds true for many online consumers who prefer shopping mostly during discount season. E-commerce sites run different sales festivals round the year like Amazon's Great Indian Sale, Flipkart's Big Billions Days and Snapdeal's Republic Day Sale and earn huge profits. Consumers are attracted by the variety of brands available, gift vouchers, discounts offered by various banks and other freebies. Although these are the basic requirements that every ecommerce firm should fulfill to qualify for the top ten list of e-commerce site (point of parity), content of ecommerce site acts as a differentiating factor (point of differentiation). Hence marketers need to have a constant watch on the changing market trends and modify their content to match the changing tastes of the consumers.

This paper throws light on all the factors that are preferred by consumers while transacting through an ecommerce portal. The study tries to get an understanding of the factors ranked high by consumers while choosing an ecommerce portal for purchase.

This study gives an insight into the changing trend in the e-commerce industry, which could be utilized by the marketers to formulate the right strategy to get maximum returns on their money spent. Contrary to the general belief that Flipkart holds the first rank amongst the e-commerce sites in India, this study reveals that consumers prefer Amazon over Flipkart followed by Snapdeal, Paytm and Shopclues. Easy search, genuine products, product range, website design, availability of products in consumer's geographical area, date of delivery, shipping cost, user friendly transaction flow and return policy have emerged as most important differentiating factors for content. It is also concluded that the above mentioned factors have a very strong association with each other.

Consumers belonging to younger age group (below 18 years & 18-24 years) tend to share information on social media more than others. Occupation seems to have a strong influence on the information sharing preference of consumers with students scoring the highest rank in information sharing followed by service class, part-time jobbers, business class and home-makers.

The findings of the study can be utilized by managers and marketers of the e-commerce sites in making their website content more effective and engaging.

E-commerce has also proved to be highly cost effective for marketers. Having stores online reduces infrastructure requirement, inventory management & marketing cost. Hence it is imperative on the marketers to have knowledge of the opportunities available for e-commerce in India and the steps that should be taken to overcome the challenges faced by consumers in transacting online.

With the rising demand ecommerce firms are rushing to fill the gaps in their supply chains but the question remains that in their move to match the supply with the demand and increase their profits are they somewhere creating new gaps?

It would also help the managers to focus on the right marketing strategies to target the right audience. This study also opens the way for a further study of the gap between the consumer and marketer's perception of factors affecting website content. The knowledge of this gap is vital for the success of ecommerce content strategy. In the course of this research it was also revealed that security of personal and financial information while transacting online has been a concern for many consumers which might have kept them away from these e-sites, and although in their spree to capture the entire market (online and offline consumer) e-commerce sites are working towards securing the payment gateway, the results are not 100%. Researchers could further explore the gap between consumer's need for the security gateway and the steps taken by marketers in this regard.

This study had some limitations in the form of limited sample size, the area covered was Mumbai and since it was limited to one period it was a cross sectional study, hence the results cannot be generalised.

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APPENDIX A

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.348	51.241	51.241	14.348	51.241	51.241	9.295	33.195	33.195
2	1.837	6.559	57.801	1.837	6.559	57.801	5.540	19.785	52.980
3	1.295	4.624	62.425	1.295	4.624	62.425	2.519	8.998	61.978
4	1.047	3.741	66.166	1.047	3.741	66.166	1.173	4.188	66.166
5	.950	3.394	69.560						
6	.813	2.902	72.462						

7	.785	2.805	75.267						
8	.690	2.464	77.730						
9	.668	2.385	80.116						
10	.606	2.166	82.282						
11	.567	2.025	84.307						
12	.538	1.921	86.228						
13	.472	1.685	87.913						
14	.455	1.626	89.539						
15	.379	1.353	90.892						
16	.334	1.192	92.084						
17	.312	1.114	93.198						
18	.291	1.038	94.236						
19	.269	.961	95.197						
20	.224	.800	95.997						
21	.210	.751	96.748						
22	.207	.738	97.486						
23	.168	.600	98.085						
24	.143	.511	98.596						
25	.120	.429	99.025						
26	.108	.385	99.410						
27	.089	.319	99.729						
28	.076	.271	100.000						
Extraction Method: Principal Component Analysis.									

APPENDIX B

Rotated Component Matrix[a]				
	Component			
	1	2	3	4
Website Design	.760	.188	.056	.110
Easy Search	.858	.246	-.026	.099
Product Range	.792	.259	.008	.233
Full Store Directory	.648	.104	.203	.026
Genuine Products	.813	.384	.102	-.066
Supplier Information	.208	.622	.156	.083
Availability of products in your area	.714	.402	.191	-.065
Date of Delivery	.742	.469	.077	-.129
Shipping Cost	.703	.477	.076	.010
Coupon Deals	.491	.473	.201	-.052
Multi Payment Options	.559	.542	.240	-.020
User Friendly Transaction Flow	.720	.459	.205	-.013
Cash on Delivery Option Highlighted	.589	.494	-.020	-.051
Receipt in e-mail	.354	.695	.128	-.070
Order Tracking System	.660	.592	.098	-.080
Packaging Information	.134	.774	.221	.039
Reviews & Recommendations	.475	.661	.064	-.142

Return Policy	.703	.565	.153	-.101
Total Cost Transparency	.645	.460	.243	-.203
Privacy Statement	.259	.586	.211	.062
Customer Support Online Chat	.273	.447	.490	-.050
Social Media Link	-.159	.204	.763	-.111
Page Loading Speed	.682	.294	.378	-.207
Guest Check-out	.601	.068	.367	-.186
Multi Device Friendly Website	.644	.349	.410	-.072
Pop-up Interference	-.035	-.010	.122	.889
Customization	.314	.221	.549	.142
Permission Promotion	.187	.064	.678	.247
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				

APPENDIX C – CORRELATION MATRIX

Correlations

		Website Design	Easy Search	Product Range	Genuine Products	Availability of products in your area	Date of Delivery	Shipping Cost	Cash on Delivery Option Highlighted	Return Policy
Website Design	Pearso	1	.802**	.653**	.621**	.570**	.609**	.545**	.463**	.620**
	Sig. (2-		.000	.000	.000	.000	.000	.000	.000	.000
	N	150	150	150	150	150	150	150	150	150
Easy Search	Pearso	.802**	1	.834**	.771**	.644**	.727**	.695**	.548**	.723**
	Sig. (2-	.000		.000	.000	.000	.000	.000	.000	.000
	N	150	150	150	150	150	150	150	150	150
Product Range	Pearso	.653**	.834**	1	.712**	.594**	.641**	.664**	.533**	.640**
	Sig. (2-	.000	.000		.000	.000	.000	.000	.000	.000
	N	150	150	150	150	150	150	150	150	150
Genuine Products	Pearso	.621**	.771**	.712**	1	.778**	.797**	.754**	.654**	.848**
	Sig. (2-	.000	.000	.000		.000	.000	.000	.000	.000
	N	150	150	150	150	150	150	150	150	150
Availability of products in your area	Pearso	.570**	.644**	.594**	.778**	1	.782**	.703**	.582**	.776**
	Sig. (2-	.000	.000	.000	.000		.000	.000	.000	.000
	N	150	150	150	150	150	150	150	150	150
Date of Delivery	Pearso	.609**	.727**	.641**	.797**	.782**	1	.770**	.738**	.791**
	Sig. (2-	.000	.000	.000	.000	.000		.000	.000	.000
	N	150	150	150	150	150	150	150	150	150
Shipping Cost	Pearso	.545**	.695**	.664**	.754**	.703**	.770**	1	.665**	.740**
	Sig. (2-	.000	.000	.000	.000	.000	.000		.000	.000
	N	150	150	150	150	150	150	150	150	150
User Friendly Transaction Flow	Pearso	.620**	.694**	.655**	.783**	.730**	.739**	.726**	.630**	.832**
	Sig. (2-	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	150	150	150	150	150	150	150	150	150
Return Policy	Pearso	.620**	.723**	.640**	.848**	.776**	.791**	.740**	.680**	1
	Sig. (2-	.000	.000	.000	.000	.000	.000	.000	.000	
	N	150	150	150	150	150	150	150	150	150
**. Correlation is significant at the 0.01 level (2-tailed).										
*. Correlation is significant at the 0.05 level (2-tailed).										

APPENDIX D1

Group Statistics

Gender		N	Mean	Std. Deviation	Std. Error Mean
Flipkart Ranking	Male	90	2.11	1.126	.119
	Female	60	2.33	1.298	.168
Amazon Ranking	Male	90	2.07	1.405	.148
	Female	60	2.05	1.241	.160
Snapdeal Ranking	Male	90	3.09	.920	.097
	Female	60	3.10	.951	.123
Paytm Ranking	Male	90	3.53	.889	.094
	Female	60	3.57	1.110	.143
ShopClues Ranking	Male	90	4.26	1.286	.136
	Female	60	3.95	1.478	.191

APPENDIX D2

Independent Samples Test

		Test for		t-test for Equality of Means						
									95% Confidence Interval of	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Flipkart Ranking	Equal variances assumed	2.738	.100	-1.113	148	.267	-.222	.200	-.617	.172
	Equal variances not assumed			-1.082	114.073	.281	-.222	.205	-.629	.185
Amazon Ranking	Equal variances assumed	.858	.356	.075	148	.941	.017	.224	-.425	.459
	Equal variances not assumed			.076	136.716	.939	.017	.218	-.415	.448
Snapdeal Ranking	Equal variances assumed	.184	.669	-.071	148	.943	-.011	.155	-.318	.296
	Equal variances not assumed			-.071	123.616	.944	-.011	.156	-.321	.299
Paytm Ranking	Equal variances assumed	4.307	.040	-.203	148	.839	-.033	.164	-.357	.291
	Equal variances not assumed			-.195	107.262	.846	-.033	.171	-.373	.306
ShopClues Ranking	Equal variances assumed	1.334	.250	1.343	148	.181	.306	.228	-.144	.755
	Equal variances not assumed			1.306	114.278	.194	.306	.234	-.158	.769

APPENDIX E

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Flipkart Ranking	Between Groups	5.902	4	1.476	1.028	.395
	Within Groups	208.098	145	1.435		
	Total	214.000	149			
Amazon Ranking	Between Groups	15.012	4	3.753	2.164	.076
	Within Groups	251.448	145	1.734		
	Total	266.460	149			
Snapdeal Ranking	Between Groups	2.424	4	.606	.696	.596
	Within Groups	126.269	145	.871		
	Total	128.693	149			
Paytm Ranking	Between Groups	4.088	4	1.022	1.065	.376
	Within Groups	139.086	145	.959		
	Total	143.173	149			
ShopClues Ranking	Between Groups	4.555	4	1.139	.601	.663
	Within Groups	274.779	145	1.895		
	Total	279.333	149			

APPENDIX F

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Flipkart Ranking	Between Groups	4.150	4	1.038	.717	.582
	Within Groups	209.850	145	1.447		
	Total	214.000	149			
Amazon Ranking	Between Groups	5.851	4	1.463	.814	.518
	Within Groups	260.609	145	1.797		
	Total	266.460	149			
Snapdeal Ranking	Between Groups	3.309	4	.827	.957	.433
	Within Groups	125.385	145	.865		
	Total	128.693	149			
Paytm Ranking	Between Groups	.631	4	.158	.161	.958
	Within Groups	142.542	145	.983		
	Total	143.173	149			
ShopClues Ranking	Between Groups	2.892	4	.723	.379	.823
	Within Groups	276.442	145	1.906		
	Total	279.333	149			

APPENDIX G1

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Find What You are Looking For - Flipkart	Between Groups	4.293	4	1.073	2.717	.032
	Within Groups	57.280	145	.395		
	Total	61.573	149			
Find What You are Looking For - Amazon	Between Groups	2.442	4	.610	1.225	.303
	Within Groups	72.252	145	.498		
	Total	74.693	149			
Find What You are Looking For - Snapdeal	Between Groups	4.021	4	1.005	1.002	.409
	Within Groups	145.472	145	1.003		
	Total	149.493	149			
Find What You are Looking For - Paytm	Between Groups	5.380	4	1.345	1.544	.192
	Within Groups	126.280	145	.871		
	Total	131.660	149			
Find What You are Looking For - ShopClues	Between Groups	5.102	4	1.275	1.475	.213
	Within Groups	125.358	145	.865		
	Total	130.460	149			

APPENDIX G2

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Find What You are Looking For - Flipkart	Student	46	1.50	.548	.081	1.34	1.66	1	3
	Service	82	1.62	.601	.066	1.49	1.75	1	3
	Business	17	2.00	.935	.227	1.52	2.48	1	4
	Homemaker	2	1.50	.707	.500	-4.85	7.85	1	2
	Part-time Job	3	1.00	0.000	0.000	1.00	1.00	1	1
	Total	150	1.61	.643	.052	1.51	1.72	1	4

APPENDIX H1

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Find What You are Looking For - Flipkart	Between Groups	4.680	2	2.340	6.046	.003
	Within Groups	56.894	147	.387		
	Total	61.573	149			
Find What You are Looking For - Amazon	Between Groups	2.421	2	1.210	2.462	.089
	Within Groups	72.273	147	.492		
	Total	74.693	149			
Find What You are Looking For - Snapdeal	Between Groups	1.087	2	.544	.539	.585
	Within Groups	148.406	147	1.010		
	Total	149.493	149			
Find What You are Looking For - Paytm	Between Groups	2.282	2	1.141	1.296	.277
	Within Groups	129.378	147	.880		
	Total	131.660	149			
Find What You are Looking For - ShopClues	Between Groups	1.617	2	.809	.923	.400
	Within Groups	128.843	147	.876		
	Total	130.460	149			

APPENDIX H2

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Find What You are Looking For - Flipkart	Single	99	1.51	.578	.058	1.39	1.62	1	4
	Married	44	1.89	.722	.109	1.67	2.11	1	4
	Committed	7	1.43	.535	.202	.93	1.92	1	2
	Total	150	1.61	.643	.052	1.51	1.72	1	4

APPENDIX I1

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Find What You are Looking For - Flipkart	Between Groups	.728	3	.243	.582	.627
	Within Groups	60.845	146	.417		
	Total	61.573	149			
Find What You are Looking For - Amazon	Between Groups	2.019	3	.673	1.352	.260
	Within Groups	72.674	146	.498		
	Total	74.693	149			
Find What You are Looking For - Snapdeal	Between Groups	2.992	3	.997	.994	.398
	Within Groups	146.502	146	1.003		
	Total	149.493	149			
Find What You are Looking For - Paytm	Between Groups	5.742	3	1.914	2.219	.088
	Within Groups	125.918	146	.862		
	Total	131.660	149			
Find What You are Looking For - ShopClues	Between Groups	10.545	3	3.515	4.279	.006
	Within Groups	119.915	146	.821		
	Total	130.460	149			

APPENDIX I2

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Find What You are Looking For - ShopClues	Staying Alone (PG/Hostel)	35	3.51	.887	.150	3.21	3.82	1	5
	Less than 4 Members	46	2.85	.918	.135	2.58	3.12	1	5
	5-6 Members	61	2.93	.946	.121	2.69	3.18	1	5
	More than 6 Members	8	3.25	.463	.164	2.86	3.64	3	4
	Total	150	3.06	.936	.076	2.91	3.21	1	5

APPENDIX J1

Independent Samples Test

		Test for		t-test for Equality of Means					95% Confidence Interval of	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Consistent Experience - Flipkart	Equal variances assumed	.008	.928	0.000	148	1.000	0.000	.150	-.296	.296
	Equal variances not assumed			0.000	132.369	1.000	0.000	.148	-.292	.292
Consistent Experience - Amazon	Equal variances assumed	.097	.756	.715	148	.476	.106	.148	-.186	.397
	Equal variances not assumed			.694	113.138	.489	.106	.152	-.196	.407
Consistent Experience - Snapdeal	Equal variances assumed	.988	.322	2.381	148	.019	.400	.168	.068	.732
	Equal variances not assumed			2.405	130.954	.018	.400	.166	.071	.729
Consistent Experience - Paytm	Equal variances assumed	.486	.487	-.203	148	.839	-.033	.164	-.357	.291
	Equal variances not assumed			-.199	116.867	.843	-.033	.168	-.365	.299
Consistent Experience - ShopClues	Equal variances assumed	.628	.429	1.465	148	.145	.239	.163	-.083	.561
	Equal variances not assumed			1.446	120.812	.151	.239	.165	-.088	.566

APPENDIX J2

Group Statistics

Gender		N	Mean	Std. Deviation	Std. Error Mean
Consistent Experience - Snapdeal	Male	90	2.57	1.028	.108
	Female	60	2.17	.977	.126

APPENDIX K1

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Share Information on Social Media for Flipkart	Between Groups	17.526	4	4.381	2.738	.031
	Within Groups	232.048	145	1.600		
	Total	249.573	149			
Share Information on Socia Media for Amazon	Between Groups	23.691	4	5.923	3.138	.016
	Within Groups	273.669	145	1.887		
	Total	297.360	149			
Share Information on Social Media for Snapdeal	Between Groups	6.454	4	1.614	1.339	.258
	Within Groups	174.719	145	1.205		
	Total	181.173	149			
Share Information on Social Media for Paytm	Between Groups	5.771	4	1.443	1.159	.331
	Within Groups	180.469	145	1.245		
	Total	186.240	149			
Share Information on Social Media for ShopClues	Between Groups	5.826	4	1.457	1.564	.187
	Within Groups	135.007	145	.931		
	Total	140.833	149			

APPENDIX K2

Descriptives									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	Upper Bound	Minimum	Maximum
Share Information on Social Media for Flipkart	below 18	20	3.70	1.559	.349	2.97	4.43	1	5
	18-24	35	3.77	1.239	.209	3.35	4.20	2	5
	25-30	70	3.87	1.307	.156	3.56	4.18	1	5
	31-35	10	4.10	1.287	.407	3.18	5.02	2	5
	above 35	15	4.93	.258	.067	4.79	5.08	4	5
	Total	150	3.95	1.294	.106	3.74	4.16	1	5
Share Information on Socia Media for Amazon	below 18	20	3.55	1.669	.373	2.77	4.33	1	5
	18-24	35	3.54	1.314	.222	3.09	3.99	1	5
	25-30	70	3.70	1.428	.171	3.36	4.04	1	5
	31-35	10	3.60	1.506	.476	2.52	4.68	2	5
	above 35	15	4.93	.258	.067	4.79	5.08	4	5
	Total	150	3.76	1.413	.115	3.53	3.99	1	5

APPENDIX L1

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Share Information on Social Media for Flipkart	Between Groups	20.411	4	5.103	3.229	.014
	Within Groups	229.162	145	1.580		
	Total	249.573	149			
Share Information on Socia Media for Amazon	Between Groups	19.810	4	4.952	2.587	.039
	Within Groups	277.550	145	1.914		
	Total	297.360	149			
Share Information on Social Media for Snapdeal	Between Groups	11.211	4	2.803	2.391	.053
	Within Groups	169.962	145	1.172		
	Total	181.173	149			
Share Information on Social Media for Paytm	Between Groups	14.605	4	3.651	3.085	.018
	Within Groups	171.635	145	1.184		
	Total	186.240	149			
Share Information on Social Media for ShopClues	Between Groups	11.933	4	2.983	3.356	.012
	Within Groups	128.900	145	.889		
	Total	140.833	149			

APPENDIX L2

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Share Information on Social Media for Flipkart	Student	46	3.52	1.378	.203	3.11	3.93	1	5
	Service	82	3.99	1.281	.142	3.71	4.27	1	5
	Business	17	4.71	.772	.187	4.31	5.10	2	5
	Homemaker	2	4.50	.707	.500	-1.85	10.85	4	5
	Part-time Job	3	4.67	.577	.333	3.23	6.10	4	5
	Total	150	3.95	1.294	.106	3.74	4.16	1	5
Share Information on Socia Media for Amazon	Student	46	3.37	1.496	.221	2.93	3.81	1	5
	Service	82	3.78	1.379	.152	3.48	4.08	1	5
	Business	17	4.41	1.176	.285	3.81	5.02	2	5
	Homemaker	2	5.00	0.000	0.000	5.00	5.00	5	5
	Part-time Job	3	4.67	.577	.333	3.23	6.10	4	5
	Total	150	3.76	1.413	.115	3.53	3.99	1	5
Share Information on Social Media for Snapdeal	Student	46	3.87	1.128	.166	3.53	4.20	1	5
	Service	82	4.28	1.103	.122	4.04	4.52	1	5
	Business	17	4.71	.849	.206	4.27	5.14	2	5
	Homemaker	2	5.00	0.000	0.000	5.00	5.00	5	5
	Part-time Job	3	4.33	1.155	.667	1.46	7.20	3	5
	Total	150	4.21	1.103	.090	4.04	4.39	1	5
Share Information on Social Media for Paytm	Student	46	3.87	1.293	.191	3.49	4.25	1	5
	Service	82	4.38	1.062	.117	4.14	4.61	1	5
	Business	17	4.82	.393	.095	4.62	5.03	4	5
	Homemaker	2	5.00	0.000	0.000	5.00	5.00	5	5
	Part-time Job	3	4.33	1.155	.667	1.46	7.20	3	5
	Total	150	4.28	1.118	.091	4.10	4.46	1	5
Share Information on Social Media for ShopClues	Student	46	4.07	1.162	.171	3.72	4.41	1	5
	Service	82	4.51	.906	.100	4.31	4.71	2	5
	Business	17	4.94	.243	.059	4.82	5.07	4	5
	Homemaker	2	5.00	0.000	0.000	5.00	5.00	5	5
	Part-time Job	3	4.67	.577	.333	3.23	6.10	4	5
	Total	150	4.43	.972	.079	4.28	4.59	1	5

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A STUDY ON THE MOBILE APPLICATION USABILITY BY YOUTH

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ABSTRACT

Now a days, mobile has become trend in the society, as result more and more services are being offered through mobile computing environment. The mobile devices have increased its effectiveness in recent years allowing users to perform more tasks using applications (apps). In the urban region of India, as a student enters 10^{th} or equivalent standard, most of the parents spare mobile device to him. We want to conducted a small review of mobile apps usability and measure various parameters associated with it for a specific set of age group. In this research, we will discuss on the mobile computing environment, existing security mechanisms and analyse the mobile app usage.

KEYWORDS: Usability, Mobile Computing, Mobile Apps, Usability, Software, Applications,

1. INTRODUCTION

Today, the complex computing systems are contributing everybody's life to a great extent and with a much broader base. The student life has also changed, as the mobile computing has got introduced in the education. This has also made mobile usability more critical.
Mobile devices and their applications provide significant advantages to their users, in terms of portability, location awareness, and accessibility [1]. Lower price points and improvements in the hardware and software capabilities of smart phones in particular, the so-called "handhelds," have led to tremendous expansion of the mobile and related markets. This has led to huge numbers of mobile applications ("apps") being developed over the past few years [1]. The huge increase in the number of mobile apps leads to the challenges in the quality aspect of the apps. This has also forced developer to focus on the superior quality of apps, to remain in the competition. There are many aspects to the quality of mobile apps, an important one being usability [8]. Furthermore, the architecture of these applications must take into account a number of design constraints, such as limited resources, connectivity issues, data entry models, and the varying display resolutions of mobile devices.

After fall of NOKIA, the Symbian OS has fall back and Android OS is taking lead in the mobile computing world. It goes without saying that Android and iOS are now the two main opponents

competing for the title of the most used mobile OS. As the Android loaded mobiles are cost effective compared to iOS based apple mobiles. Device cost, usability and user friendliness in Android has made number one OS in the mobile computing world.
In the past, the process was not well defined for the software systems usability and was evaluated subjectively. Researchers would select the aspects of usability to evaluate and measure what they considered important. At the same time, usability measurement and analysis methods and methodologies were being developed. Lab experiments, field studies, and hands-on measurement are some of methodologies most often applied by researchers [3][4][5][6]. Every usability evaluation method has its advantages and disadvantages. Some are difficult to apply, and others are dependent on the measurers' opinions or instruments. In addition to these challenges, mobile devices and applications change very quickly, and updated methods of usability evaluation and measurement are required on an ongoing basis.
This paper presents an analysis of present mobile computing environment and mobile usability measurement. This paper is structured as follows. Section 2 presents mobile computing environment. Section 3 presents mobile security mechanism. Section 4 presents limitation, observations on the evaluation studies surveyed. Finally, section 5 presents a conclusion and a discussion on further work.

2. MOBILE COMPUTING ENVIRONMENT

It is a wireless devices communication technology based on the use of battery powered, portable, and with a computing power. As modern technology talks about smart mobile phones, tabs, wearable computers and personal digital assistants (PDAs). It is also a human–computer interaction (HCI) by which a computing device is expected to be transported during its use. All these devices are portable and run on microprocessor with the capability of accessing computer networks wirelessly. This allows for transmission or transfer of voice, video and data. Mobile computing involves mobile communication, mobile hardware, and mobile software (firmware).

These devices have become so powerful that a term that refers to a set of computing operations that allows information accessing at any time, from any place. These computing devices can display, collect and transfer information to an information system using one or a combination of various data transfer methods. Also the mobile computing devices are connected to the Internet through wirelessly or private network. The applications that enable mobile device to display, collect and transfer are called as mobile apps.

Mobile Phone Architecture:
Mobile phone is made of single circuit board with distinct functional unit fitted on it, which is designed to optimize its performance. The cell phone electronics comprises of analogue as well as digital circuits from processors to display and keypad. [18]

Radio frequency - The radio frequency receiver and transmitter modules of the mobile phone contains all the circuits which handles does radio frequency assigned to it. Modern smart phones uses direct conversion techniques for the mobile phone receiver.

Digital Signal Processing - The DSP (processor chip) components of the mobile phone design to perform all the signal processing. In this processes the radio frequency filtering, correction for multipath effects and signal conditioning at the lower frequencies are performed.

Analogue / digital conversion - The radio frequency sections (receiver and transmitter) of the phone use analogue techniques, whereas the processing is all digital. It also does conversion of the signals between analogue and digital formats that are used in different areas. It also provides the conversion for the audio signals to and from the microphone and earpiece so that they can interface with the digital signal processing functions. The digital / analogue conversion circuit enables the voice to be converted either from analogue or to digital a digital format for the send path, but also between digital and analogue.

Control Processor - The control processor (CP) is at the heart of the design of the phone. It controls all the processes occurring in the phone. The CP monitors the keypad presses and organise the information to be displayed on the screen in response. CP has to perform major function to manage the interface with the mobile network base station. The software required for this is known as the protocol stack and it enables the phone to register, make and receive calls, terminate them and also handle the handovers that are needed when the phone moves from one cell to the next.

SIM card (Subscriber Identity Module) - is a piece of plastic that slots into the smartphone or mobile phone that provides unique ID, so that you can connect mobile phone network and make calls. The SIM is a chip with memory, stores a host of information needed to connect to a mobile phone network. "SIM card" are designed to be transferable between different mobile devices.

Power Battery - A lithium ion battery is usually made up of multiple cells which all contribute to power storage and output. Each cell is itself a small battery. During use of the phone the Li battery provides required power the mobile phone and gets drain. The CP also has capability to check and display battery potential meter on the screen. The drain the battery requires to be charging, as the electricity flows through the cells, charges the lithium ions and the battery gets charged.

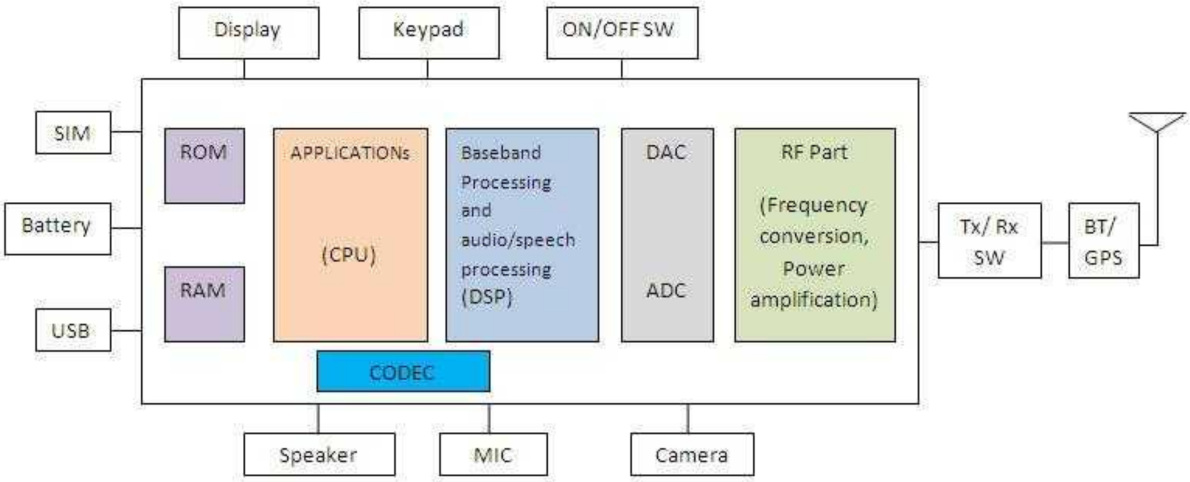

Diagram: GSM mobile phone block diagram

The basic and detail architecture of the Mobile device consists of Hardware and Software architecture. The main hardware components of the mobile phone is the application processor that controls all other components of the device such as display, keypad, power, audio , video etc. The radio signals are handled by base band processor which in turn communicates with other processors to use their functionality. Power and audio processor controls the functioning of speaker and microphone with the help of application processor. Subscriber Identification Module (SIM) contains the details about the subscriber.

There are 3 important components of a mobile architecture, [13]

Scalability – A Mobile Architecture must be able to be utilized with all recovery requirements on both large and small scale.

Secure – Encryption is important, transmission protocols must support encryption (SSL) via secure transit such as HTTPS

Reliable – Reliability is always important in all technologies and mobile architecture is no different

The mobile Operating System:
Just like desktop or laptop operating system, mobile phone also requires operating system. Much like the Linux or Windows operating system controls your desktop or laptop computer, a mobile operating system is the software platform on top of which apps can run on mobile devices. In India, most popular brands today are Android by Google, IOS by Apple Inc., and Windows by Microsoft. The mobile operating systems are specific to the mobile phone architecture which manufacturer decides.
Popular Mobile Operating Systems:

1. Android OS (Google Inc.)
2. Bada (Samsung Electronics)
3. BlackBerry OS (Research In Motion)
4. iPhone OS / iOS (Apple)
5. MeeGo OS (Nokia and Intel)
6. Palm OS (Garnet OS)
7. Symbian OS (Nokia)
8. webOS (Palm/HP)
9. Windows Mobile (Windows Phone 7)

The mobile phone operating systems are rated based on features like, Design and Interface, Apps stock and downloadable, Features, Add-ons, Security, Notifications, Customisation, Performance, Connected Devices (smart watch etc.),

3. MOBILE SECURITY MECHANISM

Security Issues: Due to increasing usage of mobile phones, the security has become concern for service provider and user. It is of particular concern as it relates to the security of the personal information stored on the mobile phone. More and more users and businesses use smartphones as communication tools but also as a means of planning and organizing their work and private life. Within companies, these technologies are causing profound changes in the organization of information systems and therefore they have become the source of new risks. Indeed, smartphones collect and compile an increasing amount of sensitive information to which access must be controlled to protect the privacy of the user and the intellectual property of the company. [13]

Mostly smartphones are preferred targets of attacks. These attacks exploit weaknesses related to smartphones that can come from means of communication from Internet. There are also attacks that exploit software vulnerabilities from both the web browser and the native operating system. Finally, there are forms of malicious software that rely on the weak knowledge of average users. Different security counter-measures are being developed and applied to smartphones. There are good practices to be observed at all levels, from design to use, through the development of operating systems, software layers, and downloadable apps. [13]

The security of wireless communication is more easily compromised than wired communication. This is further complicated if users are allowed to cross security domains, for example in a large firm where sensitive data accessible to only authorised personnel and other data that is freely accessible to anybody with a mobile computer. Secure communication over such networks is accomplished by encrypting the sensitive data usually by using an encryption key, only parties knowing the key will be given access to the data.

Mobile Security Threats: Unlike PCs, the mobile phones have threats from application, Internet (web), Wireless (Wi-Fi) Network and Physical. The application level threats involve malware, spyware, vulnerable and privacy level threats. Mobile devices are connected to the Internet and frequently use the web-based services, which also might lead to threats. Mobile device by default supports cellular networks and Wi-Fi, Bluetooth (optional). Both of these types of networks can host different classes of threats to the phone and user data. Lost or Stolen Devices are one of the most prevalent physical mobile threats.

Countermeasures: The mobile phone security mechanisms are place to counter the threats described above in this section. They are divided into different categories, such as the operating system level to the behavioural education of the user. On case to case basis the threats are prevented by the various measures. Considering the cases mentioned above, protect the system from corruption by an application, and prevent installation of suspicious or unwanted software. Hence keep the mobile operating system up to date i.e. install all available updates and patches.

4. DATA ANALYSIS AND INTERPRETATION

Research Methodology: We have conducted online and paper based survey in Mumbai-Thane region to obtain users response on mobile application usability.
Participants: There were 371 responses from participants, which include school-college going students, professionals, businessmen and housewives. The respondents were from age range from 14 to 35 years. All of them were the mobile users and use mobile for different purpose. A brief was shared about the topic was given to participants and then the questionnaire was presented for their responses.

Instruments: We have constructed a questionnaire that consisted of multiple-choice questions. The survey was conducted using language English and the analysis was presented in English. The respondents were given a list of predetermined responses from which to choose their answer. A questionnaire of 12 question sets was prepared; the responses were collected from the participants. The survey was prepared using questionpro.com (online) and paper based (offline). The Internet enabled TAB was used for survey data collection.

Data Analysis: The data analysis was performed on responses given by 371 respondents from various background, professions and experiences.

Table 1: Survey Dashboard: Response Collected

Viewed	Paper based	Online	Dropouts	Avg. Time to Complete
377	48	323	6	3.5 minutes

Table 2: Respondent's profession

Answer	Percentage (%)	Count (N)
High School Student	1%	3
College Student	92%	346
Working Professional	5%	15
Self Employed	2%	5
Housewife	1%	2
Total	100%	371

Table 3: Mobile devices used

Answer	Percentage (%)	Count (N)
Android Phone	70.84%	345
iPhone (Apple)	17.25%	84
Windows Phone	9.86%	15
Blackberry	3.08%	15
Others	5.75%	28
Total	-	487

(Percentage calculated in respect to sample size i.e.371)

Table 4: Primary use of mobile phone

Answer	Count (N)	Percentage (%)
Voice calls, SMS, MMS	111	29.92%
Email	47	12.67%
Instant Messaging like WhatsApp, HIKE	122	32.88%
Entertainment, Music, Games	95	25.61%
Internet Sharing, GPS etc.	37	9.97%
All the above	203	54.72%
Total	615	-

(Percentage calculated in respect to sample size i.e.371)

Table 5: User preference to download app

Answer	Count (N)	Percentage (%)
Free	212	57.14%
Paid (In-App Purchase)	15	4.04%
Free and Paid	97	26.15%
Use Default Apps only	33	8.89%
Total	357	-

(Percentage calculated in respect to sample size i.e.371)

Table 6: Types of Mobile Apps Download

Answer	Count (N)	Percentage (%)
Entertainment (Like YouTube, MP4 player)	272	73.32%
Games	213	57.41%
Instant Messaging (like WhatsApp, Hike)	308	83.02%
Lifestyle (Like Amazon, Health, Fitness)	191	51.48%
News	133	35.85%
Productivity (Like Office Suite, PDF Reader)	163	43.94%
Social Networking (like Facebook, Tweeter, LinkedIn)	232	62.53%
Utilities (Document Scanner, Photo Editor etc.)	177	47.71%
Total	1689	-

(Percentage calculated in respect to sample size i.e.371)

Table 7: Trigger to download mobile app

Answer	Count (N)	Percentage (%)
App store recommended (Top Chart)	161	43.40%
Friends recommendation	222	59.84%
For specific task or feature of app	116	31.27%
Star Rating / Number of Downloads	73	19.68%
User Reviews	94	25.34%
Total	666	-

(Percentage calculated in respect to sample size i.e.371)

Table 8: purpose to download mobile app

Answer	Count (N)	Percentage (%)
Access to Information / Knowledge	295	79.51%
Entertainment, Music	140	37.74%
Education	274	73.85%
Interaction, Social Networking	212	57.14%
Specific Tasks	219	59.03%
Total	1140	-

(Percentage calculated in respect to sample size i.e.371)

Table 9: How do you find apps (Select all that apply)?

Answer	Count (N)	Percentage (%)
Use Search Engine	174	46.90%
Top Downloads	178	47.98%
Read User Reviews	125	33.69%
Peer Recommendation	115	31.00%
Total	592	

(Percentage calculated in respect to sample size i.e.371)

Table 10: On average, how many apps do you download per month?

Answer	Count (N)	Percentage (%)
0-1	203	54.72%
2-5	117	31.54%
6-10	10	2.70%
More than 10	0	0.00%
Total	330	-

(Percentage calculated in respect to sample size i.e.371)

Table 11: Do you use any mobile banking app or wallet?

Answer	Count(N)	Percentage (%)
Not aware	41	11.05%
Till date not used	187	50.40%
Banking app	32	8.63%
Payment wallet	15	4.04%
Both (banking app and wallet)	81	21.83%
Total	356	-

(Percentage calculated in respect to sample size i.e.371)

Table 12: What types of payment modes, you prefer

Answer	Count(N)	Percentage (%)
Mobile Apps	27	7.28%
Cash	96	25.88%
Cheque /DD	22	5.93%
Credit / Debit Cards	65	17.52%
Bank website	30	8.09%
All the above	189	50.94%
Total	429	-

(Percentage calculated in respect to sample size i.e.371)

Table 13: Comments or Useful Apps

Comments	Apps
✓ **Google Drive, Send my file, Share-it** ✓ **Does not have smart phone** ✓ **College website is not mobile compatible. Also not updated** ✓ **As pocket money I get only cash** ✓ **blackberry sucks but no option** ✓ **Going cashless** ✓ **College cNteen doez not accept card or app payment** ✓ **trying mobile apps for payments** ✓ **recently uninstalled whatsapp** ✓ **Irani hotels are still only CASH** ✓ **parents transfer money to wallet** ✓ **basic phone** ✓ **parents transfer money to wallet**	• Garden Radio • M-Indicator • PhonePe • WeWall • Bhim • paytm • Kindle • News republic or TOI • duolingo • SHEAR IT ,XENDER ,zapia • Hangout , PDF Reader • DR OPD • Flipboard • HBR

Findings: The medium of survey was online web form and paper based, which was completed by 371 respondents. To complete the survey it has taken approx. 3.5 minutes per respondent. The 93% survey respondents were school / college students and 2% were self employed. Android based mobile phones are 70% of the sample population and then 17% are Apple-ISO (iPhone) users. The non smart phone user contributes to 5% of the sample population, due to various reasons. 54% of the users use mobile for Voice calls, SMS, MMS, Email, Instant Messaging (like WhatsApp, HIKE), Entertainment, Music, Games and Internet Sharing, GPS etc. 57% of the mobile users are interested only in free apps and 4% goes for apps which could require payment before use. 83% of the respondent population use mobile apps such as Instant Messaging (like WhatsApp, HIKE) and 51% uses Lifestyle apps Like Amazon, Health, Fitness etc. 43.40% of the users download mobile applications based on App Store recommendation (Top Chart) and 59.84 also on Friends recommendation. 54% of mobile user population downloads the app only once in moth. To question "Do you use any mobile banking app or wallet (like Paytm) for making payments? (Select all that apply)?", the 11% of population was not aware of such apps. 12% of the respondent population show intent to use only cash and 50 % of the population are ready to use all types of payment modes.

5. CONCLUSION

The mobile communication has become necessity in the society today. As a result along with basic telecom services, other services are being offered through mobile device. The research survey was conducted on the specific age group i.e. 14 to 35 years, which constitutes college going students. The research survey, measure the mobile application types, purpose, usability and peer influence to download it on the mobile devices. It has also surfaced that majority of the users are using instant messaging and social media applications like WhatsApp, Hike, Facebook heavily. The survey indicated that majority of the population use mobile phone for acquiring knowledge, gaming and messaging. The survey has measured the mobile user awareness on available financial apps. Half of the sample population is aware of financial apps like mobile banking and payment wallets, but have not used. Increase in awareness about various mobile applications and security aspects of it will certainly bring huge change in social life. It is evident that mobile computing environment going to play major role in digital transformation in India.

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IDENTIFYING THE KEY PARAMETERS FOR ACCEPTANCE OF ORGANIC FOODS IN THE INDIAN SCENARIO – AN IN-DEPTH QUALITATIVE STUDY UNDERTAKEN IN THE CITY OF MUMBAI

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ABSTRACT

India, a country with the second largest population in the world and with more than fifty per cent of the population between the age group of 35 – 40 years. Today's consumers are changing rapidly from being informed of the latest happenings, to experimenting different things in life. Agriculture is the largest employment generator to the nations and is getting more modernized through various means, today's consumers are also getting health conscious and are very concerned of the environment they live inn. Consumers are getting experimental with innovate foods like exotic foods, organic foods and bizarre foods. According to Segen's Medical Dictionary. Organic Foods is a broadly defined category of food which, in the purest form, is grown without chemical fertilizers or pesticides and sold to the consumer without adding preservatives and synthetic food enhancers, it is widely believed by advocates of alternative health care that organically grown foods are safer and more nutritious. The demand for Organic Foods in increasing mainly in metropolitan cities such as Mumbai, Chennai, Delhi, Gurgoan, Bengaluru and Pune. The increasing awareness of organic foods is also creating a new set of jobs in the market place. According to a recently published report by TechSci Research 'India Organic Food Market Forecast and Opportunities, 2017', the organic food market in India is expected to grow at the CAGR of around 19% during 2012-17. The increased growth in the Indian organic food market is also driven due to the entry of many large retail giants and also by e-commerce retail players. This research paper is trying to gauge the tastes and preferences of the Indian consumers towards organic foods through an in – depth focused group discussions (FGD's) to identify the key parameters for acceptance of organic foods in their palate.

KEYWORDS: Organic Foods, Agriculture, Organic Farming, Organic Retailing, Environment Friendly

1. INTRODUCTION

Agriculture has been the backbone of any economy in the world; it has been the main source of livelihood for centuries now and is the oldest form of employment across the globe. Agriculture plays a vital role in India's economy. Over 58 per cent of the rural households depend on agriculture as their principal means of livelihood. As per estimates by the Central Statistics Office (CSO), the share of agriculture and allied sectors (including agriculture, livestock, forestry and fishery) was 16.1 per cent of the Gross Value Added (GVA) during 2014–15 at 2011–12 prices. During Q1 FY2016, agriculture and allied sectors grew 1.9 per cent year-on-year and contributed 14.2 per cent of GVA. India is the largest producer, consumer and exporter of spices and spice products. It ranks third in farm and agriculture outputs. According to CIA Fackbook the contribution to Indian GDP composition in 2014 is 18% India accounts for 7.68 percent of total global agricultural output. India world rank is 11 and GDP is $1185.79 billion. Contribution of Agriculture sector in Indian economy is much higher than world's average of 6.1%.

The agricultural sector though contributes to India in a big way it is plagued by many issues, the lack of proper finances and too much dependency on rainfall, lack of infrastructure and supply chain coupled with middle men who are paying farmers a miniscule amount is leading to farmer suicides in many parts of the country. Over use of fertilizers and pesticides is rendering soil useless for further growth. Most of the farmers have a very small land holding and hence do not have sufficient output of the produce, leading to low quality produce, lack of mechanization has led to huge labour work and low produce of labour employed leading to huge amount of loses. India of late has started importing most of the produce, like pulses, wheat etc, which at one point of time India was self-sufficient and used to export these commodities. The Government over the years tried many methods to bring back agriculture on track, through Green Revolution, Blue Revolution, Yellow Revolution, they had a good beginning but lacked continuity.

Today, however we have seen the entrance of various private players which will change the face of Indian agriculture, with companies like Relaince, Mahindra's, Tata's entering agriculture the way agriculture is functioning will change in the years to come. Corporate farming is the new buzz word. ITC had a decade ago started e-choupal an online site to sell the produce based on the current days prevailing rate of the commodity. These organizations have also hugely invested in the retail sector giving rise to new models in supply chain is proving beneficial. Consumer are benefiting with the rise of private sector in agriculture as the retail sector is closing the gap from the farm to the table. Consumers today are getting very health conscious and are becoming more and more concerned with the environment they live in. This has bought in a major change in agriculture thought the use of organic methods in farming. This is a new breed of entrepreneurs specially the younger generation, who is coming forward and taking organic farming to the next level.

As per organicworld.net a year book on organic agriculture, Organic farming is practiced in 172 countries, and 43.7 million hectares of agricultural land are managed organically by approximately 2.3 million farmers. The global sales of organic food and drink reached 80 billion US dollars in 2014. The World of Organic Agriculture, FiBL & IFOAM – Organics International (2016): The World of Organic Agriculture 2016.
India as a country is not far behind in organic foods. Organic Food provides one of the best options for the Indian consumers concerned of the ill effects of the high use of chemicals injected into farm

foods which effects not only health but also the environment. Organic food, in India is still a very nascent and niche concept. Currently the consumption for domestic organic food is estimated to be around $200 million annually and growing at a compounded rate of 30 percent to 40 percent each year. The certified land in India for organic farming is around 4.2 million hectares.

The demand for Organic Foods in increasing mainly in metropolitan cities such as Mumbai, Chennai, Delhi, Gurgoan, Bengaluru and Pune. The increasing awareness of organic foods is also creating a new set of jobs in the market place. According to a recently published report by TechSci Research 'India Organic Food Market Forecast and Opportunities, 2017', the organic food market in India is expected to grow at the CAGR of around 19% during 2012-17. The increased growth in the Indian organic food market is also driven due to the entry of many large retail giants and also by e-commerce retail players. Organic food has been also distributed through the online channels. In India, there are more than 25 e – commerce players selling a variety of organic foods online.

As we have studied the Organic farming in both International and in India, the question here is what is organic food? Can it be defined ? Well there are many definitions of organic food products, but two important definitions are as follows:

As per the definition of the United States Department of Agriculture (USDA) study team on organic farming "*organic farming is a system which avoids or largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, feed additives etc) and to the maximum extent feasible rely upon crop rotations, crop residues, animal manures, off-farm organic waste, mineral grade rock additives and biological system of nutrient mobilization and plant protection*".

In another definition by Food and Agriculture Organization - The Food and Agriculture Organization of the United Nations (FAO) suggested that "*Organic agriculture is a unique production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity, and this is accomplished by using on-farm agronomic, biological and mechanical methods in exclusion of all synthetic off-farm inputs*".

The above two definitions combined can explain organic farming in philosophical terms which can be called "farming in spirits of organic relationship". In this technique everything is closely interconnected to one another. The basis of organic farming is placing farming with an essential bond. The bond between the soil, water and plants, soil and soil microbes, waste products, between the vegetable and animal kingdom of which the highest animal is the human being, between atmosphere, water, soil, forestry and agriculture. The combination of this bond forms the foundation of organic farming.

The organic movement in the world was more of a re-birth rather than revolt. Till the 1920's agriculture was completely organic. Natural means was used by farmers to feed the soil and to manage pest. The technique of farming was radically altered post the Second World War. During this time various researches on chemicals in the gases from was confirmed that they were able to kill insects.

Dichloro Diphenyl Trichloroethane well known as DDT was developed by Paul Miller in 1939, - chlorinated hydrocarbons first of its kind new in class insecticides to counter the pest problem. This was the birth of a new kind of farming, which promoted the heavy use of chemicals. This led to the complete extinction of the organic farming techniques. However, as industrialization of agriculture was happening, organic farming came to be reborn, this happened in the 1920's in Europe where the consumers and farmers were seeking a substitute to the industrialization of agriculture, but the organic movement in Britain only gathered pace in the 1940's.

Rachel Carson, a science writer in 1962, published a book christened Silent Spring, where she condemned the haphazard use of weed killers, pesticides and fertilizers. The book focuses on the effects leading to the vanishing of song birds. However, during the 1960's and 1970's the farmers were made to adopt the organic techniques of farming, this encouragement came from the increasing consumer awareness in nutrition and health, the launch and the increase of the green movement and the conservational and environmental issues that were the focal points.

Organic aficionados in the between of the 20th century carried the techniques of organic farming from Europe to Australia. As ill health of consumers were getting worse due to the health hazards of use of chemicals in the food and the household products, consumers insisted for organic products, which led to a sudden increase in its demand.

2. CHANGING TRENDS IN THE INDIAN BUYING BEHAVIOUR

Huge Disposable Income : The major driver for the increase in spending capacity is the huge disposable income by the consumers, specially by the middle class consumers who would love to indulge themselves in something that gives them more value. The upper class has always been the spend thrifts. As Indians are moving around the world and the increasing knowledge of things around them the consumers are not worrying on spending in products that give them either a snob value or are matter of indulgence, be it grocery, apparel etc.

Lack Of Time : With the concept of Double Income No Kids (DINKS) and Double Income Single Kids (DISK) today's Indian husband and wife's are working which is not providing for enough time for shopping and hence online is the major preference. Apart from online shopping eating out is become a norm for most of the couples who stay away from their home town. This is has also given rise to nuclear families creating a huge time constraint.

Hectic Schedules & Stress : In today's world and specially in India, the work life balance is no longer prevalent. Late night working, only weekend offs and sometime even working on weekends have let consumers with little or no time for themselves. More over the pace of life has increased to a much larger extent. Online gives them a good platform to have everything on their fingertips.

Digital Customers : Customers today have become available 24 X 7 and companies are trying to cope with this phenomenon each time there is an option. The advent of smartphones and 24X7 connectivity to the outside world has led to different lifestyles and how customers function. In Mumbai, for example the Government is planning on having Malls and shopping centers open until 12 am and may also keep the stores open 24 hours.

Experimenting With New Foods: With the advent of media, and customers travelling to different parts of the global, Indians are become experimental with the food. Today's Indians do not mind to experiment with Italian, Chinese, Continental etc. the customer today is also watching programs like Masterchef, and channels like Fox life and travel and living which are giving them a whole new perspective in life.

Non – Availability Of Products In Some Markets : Due to lack of availability in major part of the country, online purchases of grocery and other items have picked up drastically. The tie – up of Amazon with India Post has given a huge reach to the company and also provided the customer with what is not available with them nearby. Today's rural customers are also moving neck to neck with the urban counterpart and are also demanding the same products and services which gives e-commerce companies a huge benefit.

3. WHAT ARE ORGANIC FOODS?

Organic foods are defined through different features that are explained below :

1. **Ecologically Farmed**: Organic farming is in an ecologically and sustainable way. The agricultural standard which shapes up the soils fertility and averts top soil deprivation and corrosion. Maintaining the soil in good form and stopping its corrosion is important in accomplishing an ecological balance with the environment in which a farm exists and has to be as self-sustaining as possible.

2. **Chemical Free**: Organic food is grown without the usage of chemicals and pesticides, herbicides, fungicides, and fertilizers. In the organic way of farming, pests, weeds and diseases are prevented and protected though cultural methods such as good soil health for natural plant resistance, selection for physically stronger plants, crop rotation, companion planting, natural slayers and useful insects. Physical ways like, hand plucking beetles off plants, slashing, weeding, crop covers, etc are also being used in organic farming. As a second line of defense, organic farmers use natural oils, plant derived biodegradable pesticides as well. However, they are stringently examined and used under constricted restraint.

3. **Not Treated**: Organic food is not imperiled to treatment or irradiation which is a process in which food is exposed to high energy ionising radiation.

4. **Not Genetically Modified**: Organic foods do not contain any human intervention like genetic modification. However, the long term effect of genetically modified food on human health is unknown.

5. **Free of any antibiotics and growth hormones in livestock & Human Treatment given to Livestock**: Organic livestock are allowed to develop naturally without infusing growth agents. Antibiotics are not used to prevent diseases, however the use of homeopathic and natural treatment is chosen while treating illnesses. The livestock is treated humanely in organic farming; they are given access to fields, clean water, daylight and adequate freshening, allowed plenty of space to express their natural behaviour, given comfortable bedding and good shelter from dominant winds. They eat their natural diet, accompanied by organic grain. There are

lesser animals stocked on every acre of field to avert overgrazing. Organic poultry can stroll outside in place of living in a cage or packed in a shed. The exercise of de-beaking where the beaks of all birds are scorched off with a hot blade to avert them from attacking each other in a cramped cage is banned as it causes massive pain to the birds. Organic poultry are not fed food that comprises any animal wastes or growth enhancing agents or anything containing genetically modified ingredients. They are raised differently from battery hens, thus organic eggs are far less likely to contain salmonella. The cramped, unhygienic conditions in which battery hens are raised form a breeding ground for diseases such as this.

4. LITERATURE REVIEW

Organic Foods is a new phenomenon in India, its gaining importance as many consumers are aware of the health benefits related to the consumption of organic foods Gomathi M., & Kalyani S. (2013). Consumers are more concerned of the food they and are likely to consume foods that are nutritious, healthy, safe and friendly to the environment. This explains the reasons for consumer's preferences of organic food, Paul, J., & Rana, J. (2012). Have identified results that point out that availability; health and education of the demographic factors are the positive influencers of consumer attitude towards purchase of organic foods. Van Doorn, J., & Verhoef, P. C. (2015) state that quality and health are the two reasons that drive organic purchases in only a certain category, mainly with low promotional intensity. Biospheric values which show a person's concern for the environment and animal welfare are more likely to purchase organic food. Self-centeredness and price conscious act as the barriers to organic purchases. The authors Jue Chen, Antonio Lobo and Natalia Rajendran (2014) say that in China, they are very much apprehensive about food safety concerns relating to personal health. UAE as a country too is taking Organic foods very seriously Safdar Muhammada, Eihab Fathelrahmanb, and Rafi Ullah Tasbih Ullahc (2015) in the past few years; the UAE has seen an increase in the consumption of Organic Food products. The consumers in the UAE are ready to pay a price for certified organic food products. The deciding factors for consumers to pay high price for organic food were age, nationality, education; household size and income. Netravathi Vasudevaraju S, Sanjeev Padashetty (2013) states that Consumers strongly perceive organic foods as a healthier option over normal food and there is an increase in awareness in the health benefits of organic foods. There is an upward growth of organic agriculture and is becoming a new trend. Tiziana de Magistris and Azucena Gracia (2008) says that the consumer's behaviour towards organic food, in particular towards health and environment are the major factors that explain the decision making process for consumers of organic food products. V. Aslihan Nasir & Fahri Karakaya (2014) identifies the roles of various factors of the reason to purchase organic foods in a metropolitan area in Europe, socially responsible consumption, health orientation, utilitarian and hedonic consumption patterns are major reasons to purchase organic foods and spending while the controlled variable was demographics. Apart from this, environmental responsibility acts as a reasoning factor in the correlation between socially responsible consumption behavior and reason to purchase. Dana K, K Jesy Thomas, E K Thomas and K J Joseph (2009) identify if consumers are willing to pay premium for organic products in the state of Kerala along with the awareness towards organic products, the consumers awareness of organic produce and had higher income levels were willing to pay a premium price for organic produce. Bülent Ergönül and Pelin Günç Ergönül (2015) the authors have done a study in the perceptions knowledge and behaviour of consumers towards organic foods. The Turkish consumers are of the opinion that as organic products are difficult to find and expensive most of the respondents talked negatively about the same. The survey also revealed the differences that are there within the groups of consumers who have experienced organic products and the availability of these food products. In developed countries the authors Ingrid Gottschalk and Tabea Leistner (2012) find the major market for organic foods in developed countries are changed drastically. Organic foods are now present in mom & pop grocery shops, farmers market and specialized health shops. Discount super markets are the new entrants into this field particularly in Germany. Chiew Shi Wee at el.(2014) the authors identifies the interrelationship between consumer's perception, purchase intentions and actual purchase behavior in relation to organic food products. The authors have used the Theory of Planned Behavior, the five steps of consumer decision making process and earlier researches on organic foods. The reason to buy organic food was highly derived by the consumer's understanding of safety, health, environmental factors and animal welfare of the products. The authors Putrevu, Sanjay; Ratchford, Brian T (1997) aims to experiment the test a dynamic model of consumer behaviour for groceries, which combines human capital. The authors feel that there is a relation that exists with the manner in which search is done and the costs benefits.

5. OBJECTIVES OF THE STUDY

- To identify the key parameters that help consumers acceptance of organic foods

6. METHODOLOGY ADOPTED

The research methodology consisted of 2 types of research Primary and Secondary. To identify the various factors, a qualitative research was carried out to understand the parameters that influence the acceptance of Organic Foods. This was done through two Focused Group Discussions (FGD's). Each Focused Group Discussion comprised 10 members from different demographic background. The Focus Group Discussion was based on 8 question asked to both the groups, so has to maintain uniformity in the discussion which will bring out the reason for acceptance thus helping the authors to derive at a conclusion for the research. Therefore, a two way research design is followed in this study in which primarily an exploratory study is conducted, and the information is collected through literature review and through FGD's of the consumers of Organic foods in Mumbai.

The demographic factors that were taken into consideration to determine the members of the FGD were as follows :

1. The **Age** group of the members ranged from 25 years to 50 years as these are the consumers who accustomed to spending and experimenting with various foods

2. The **Gender** that was considered was both Male and Female, however, it was decided by the authors that, the preference would be given to Females more as they still are the ones who do the grocery shopping.

3. The **Occupation** considered for the FGD were housewifes, working professionals and business persons.

4. The **Income** of the members considered was from a minimum of Rs. 6 lakhs per year onwards.

5. The **Education** level considered was at least a Graduate to a Post Graduate

The FGD was conducted based on questions designed by the authors like

1. From where have you heard about organic food ?
2. How often have you consumed organic foods ?
3. What is your understanding of organic foods ?
4. What is the most important reason for consumption of organic foods ?
5. Do you find any benefits of organic foods ?
6. What do you see / check while you pick up organic foods. ?
7. What are the main reasons that push you to purchase organic food ?
8. How has organic foods benefit you and the society at large ?

The outcomes of the FGD were quite interesting.

FGD – 1

Sr. No.	Questions	Responses
1.	From where have you heard about organic food ?	Most of the respondents of this FGD said that through Friends, Online, Retail Stores & watching food programs
2.	How often have you consumed organic foods ?	Consume daily as it is added to the grocery list.
3.	What is your understanding of organic foods ?	Grown without any pesticides or any other chemical and no harmful substances are used.
4.	What is the most important reason for consumption of organic foods ?	Health & Safety
5.	Do you find any benefits of organic foods ?	Most of the respondents says Yes, However an equal number also said not sure.
6.	What do you see / check while you pick up organic foods. ?	Nothing pick up blindly based on the packet, Not aware of any certification for Organic.

7.	What are the main reasons that push you to purchase organic food ?	Apart from Health and Safety. 1. Environmental Friendly, 2. Good Quality, 3. It's nice to talk about in society. 4. Feels Good (doing some good work indirectly).
8.	How has organic foods benefit you and the society at large ?	1. Farmers was the first choice, apart from that it was the Government.

Table – 1: Focus Group Discussion 1

FGD – 2

Sr. No.	Questions	Responses
1.	From where have you heard about organic food ?	Online, Others were using so I tried it, Travelling
2.	How often have you consumed organic foods ?	Once in 2 months because of unavailability
3.	What is your understanding of organic foods ?	No harmful elements used, grown though natural methods
4.	What is the most important reason for consumption of organic foods ?	Safety and Quality
5.	Do you find any benefits of organic foods ?	Most of the respondents say not sure. Only 2 said Yes
6.	What do you see / check while you pick up organic foods. ?	Reading benefits from the pack and checking for some Government approval
7.	What are the main reasons that push you to purchase organic food ?	Apart from Safety and Quality.1. Health 1. Environmental Friendly, 2. Just tried out 3. Parents said 4. Its good when we speak in social gatherings.
8.	How has organic foods benefit you and the society at large ?	1. Farmers was the first choice, apart from that it was the Society and Government.

Table – 2: Focus Group Discussion 2

7. LIMITATIONS

Though the research was based on qualitative method, there were certain limitations

1. It was done in the city of Mumbai only, which does not represent the entire country

2. The respondent's answers may be bias to a certain extent

Conceptual Framework / Proposed Model based on FGD outputs

The conceptual frame work was designed based on the responses got from the FGD's conducted which gave us an indication of the reasons that consumers would accept the organic foods.

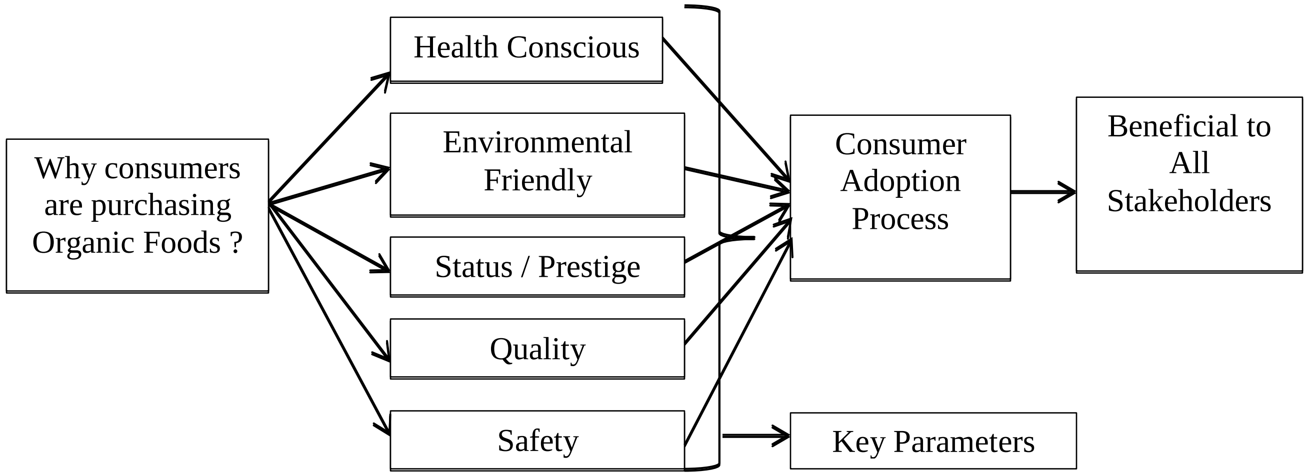

Fig 1. Conceptual Model / Proposed Framework

Why consumers are purchasing Organic Foods ?

This was framed basis the objective of the study and the reasons that consumers would purchase organic foods (Reason to Buy); to understand the consumer's acceptance of this the output of the same is mentioned in the table 1 and table 2 of the responses of the FGD.

Awareness : The Awareness levels of consumers are pretty high, though consumers are not exactly aware of the health benefits but they are sure that organic foods have benefits for sure. This they have got to know from various sources.

Pricing : though the prices of organic foods are very high there is a willingness to purchase from the super markets or online.

Availability : The only hitch that consumers face is that organic food is not available on a regular basis and hence causes problems for the consumer.

Once the Objectives are set, we understand the key parameters that are considered the acceptance for purchase of Organic foods

8. KEY PARAMETERS

- **Health Conscious :** The outcome of the FGD clearly states that consumers are getting health conscious and thus providing importance to organic foods. This is one of the major reasons organic foods are getting accepted with the consumers. Apart from this the various types of diet for eg. Keto Diet and Vegan Diet are fueling the growth of organic foods.

- **Environmental Friendly :** The environmental friendly is another reason for accpetance of organic food. Consumers feel that they are helping the already polluted Mother Earth by consuming organic foods, which is grown naturally. This is also beneficial for the farmers as well.

- **Status / Prestige :** Consumers have also become smart and do not want to stay back in the latest happening be it Bollywood, Hollywood or even Food. Consumers are keeping themselves abreast of the latest in the foods as well. The fueling factor to this is clearly shown by the fact that a lot of people are travelling abroad and also a lot of people are watching the new channels like travel and living which is providing information regarding organic food.

- **Quality :** Consumer feel that organic food has quality and thus they cannot be cheated with the kind of traditional food. The consumers feel that the approval of Government bodies would add to the quality of the products that are supplied through organic foods.

- **Safety :** Consumers believe that safety is one of the major benefits that pushes them to purchase organic foods. They feel that organic foods is always done with utmost safety and precautions which enhances the health factor of organic foods.

9. CONSUMER ADOPTION PROCESS

The consumer adoption process starts from the key parameters derived from the focused group discussions. However, a simple model of the consumer adoption process can be derived for organic foods.

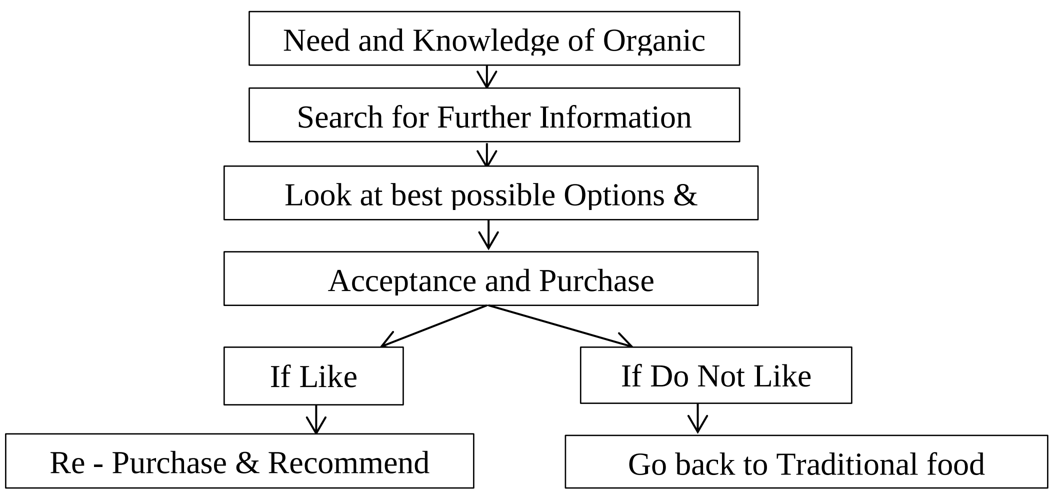

Fig 2. Consumer Adoption Process for Organic Food

The final outcome of the proposed model is the benefits to all the stakeholders.

Beneficial to All Stakeholders

The stakeholders involved in the process are benefited through the acceptance of organic foods. They can be

Farmers : the farmers will be most beneficial in this case and thus which will help them to use less of harmful material to grow the crops and they can fetch the right price

Government : They can give subsidies to farmers and not to companies manufacturing pesticides which will help the farmers benefit.

Entrepreneurs : There is a new breed of entrepreneurs that are focusing on organic foods and this will continue to grow as they get support from consumers for e.g. Morrarka Organics

Corporates : Many organizations will benefit through this as many of the corporates are entering Organic Foods for e.g. Arvind Mills is one of the companies entering organic in a big way.

Consumers : The consumers will benefit as it would provide them with health benefits. Consumers will also have long term benefits of eating the healthy organic food

Environmentalist : The environmentalist are pushing for the growth of organic foods. This is because it causes less harm to the environment and its ecological which protects the environment as a whole.

Retailers : The retailers can also start stocking organic foods not all of them are due to various issues. Though the organised retailers have created organic food as a separate category all together, it is still very small. This still has to percolate to the unorganized level which is a higher percentage in India.

10. KEY FINDINGS

The key findings of the 2 FGD's conducted are below

- Word of Mouth and online are the major two reasons consumers are aware of organic foods
- The consumers are ready to purchase and consume organic foods daily however; they find availability as an issue.
- The consumers have a fair understanding of organic foods
- The major reasons that came out were Health, Safety and Quality
- Most of the consumers are unaware of the benefits of organic foods
- Consumers were off the opinion that the benefits would for the Farmers, Government and society at large.
- The reasons apart from the health, safety and quality were environmental friendly, as prestige factor, the feel good factor and helping the environment

11. MANAGERIAL IMPLICATIONS OF THE RESEARCH

Based on the inputs provided by the paper, the various stake holders involved in the developed of organic foods as a category will be benefited. This paper will further be helpful for people who are already involved in the business to understand customers' acceptance of the organic foods which will not only provide them information on marketing but also provide them with certain understanding of how and what consumers are expecting out of the category of organic foods. This paper will further help the retailers to understand if this category will work in the future or not. The Government will benefit to understand the benefits of organic foods, thus bringing in stringent rules for organic products.

12. SCOPE FOR FUTURE RESEARCH

This paper can be further researched and a primary research along with a structured questionnaire can be carried out based on the proposed model, which will provide further impetus for the growth of organic foods thus helping the government, retailers, corporates and environmentalist to benefit on the whole.

13. CONCLUSIONS

The market of organic foods in India is at nascent stage, and many consumers are aware about the benefits associated with the products and the environment we inhabit. The results of the FGD suggested that there is a need for an apex body by the government, marketers, and environmental agencies to give the quality assurance to consumers for using eco-friendly products, which are good for their health and at the same time safe for the environment. According to the results of the FGD, the acceptance of organic foods is due to increased health benefits and also safety and environment benefits. The identified key parameters of acceptance of organic food products provided by the present study will offer guidelines to the marketers for understanding the attitude and preferences of consumers towards organic food products.

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MOBILE APPS AND LOCAL LISTING AS A VEHICLE FOR PROMOTIONAL STRATEGIES

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ABSTRACT

Companies are always looking for ways to increase customer engagement by increasing their interaction with them. This is with a hope to better sales. Apps help in increasing the awareness about the brand; customers can browse and find products that they want. Apps help in informing users of new products and offers, reach out to different demographics, improve customer service and thus foster loyalty. Apps help in generating data on customer's behaviour, provide location data on users which can be applied to businesses and aids in analytics. Local businesses can tap into the online space to gain more clients as they become visible to those who are looking for what they are offering. Another important area is citations and business directories which can lead to more traffic being referred to your website thus generating more leads. This paper attempts an exploratory study through a sample of 195 retailers in Mumbai. Such a study will help to gain an insight into whether using the internet as a marketing tool for businesses through Apps and Local Listings are prevalently used by retailers to promote their businesses. Also studied are the types and periods of promotions offered by retailers. An analysis of data shows that Discovery / Search Services are being adopted by retailers and have immense scope for growth in this smart phone - mobile connected world.

KEYWORDS: Mobile Apps, Local Listings, Online Promotions

1. INTRODUCTION

Research studies conducted by Nielsen shows that Apps are playing a big role in the lives of smart phone users with social networking and search dominating the time spent on apps. [i] The proliferation of mobile devices presents marketers with new opportunities to connect with consumers by creating new apps for their use. A brand's offline experience i.e. in-store can be complimented by a mobile app marketing strategy. This can help drive e-commerce and help connect a brand with its customers. Mobile apps and websites have become important to both consumers and marketers.[ii] Hence, businesses need a mobile presence to stay connected with their customers. Apps help businesses reach new audiences who can experience their brand for the first time. Apps can help showcase products and services. The high costs of App development can be prohibitive for small businesses and apps are often abandoned by customers who download them. According to Statista, as of June 2016 Android users were able to choose from 2.2 million apps available for download in leading App stores.[iii] Hence it makes sense for businesses to list on Apps and Websites which offer listing. This help to connect at a local level making sure that the customer can find you. It serves as an important search engine optimization technique as these are visible on the first page of Local Google search results.[iv] Consumers can find your location and thus traffic gets diverted towards your business. Offers and discounts can be promoted to customers. Local listing is an easy process and can help in building brand identity.

2. REVIEW OF LITERATURE

Studies have been conducted on mobile app marketing insights from a consumer point of view and their usefulness to businesses. Blogs extol the virtues of businesses creating their own apps or listing on online directories. Blogs have also delved into the negative elements of location-based services that are; it prevents web-based companies from participating i.e. the business must be a brick and mortar store.[v] Think with Google conducted a study on Mobile App Marketing Insights: How Consumers Really Find and Use Your Apps wherein it was found that most installed Apps are not used often, that Apps play a role during the purchase path, and that incentives can renew app usage among abandoned users.

a. Need for Study

There is a need for studies in the area of usefulness of tie ups with apps and websites for businesses to take decisions on investing time and money on the same. Listing on many Apps is offered for free initially and then subsequently they are charged for by the developer. Listing on websites is done through a process of onboarding sellers and the websites charge a commission on sales of products.

b. Key Terms Definition

The word "app" is an abbreviation for *application*. An app is a piece of software. It can run on the internet, computer, or on phone or any other electronic device. The word "app" is a more modern usage, but this is really the same thing as a software program. In modern use, most people refer to apps as applications or software programs that run specifically on phones or other mobile devices.[vi]

c. Objectives of the Study

This exploratory paper aims to study whether businesses have tie ups with apps / websites and their benefits, problems and usefulness in bringing in new business.

3. METHODOLOGY

A convenience sample of 195 retailers in Mumbai was surveyed using a questionnaire cum interview schedule for this study. The outlets surveyed spanned various categories of clothing, food & beverages, accessories, health & beauty, and electronics shops to gain a flavor of current trends among retailers towards using the internet as a marketing tool for businesses through apps, local listings and websites.

4. FINDINGS AND DISCUSSION

4.1. Type of Outlets: Clothing outlets (35.4%) were the largest surveyed and this is followed by Food & Beverage (30.8) **(See Table 4.1).**

Table 4.1

Type of Outlet

		N	%
1	Clothing	69	35.4
2	Food & Beverages	60	30.8
3	Footwear	23	11.8
4	Bags	15	7.7
5	Health & beauty	11	5.6
6	Hotel	6	3.1
7	Electronics	4	2.1
8	Jewellery	2	1.0
9	Gifts	2	1.0
10	Automobile	1	.5
11	Entertainment	1	.5
12	Home & living	1	.5
13	Total	195	100.0

4.2. Location of Outlets

The largest numbers of outlets are from Peddar Road (19.0%), Kurla Phoenix Mall (17.4%), Bandra (16.4%), and Kurla (13.3%). The outlets in Kurla Phoenix Mall have been distinguished from Kurla as the former are situated in Malls and the latter are standalone shops **(See Table 4.2).**

Table 4.2

Location of Outlets

		N	%
1	Peddar Road	37	19.0
2	Kurla Phoenix Mall	34	17.4
3	Bandra	32	16.4
4	Kurla	26	13.3
5	Sion	15	7.7
6	Matunga	13	6.7
7	Dadar	12	6.2
8	borivali	7	3.6
9	Andheri	6	3.1
10	Chawpatty	6	3.1
11	Haji Ali	5	2.6
12	Charni Road	2	1.0
13	Total	195	100.0

4.3. Subscribed / Tie Up with any Apps

A substantial number of outlets (64.1%) have a tie up with Apps. The remaining (35.9%) represent a potential market for apps / websites to convert and onboard on to their sites **(See Table 4.3).**

Table 4.3

Subscribed / Tie Up with Apps / Websites

		N	%
1	Yes	125	64.1
2	No	70	35.9
3	Total	195	100.0

4.4. Tie Up with Apps

When the iPhone launched in 2007, Steve Jobs famously told developers that they could write "apps" for the device by creating Web apps. In March 2008 Apple laid out the roadmap for programmers to write their own apps and announced that it would provide a storefront through which developers could sell their software. The App Store launched on July 10, 2008, with a whopping 552 apps on its virtual shelves; the most common prices were $1 and $10, and there were a mere 135 free apps.[vii]

Of those respondents who have tie ups the largest number have listings on Just Dial (46.7%) which is a multiple platform local search engine. Just Dial started in 1996 focusing on voice enabled local search (dial-for-information service) and marketing. They launched the web based version (i.e.

official website www.justdial.com) in 2007. [viii] Their app was launched in February 2016. [ix] Zomato a restaurant search and discovery service founded in 2008 has captured a substantial market (26.7%) **(See Table 4.4)**

Table 4.4

Tie Up with Apps

		Tie up		No Tie up		Total	
	Apps	N	%	N	%	N	%
1	JustDial	91	**46.7**	104	53.3	195	100.0
2	Zomato	52	26.7	143	73.3	195	100.0
3	Nearbuy	20	10.3	175	89.7	195	100.0
4	Burrp	18	9.2	177	90.8	195	100.0
5	CouponDunia	10	5.1	185	94.9	195	100.0
6	DineOut	7	3.6	188	96.4	195	100.0
7	Zakoopi	4	2.1	191	97.9	195	100.0
8	NearU	3	1.5	192	98.5	195	100.0
9	Mydala	2	1.0	193	99.0	195	100.0

4.4.1. Cross tabulation: Type of Outlet by Tie Up / Listing on Apps

Out of the twelve categories of Type of Outlets two (i.e. Automobile and Home & Living) do not have any tie up / listing on apps at all. The remaining ten all have a tie up and are listed on Just Dial to some extent or the other. Nearbuy has (10.3%) a spread across six categories of types of outlets. But Zomato has a larger number of respondents with tie ups (26.7%) spread across fewer categories as it focuses on ordering food online. Burrp (founded in 2006), Dineout (founded in 2012), Mydala (established in November 2009), and CouponDunia (launched in Boston, USA in December 2010 and moved operations to India in August 2012) are all present in the food & beverage segment but have a lot of catching up to do in terms of acceptance by outlets **(See Table 4.4.1).**

Table 4.4.1

Crosstabulation: Type of Outlet By Tie Up / Listing on Apps

		Tie Up / Listing on Apps																	
	Type of outlets	**JustDial**		**Nearbuy**		**Zomato**		**Zakoopi**		**NearU**		**Burrp**		**DineOut**		**Mydala**		**CouponDunia**	
1	Food & Beverages	21	35.0%	9	15.0%	47	78.3%			2	3.3%	18	30.0%	7	11.7%	2	3.3%	10	16.7%
2	Health & beauty	10	90.9%			1	9.1%												
3	Hotel	5	83.3%	2	33.3%	4	66.7%												
4	Footwear	7	30.4%	1	4.3%					1	4.3%								
5	Clothing	35	50.7%	5	7.2%			4	5.8%										
6	Bags	7	46.7%	2	13.3%														
7	Entertainment	1	100.0%	1	100.0%														
8	Electronics	1	25.0%																
9	Jewellery	2	100.0%																
10	Gifts	2	100.0%																
11	Total*	91	**46.7%**	20	10.3%	52	**26.7%**	4	2.1%	3	1.5%	18	9.2%	7	3.6%	2	1.0%	10	5.1%

% within Type of outlets, * Each out of 195

4.5. Tie Up with Websites

Amongst the Websites respondents mentioned tie ups with Amazon (12.8%) which is leading followed by Jabong (10.8%). Unlike tie ups with apps which are for search and marketing, tie ups with websites facilitate sales directly through listing on them **(See Table 4.5).**

Table 4.5

Tie Up with Websites

		Tie up		**No Tie up**		**Total**	
	Websites	N	%	N	%	N	%
1	Amazon	25	12.8	170	87.2	195	100.0
2	Jabong	21	10.8	174	89.2	195	100.0
3	Snapdeal	20	10.3	175	89.7	195	100.0
4	Flipkart	13	6.7	182	93.3	195	100.0
5	Myntra	11	5.6	184	94.4	195	100.0
6	Paytm	2	1.0	193	99.0	195	100.0

4.5.1. Cross tabulation: Type of Outlet by Listing on Website

Of the twelve categories of Type of Outlets five i.e. Footwear, Bags, Clothing, Electronics, and Food & Beverage have listing on websites. Out of 195 outlets only two, Food and Beverage outlets, have a tie up with Paytm. The Bags outlet category is predominant on four websites **(See Table 4.5.1).**

Table 4.5.1

Crosstabulation: Type of Outlet By Listing on Websites

	Type of Outlet	Amazon				Flipkart				Myntra				Snapdeal				Jabong			
		Tie up		No Tie up		Tie up		No Tie up		Tie up		No Tie up		Tie Up		No Tie up		Tie Up		No Tie up	
1	Footwear	4	17.4%	19	82.6%	3	13.0%	20	87.0%	0	0.0%	23	100.0%	4	17.4%	19	82.6%	4	17.4%	19	82.6%
2	**Bags**	5	**33.3%**	10	66.7%	1	6.7%	14	93.3%	3	**20.0%**	12	80.0%	4	**26.7%**	11	73.3%	4	**26.7%**	11	73.3%
3	Clothing	15	21.7%	54	78.3%	8	11.6%	61	88.4%	8	11.6%	61	88.4%	11	15.9%	58	84.1%	12	17.4%	57	82.6%
4	Electronics	1	25.0%	3	75.0%	1	25.0%	3	75.0%	0	0.0%	4	100.0%	1	25.0%	3	75.0%	1	25.0%	3	75.0%
5	Total	25	12.8%	170	87.2%	13	6.7%	182	93.3%	11	5.6%	184	94.4%	20	10.3%	175	89.7%	21	10.8%	174	89.2%

% within Type of outlets

4.6. Benefits of Tie up With Apps / Websites

Overall 64.1% outlets have tie ups. Of this a sizeable number of outlets (54.4%) have benefitted from tie ups with apps and websites **(See Table 4.6).**

Table 4.6

Benefit of Tie Up With Apps / Websites

		N	%
1	No Tie Up	70	35.9
2	Tie Up - No Benefit	22	9.7
3	Tie Up - Yes Benefit	103	**54.4**
4	Total	195	100.0

4.7. Benefits of Listing on Apps / Websites

The main benefit of listing is New Customer Acquisition (54.4%) followed by Help in Locating Shop (27.2%). Other benefits are attracting customers through offers and discounts, branding and promotion which lead to awareness of the outlets and very few reported a direct increase in sales (6.2%) **(See Table 4.7)**

Table 4.7

Benefits of Listing on Apps / Websites

New Customers Acquisition			Helps Locate Shop			Attract Customers Offers & Discounts			Branding, Promotions & Creates Awareness			Increase Sales		
	N	%		N	%		N	%		N	%		N	%
New Customers Acquistion	106	**54.4**	Locate Shop	53	**27.2**	Attract Through Offers & Disc	40	**20.5**	Reinforces Brand / Creates Awaremess	21	**10.8**	Increase Sales	12	**6.2**
No Benefit	19	9.7	No Benefit	72	36.9	No Benefit	85	43.6	No Benefit	104	53.3	No Benefit	113	57.9
No Tie Up	70	35.9	No Tie Up	70	35.9	No Tie Up	70	35.9	No Tie Up	70	35.9	No Tie Up	70	35.9
Total	195	100.0	Total	195	100.0	Total	195	100.0	Total	195	100.0	Total	195	100.0

4.8. Increase in New Customers Due to Listing on Apps / Websites

Of those outlets benefiting from new customer acquisitions due to listing only occasionally and rarely, taken together account for (18.4%). Those who get new customers regularly are (35.9%).

Table 4.8

Increase in New Customers Due to Listing on Apps / Websites

		N	%
1	Get New Customers	70	**35.9**
2	Occasionally Get Customers	26	13.3
3	Rarely Get Customers	10	5.1
4	No Benefit / Don't Get Customers	19	9.7
5	No Tie Up	70	35.9
6	Total	195	100.0

4.9. Problems Faced with Listings

Outlets not getting customers at all account for (9.7%). Only (2.6%) reported problems due to outdated company details, offers, and vouchers. The main issue appears to be lack of sufficient increase in customer acquisition.

Table 4.9

	Problems Faced with Listings	N	%
1	No Problems	67	34.4
2	Only Occasionally Get Customers *	24	12.3
3	Do Not Get Customers	19	9.7
4	Rarely Get Customers	10	5.1
5	Outdated Co Details, Offers, Vouchers	5	2.6
6	No TieUp	70	35.9
7	Total	195	100.0

Note* + Two Respondents who also faced problems with Outdated Co Details, Offers, Vouchers (See Table 4.8)

4.10. Types of Offers

Largest number of outlets offer discount (38.5%) followed closely by discount on bulk purchases (33.8%). Very few outlets (3.6%) do not offer any discounts at all and operate on fixed rates only.

Table 4.10

	Types of Offers	N	%
1	Discount	75	**38.5**
2	Discount on Bulk Purchases	66	**33.8**
3	Combopack / Stretchpack	18	9.2
4	Buy 1 Get 1 Free	17	8.7
5	Happy Hours	11	5.6
6	End of Season Sale	1	.5
7	No Offers Discounts / Fixed Rate	7	3.6
8	Total	195	100.0

4.11. Period of Giving Offers

The largest number of outlets gives offers to attract customers (47.2%) throughout the year. Taken together 96.4% outlets give some kind of offers or the other at various periods during the year. Consumers have become deal driven shoppers.

Table 4.10

	Period of Giving Offers	N	%
1	Throughout the Year	92	47.2
2	June, July, August	65	33.3
3	During Festivals	19	9.7
4	Off Season / End of Season	10	5.1
5	Twice a Year	2	1.0
6	Fixed Rate	7	3.6
7	Total	195	100.0

Culture of Discounting

Consumers are searching for discounts and deals and have become conditioned to buy only when these are available. Outlets have to decide whether, when, and how much discount to offer customers.[x] Some of the advantages of offering discounts and promotions online are that these are easy to implement, and track but the downside it that margins and profitability decrease. Price driven shoppers are attracted to shop at the establishment only due to discounts offered and regular shoppers may wait for sale periods to shop.

Discounts and offers may not be right for every type of business but these have become the norm. Businesses need some experimentation to find out what type of schemes are the most effective in driving traffic to their outlets, increase brand awareness and sales.[xi]

Use of Promotional Codes

Promotional codes enable outlets to market products on online by providing customers with discounts on certain items. The discount associated with the code can take money off individual products or the total order. Promo codes also provide customers with free shipping or gift-wrapping. This marketing strategy essentially gives customers an incentive to buy your products. Promotional codes work well with both new and returning customers. "Getting a coupon, as hard as it is to believe, is physically shown to be more enjoyable than getting a gift," said Paul J. Zak, director of the Center for Neuroeconomics Studies at Claremont Graduate University. Promotional codes are an efficient way to track marketing efforts to see which platforms are generating the most traffic or leading to conversions. Specific marketing campaigns can be allocated a dedicated promotional code. This is way outlets can capture data and analyze the return on investment of (ROI) of specific campaigns.[xii]

Measurement Practices for the Mobile World

The focus should be on business metrics that really matter i.e. bottom line sales and profits of the company rather than campaign metrics such as clicks and conversions.[xiii] But studies have shown that smart phone owners who have purchased something in a shop have first turned to their devices for information that was relevant to the purchase.[xiv] Hence it is important to capture the real impact of online-to-offline or across devices. Outlets / shops need to there in the key moments when shoppers decide to advance their journey toward a buying decision. Recognizing the opportunities and challenges brought about due to apps and websites is important.

Efficacy of Tie ups with apps and websites

Bringing in new customers is one of the main aims of promotional activities. In case of new customer acquisition, of those who had tie ups (9.7%) did not benefit at all from the same. Outlets with tie ups reporting new customer acquisition (54.4%) is broken up into those who get new customers (35.9%), those who get new customers occasionally (13.3%) and those who rarely get new customers (5.1%) **(See Table 4.8)**

In response to the open ended question ‘How did you benefit from the tie up?’ an abysmally low (6.2%) reported increase in sale due to tie ups. So in all probability new customers may have walked in but did not purchase. Other factors, such as service, type and quality of goods, have to be investigated to determine how to increase sales conversion rates.

Other benefits of tie ups reported by outlets are that they helped in locating the shop (27.2%), attracting customers through advertising the offers and discounts (20.5%), and increase branding, promotion, and awareness (10.8%) **(See Table 4.7)** Promotions create differentiation, provide opportunities to upsell and cross sell, create word of mouth opportunities, and drive customer decision making.[xv] Considerable time, effort, and an outlay of expenses are incurred in tie ups. An analysis of the data shows benefits accruing to those who tie up albeit not to the degree and extent that this much hyped promotional channel promises. But companies are rushing to become digital be it in terms of technology, new ways of engaging with consumers, or new ways of doing business. It is necessary to unlock value from emerging growth sectors, to understand developments in the marketplace understand and evaluate how these will present opportunities or threats. It is necessary to be attuned to customer decision journeys, understanding how customer behaviors and expectations are developing both in one's own business as well as outside it. This is essential to getting ahead of trends that can deliver or destroy value.[xvi]

In the words of P.T. Barnum ~ "Without promotion something terrible happens… Nothing!"[xvii] Outlets need to create strategies for marketing promotions on apps and websites. Hence managing and keeping up technology is of essence. Tracking the impact of their presence on such apps and websites is essential to evaluate impact on sales. It is also important to choose carefully which app and or website to be present on which fits the profile of the target market important to the marketer. And it is worth paying to list on apps that reach your target customers.

Encouraging customers to write reviews on or about your business in local online directories and review sites can help spread word of mouth online.[xviii] Such sites enable customers to find out about your offerings, compare, and decide on the basis of online reviews. Some reviews may not be positive. Here the focus should be on fixing the problems customers have faced while using your products or services. Customers are forgiving of companies that resolve issues and problems they face while dealing with them.

Limitations, Managerial Implications, and Further Research

This research was conducted in Mumbai and the results cannot be extrapolated to the rest of India. A large number of outlets (35.9%) do not have any tie ups with apps / websites at all. This indicates possibilities for such online app developers to tap into and sell their app services to these shops / outlets. App and website companies need to constantly innovate their offerings and sell their platform to attract more outlets to register with them.

Outlets need to create strategies for marketing promotions on apps and websites and measuring the efficacy of the same. Studies need to be conducted on consumers who use these apps and websites for search and their perceptions of the usefulness of the same as it is important to capture the real impact of online-to-offline or across devices.

5. CONCLUSION

India is seeing mobile and internet penetration speeding up, increasing number of free wifi spots available, the governments thrust towards going digital and the battle in the telecom sector to capture the largest number of subscribers. Consumers are going digital hence companies cannot afford to be absent on platforms where the consumers are.

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CUSTOMER SATISFACTION ON THE TELECOM SECTOR IN INDIA, A STUDY ON CALL CENTER EXPERIENCE OF CUSTOMERS IN ASSAM AND NE

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ABSTRACT

The concept of customer satisfaction has attracted much attention in recent years. Customer Satisfaction has now become the key to compete and survive in today's competitive scenario. Telecom Sector in particular has been one of the most competitive one and with plans where there is free usage for months together. Now it is only Customer Satisfaction which can guarantee incremental revenues for an Operator. In this paper research is done on primary data to understand the customer satisfaction with respect to experience at Call Center. This is an important differentiator in determining the stickiness level of customers to an Operator. In this paper comparison is done between four Operators and various recommendations are laid out based on the research findings.

KEYWORDS: One-way ANOVA, P-value, Frequency Chi Square, Customer Satisfaction

1. INTRODUCTION

India is today one of the largest telecom markets in the world, with an addition of more than 18 million subscribers every month. Telecom sector has continued to emerge as the prime engine of economic growth, contributing to nearly 2% of the Indian GDP. In this paper, primary data has been used to conduct a scientific study of the mobile-users' needs and requirements, with a view to determine the level of satisfaction with respect to their experience at the Call Center. The scope of the study is the mobile-users in the regions of the state of Assam and the North-East. This paper is part of a Doctoral Thesis on the above subject and addresses these key concerns, gives mechanism to measure and work pro-actively to increase customer satisfaction and revenue

2. LITERATURE REVIEW

Extensive literature review has been done with respect to customer satisfaction studies in general, customer satisfaction in telecom in the international scenario, domestic scenario and also studies done in the case study circle of Assam and NE.

Oliver (1980) defines that "Customer satisfaction is a summary psychological state when the emotions surrounding disconfirmed expectations are coupled with the consumer's prior feelings about consumption experience".
Customer satisfaction has been a popular topic in marketing practice and academic research since Cardozo's (1965) initial study of customer effort, expectations and satisfaction. Customer satisfaction is typically defined as a post consumption evaluative judgment concerning a specific product or service (Gundersen, Heide and Olsson, 1996). It is the result of an evaluative process that contrasts pre-purchase expectations with perceptions of performance during and after the consumption experience (Oliver, 1980).

The most widely accepted conceptualization of the customer satisfaction concept is the expectancy disconfirmation theory (McQuitty, Finn and Wiley, 2000). The theory was developed by Oliver, who proposed that satisfaction level is a result of the difference between expected and perceived performance.

Satisfaction (positive disconfirmation) occurs when product or service is better than expected. On the other hand, a performance worse than expected results is dissatisfaction (negative disconfirmation). Studies show that customer satisfaction may have direct and indirect impact on business results. Luo and Homburg (2007) concluded that customer satisfaction positively affects business profitability. The majority of studies have investigated the relationship with customer behavior patterns (Dimitriades, 2006; Olorunniwo et al., 2006; Chi and Qu, 2008; Faullant et al., 2008). According to these findings, customer satisfaction increases customer loyalty, influences repurchase intentions and leads to positive word-of-mouth. Given the vital role of customer satisfaction, it is not surprising that a variety of research has been devoted to investigating the determinants of satisfaction.

Satisfaction can be determined by subjective (e.g. customer needs, emotions) and objective factors (e. g. product and service features). Applying to the hospitality industry, there have been numerous studies that examine attributes that travelers may find important regarding customer satisfaction. Atkinson (1988) found out that cleanliness, security, value for money and courtesy of staff determine customer satisfaction. Knutson (1988) revealed that room cleanliness and comfort, convenience of location, prompt service, safety and security, and friendliness of employees are important. Barsky and Labagh (1992) stated that employee attitude, location and rooms are likely to influence travelers'' satisfaction.

A study conducted by Akan (1995) showed that the main determinants of hotel guest satisfaction are the behavior of employees, cleanliness and timeliness. Choi and Chu (2001) concluded that staff quality, room qualities and value are the top three hotel factors that determine travelers'' satisfaction.

Customer service is a system of activities that comprises customer support systems, complaint processing, speed of complaint processing, ease of reporting complaint and friendliness when reporting complaint (Kim, Park and Jeong, 2004). Customer services are the opportunities for telecom service providers that are added to mobile network other than voice services in which contents are either self produced by service provider or provided through strategic compliance with service provider (Kuo, Wu and Deng, 2009).

The improved customer services are the focal point of the telecom service providers for social as well as for economic reasons. From a social point of view, services should be available to the customers on reasonable terms. As far as economic factor is concerned, services should satisfy the needs of the customers (Turel and Serenko, 2006; Melody, 1997). For developing satisfaction among customers, the telecom service providers need to be extra careful for the customer services they provide. Satisfaction of customer is determined by his evaluation of service provided by a brand (Gustafsson, Johnson and Roos, 2005). The study of Ahn, Han and Lee (2006) shows that when the customers, do not get their complaints considered properly, they start looking for other brands. It happens because either the customer service centers do not handle the complaints or the customers are not able to address them properly. Sometimes, telecom service providers take considerably longer time to resolve the problems like network coverage or call quality, the customers do not wait for long and hence they lose satisfaction with that particular brand (Ahn, Han and Lee, 2006).

Furthermore, the friendly attitude and courteous behavior of the service workers at service firms leaves a positive impression on the customer which lead towards customer satisfaction (Soderlund and Rosengren, 2008). On the other hand, if a telecom service provider lacks in providing services (call drops) to its customers it experiences customer churn. Kim, Park and Jeong (2004) argued that service provider should provide customer oriented services in order to heighten up customer satisfaction. It was also found that the customers get satisfied to a brand more if they get all the needed services accumulated in that very brand (Ahn, Han and Lee, 2006).

The gaps in literature have prompted the need for a first hand primary data based analysis to understand customer satisfaction and its effectiveness.
The conclusions of this study may be applied to other regions with caution.

3. METHODOLOGY, DATA COLLECTION AND TRANSFORMATION OF RESPONSE:

Categorization of Service Parameters

For the purpose of the study, the scope of consumer needs and requirements pertain to the following 9 broad service parameters.

1. Billing Experience
2. Brand Perception
3. Call Centre Experience
4. Cost
5. Customer Stickiness
6. Experience About Market Communication
7. Value Added Services
8. Network & Connectivity
9. Store Experience

Brief description of the mobile-services in Assam and the North-East

Consumer-base: About 23 million

- Service Providers:
- Major Service Providers: Reliance, Aircel, Vodafone, and Airtel. All together, they account for about 85% of the total subscriber base of about 23 million.

The scope of the study: Post-paid consumers

The survey-design:

- Survey Instrument: A questionnaire consisting of:
  - 97 questions were answered by the respondents using multi-point answer-scales. The questions were all related to the 9 service parameters mentioned above.
  - Provision for including the general and personal background of the respondents.
- Sample and Sample size: 558 respondents, selected randomly from the population of post-paid subscribers.
- Survey Execution: Printed questionnaire and mailers.

Responses

Respondents were to evaluate, based on their own experiences as subscribers, the above mentioned 97 questions using a 5-point/2-Point qualitative scale. For each of 97 questions, one of the following qualitative scales, depending on the focus and framing of questions, was used.

The qualitative scales used to facilitate answering questions:

Point of Scale	Agreement Scale	Opinion Scale	Likelihood Scale	Degree Scale	Yes-No Scale
1	Strongly Agree	Excellent	Extremely Likely	Very Low	Yes
2	Agree	Very Good	Very Likely	Low	Not Applicable
3	Neither Agree Nor Disagree	Good	Somewhat Likely	Moderate	
4	Disagree	Fair	Not Very Likely	High	
5	Strongly Disagree	Poor	Not At All Likely	Very High	No

Analysis of Survey-data:
The survey-data were analyzed as per the following steps

1. Transformation of 97 qualitative responses into numeric score for each of 558 respondent-subscribers.
2. Cumulating the 97 transformed numeric scores and converting the same into % satisfaction score for each of 558 respondent-subscribers.
3. Analysis of the 558 % satisfaction scores as given below:
    a. Statistical summary for % satisfaction scores (service parameter-wise and overall)
    b. Graphs & charts for the above
    c. Comparison of a) Regions, and b) The four service providers.

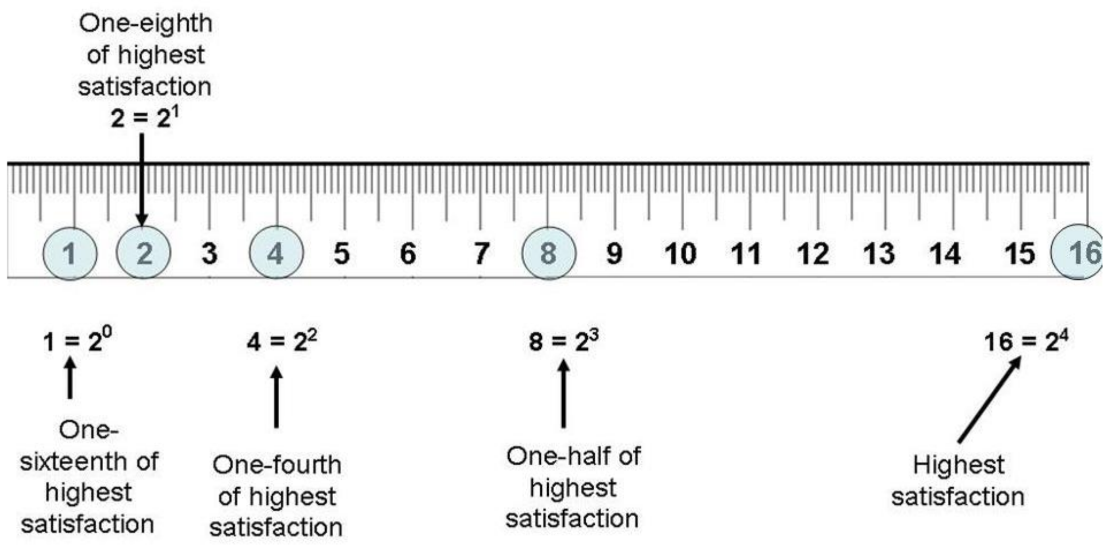
Transformation of Responses into numeric scores

The Rule for Assigning Numeric Scores to Qualitative Responses

Type of Scale	When the response corresponds to the Most positive Experience	When the response corresponds to an experience that lies between the two extremes, depending upon the degree.			When the response corresponds to the Most negative Experience
5-Point Scale	16	8	4	2	1
2-Point Scale	16	Not Applicable			1

The justification for assigning non-linear scores of 16, 8, 4, 2, and 1 is given below.

In order that the highest satisfaction level stands out from all the lower levels of satisfaction, the score to be assigned to it must be *highest* and *distant* from the scores to be assigned to all the lower levels of satisfaction. This, points to the use of a non-linear scale, rather than a conventional linear scale. This is pictorially explained in the following diagram. **Analysis of results is also done based on Linear Scale to double check on the final results.**



4. HYPOTHESES

1. Service provider to service provider difference in overall customer satisfaction at Call Center

Null Hypothesis (H_0): *There is no difference* in overall customer satisfaction level from service provider to service provider at Call Center
Alternative Hypothesis (H_1): *There is difference* in overall customer satisfaction level from service provider to service provider at Call Center

2. Service provider to service provider difference in overall customer satisfaction at Call Center from field-office to field-office

Null Hypothesis (H_0): *There is no difference* in overall customer satisfaction at Call Center level from service provider to service provider from field office to field office.
Alternative Hypothesis (H_1): *There is difference* in overall customer satisfaction at Call Center level from service provider to service provider from field office to field office.

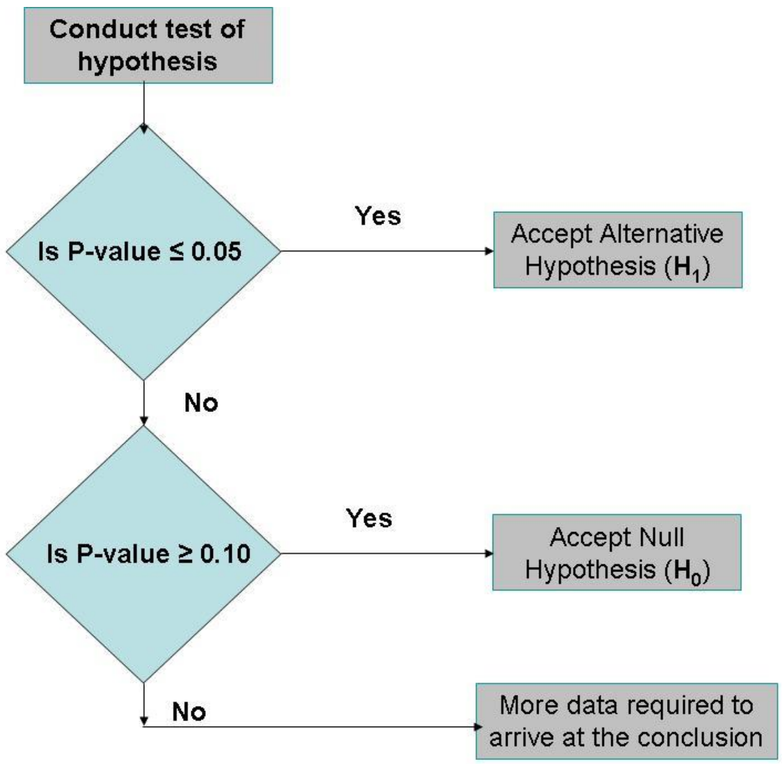
3. Service provider to service provider difference in overall customer satisfaction at Call Center from centre to centre

Null Hypothesis (H_0): *There is no difference* in overall customer satisfaction at Call Center level for the service providers from centre to centre.
Alternative Hypothesis (H_1): *There is difference* in overall customer satisfaction at Call Center level for the service providers from centre to centre.

4. Service provider to service provider difference in overall customer satisfaction at Call Center from various sub segments like Age on Network, Average Bill Amount etc.

Null Hypothesis (H_0): *There is* *no* *difference* in overall customer satisfaction level for the service providers from the above sub segments.
Alternative Hypothesis (H_1): *There* *is* *difference* in overall customer satisfaction level for the service providers from various sub segments.

Rule for accepting/rejecting hypotheses
Every test of hypotheses conducted produces a 'P-value'. The P-value is nothing but the chance of null hypothesis (H_0) being true, *given the observed sample data*. The following sequence will help understand the acceptance/rejection rule.



Analysis of Satisfaction Scores from the Primary data

One-way ANOVA: CS on Call Center Experience versus Circles

Source	DF	SS	MS	F	P
Circles	1	3794	3794	16.62	0.000
Error	194	44301	228		
Total	195	48095			

S = 15.11   R-Sq = 7.89%   R-Sq(adj) = 7.41%

```
                         Individual 95% CIs For Mean Based on
                         Pooled StDev
Level    N   Mean  StDev  ---+---------+---------+---------+------
Assam  109  34.96  16.07                    (------*-------)
NE      87  26.10  13.81  (-------*-------)
                         ---+---------+---------+---------+------
                         24.0      28.0      32.0      36.0
```

- **Interpretation**
  - Since P value (0.000) is less than 0.05, the average CS on Call Center Experience differs significantly from one Circle to another.
  - CS on Call Center Experience is more in Assam when compared with NE

One-way ANOVA: CS on Call Center Experience versus Locations

Source	DF	SS	MS	F	P
Locations	8	6581	823	3.71	0.000
Error	187	41514	222		
Total	195	48095			

S = 14.90   R-Sq = 13.68%   R-Sq(adj) = 9.99%

```
                           Individual 95% CIs For Mean Based on
                           Pooled StDev
Level       N   Mean  StDev  -------+---------+---------+---------+--
Agartala    8  26.63  13.64  (--------------*--------------)
Aizwal     10  32.63   4.96         (-------------*------------)
Dibrugarh  17  29.95   8.26          (---------*---------)
Guwahati   58  37.47  15.02                      (-----*----)
Imphal     36  20.90  15.18  (------*------)
Nalbari     8  30.79  24.97      (--------------*--------------)
Shillong   17  29.96   9.44         (---------*---------)
Silchar    16  29.36  15.42       (----------*---------)
Tezpur     26  33.90  18.57               (-------*--------)
                           -------+---------+---------+---------+--
                              21.0      28.0      35.0      42.0
```

- **Interpretation**
  - Since P value (0.000) is less than 0.05, the average CS on Call Center Experience differs significantly from one location to another.
  - CS on Call Center Experience is very low for Agartala and Imphal

One-way ANOVA: CS on Call Center Experience versus Service Provider

Source	DF	SS	MS	F	P
Service Provider	3	11856	3952	20.94	0.000
Error	192	36240	189		
Total	195	48095			

S = 13.74   R-Sq = 24.65%   R-Sq(adj) = 23.47%

Level	N	Mean	StDev
A	16	30.89	17.06
B	47	40.11	16.64
C	89	22.87	11.71
D	44	37.87	12.82

```
            Individual 95% CIs For Mean Based on Pooled StDev
Level       -+---------+---------+---------+--------
A             (---------*---------)
B                          (----*-----)
C           (---*---)
D                         (-----*-----)
            -+---------+---------+---------+--------
           21.0      28.0      35.0      42.0
```

- **Interpretation**
  - Since P value (0.000) is less than 0.05, the average CS on Call Center Experience differs significantly from one Service Provider to another.
  - CS on Call Center Experience is low for A and C and high for B and D

One-way ANOVA: CS on Call Center Experience versus Age on Network

Source	DF	SS	MS	F	P
Age on Network	3	2564	855	3.60	0.014
Error	192	45531	237		
Total	195	48095			

S = 15.40   R-Sq = 5.33%   R-Sq(adj) = 3.85%

Level	N	Mean	StDev
13 months - Two years	40	26.37	11.84
3 months - 6 months	20	39.20	14.52
7 months - One year	43	28.81	17.90
More than 2 years	93	32.30	15.67

```
                      Individual 95% CIs For Mean Based on
                      Pooled StDev
Level                 ---------+---------+---------+---------+
```

```
13 months - Two years  (------*------)
3 months - 6 months              (---------*---------)
7 months - One year       (-----*------)
More than 2 years              (---*----)
                         ---------+---------+---------+---------+
                             28.0      35.0      42.0      49.0
```

- **Interpretation**
  - Since P value (0.014) is less than 0.05, the average CS on Call Center Experience differs significantly from one Age on network to another.
  - CS on Call Center Experience is low customers with Age on network between 7 months to 2 years

One-way ANOVA: CS on Call Center Experience versus Average bill amount

Source	DF	SS	MS	F	P
Average bill amount	2	13	7	0.03	0.974
Error	193	48082	249		
Total	195	48095			

S = 15.78   R-Sq = 0.03%   R-Sq(adj) = 0.00%

Level	N	Mean	StDev
More than Rs 2000	6	32.04	6.49
Rs. 0 - Rs. 1000	166	30.92	15.74
Rs. 1001 - Rs 2000	24	31.49	17.44

```
                    Individual 95% CIs For Mean Based on
                    Pooled StDev
Level               --+---------+---------+---------+-------
More than Rs 2000   (-----------------*-----------------)
Rs. 0 - Rs. 1000             (--*---)
Rs. 1001 - Rs 2000         (--------*--------)
                    --+---------+---------+---------+-------
                    21.0      28.0      35.0      42.0
```

- **Interpretation**
  - Since P value (0.974) is greater than 0.05, hence, the average CS on Call Center Experience does not differs significantly from one set of Average bill amount to another

5. KEY FINDINGS

- It is seen from the study that the experience of customers at Call Center is different from one circle to another, from one operator to another and also from one location to another
- It is seen that customers have same experience at call center even if they are old in the system or pay a higher bill. There is no differential customer service given to priority customer.
- The Call Center experience is low for Customer with age on network 7 to 24 months
- Although Operators use same type of ERPs, still the experience is different
- It also seems that Operators are more focused on servicing areas where customer base is higher.
- It is seen that focus is only placed on new customers at the point of joining the network
- There is a need to have a differential experience for customers who are old on network
- Benchmarking of best practices across needs to be studied to ensure high level of call center experience.

6. SIGNIFICANCE OF THE RESEARCH

- This paper can guide the Operators on how they stand currently with respect to service delivery at Call Center
- There is a possibility of applying the research/doing similar research in other Service Sectors

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INTELLECT AND INNOVATION – AT THE CORE OF PRODUCT INNOVATION STRATEGIES IN EMERGING MARKETS

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ABSTRACT

Companies in today's globalised world must innovate to compete. Many successful companies have found that knowledge management strategies and practices are central to ongoing innovation (Boutellier et al., 1999; David & Foray, 2001; A D Little, 2001; Tidd et al., 1997).

The changing nature of the market, the challenge of ongoing change and the emergence of the knowledge society has lead to an increased focus on innovation. Innovation is required because we cannot expect that the accumulated competence, skills, knowledge, product services and structure of the present will continue to be adequate (Drucker, 1992). Innovation implies improving on existing products and processes, finding new ways and also abandoning the old, or reviewing every product, service, technology, market, and distribution channel on a regular basis (Drucker, 1992).

The contributions of organisational innovation to organisational performance are of long standing interest (Burns and Stalker 1961, 1994; Drucker 1992) and in corporate arenas (Arthur D Little 2001; Hamel 2000; Tidd, et al., 1997).
This paper is an attempt to understand the relationship between Intellect and Innovation which is at the core of Product innovation strategies in emerging markets. The paper asserts that such practices could be employed across a range of firms to enable and enhance the potential for innovation within firms in multiple sectors.

KEYWORDS: Knowledge management, Organizational innovation, Intellect, Innovation, emerging markets

1. KNOWLEDGE MANAGEMENT AND INNOVATION

In this competitive world, companies can no longer build a competitive advantage through cost focus, as it is no longer a differentiator and most leading organizations have equalized on this account. In this knowledge based economy, if an organization wants to win, the knowledge of every employee must be converted into a pool that the entire organization can benefit from.

Knowledge is power and it is the only factor today that can separate two companies' resource bases, providing one with a competitive edge. Knowledge Management is a discipline that treats intellectual capital as managed asset.

Knowledge Management is a system for managing, gathering, refining, analyzing and disseminating knowledge in all of its forms within an organization. Knowledge is a fluid mix of fragmented experiences, values, contextual information, expert insight and grounded intuition that provides an environment and framework for evaluation and incorporating new experiences and information.
Knowledge Management systems get the right information to the right people at the right time, provide them with the tools for analyzing that information, and give them the power to respond to the insight they glean from that information – all at lightning speed. Thus, Knowledge management is the process of transforming information and intellectual assets into enduring value.

Dr. Reddy's Labs, the emphasis has shifted from training to encouraging and sharing learning, and has set up a learning centre, ANKUR, where cross functional teams pass on their experiences on specific projects to others.

Amtrex's PRODOSH (Proactive, Professional, Productive Data Base Management Synchronization and Harmony) collates all knowledge on customers and influencers, refines and stores knowledge for proactive decision making. Similarly, Forbes Marshall employs a concept named TECHNOLOGY KEEPING, where 25 people track the knowledge generation throughout the world in 25 specific fields, store it, structure it, and make it available to the right individuals in the organization.

Some writers describe the importance of the generation of knowledge in more detail. Skyrme (1999) describes two processes. First, knowing what you know i.e. having better awareness, sharing and application of existing knowledge including that which originates outside the organisation. Second, faster and better innovation i.e. more effective conversion of ideas into products and processes (Skyrme, 1999).

Table 1. Forms of Knowledge and Processes.

Forms of knowledge	**Knowledge Processes**
Customer knowledge	Developing deep knowledge through customer relationships, and using it to enhance customer success through improved products and services
Knowledge in products and services	Embedding knowledge in products and surrounding them with Knowledge intensive services
Knowledge in people	Developing human competencies and nurturing an innovative culture where learning is valued and knowledge is shared.
Knowledge in processes	Embedding knowledge into business processes, and giving access to expertise at critical points

Organizational memory	Recording existing experience for future use, both in the form of explicit knowledge repositories and developing pointers to expertise
Knowledge in relationships	Improving knowledge flows across boundaries: with suppliers, customers and employees etc.
Knowledge assets	Measuring intellectual capital and managing its development and exploitation.

Source: Developed from Skyrme (1999).

The contribution of knowledge to continued success by companies such as 3M, Hewlett Packard and Glaxo Wellcome is well known (Skyrme, 1999). Benefits of knowledge include the avoidance of costly mistakes, such as the sharing of best practices in Chevron, and faster problem solving through videoconferencing by BP Amoco. Other examples include faster development times through learning networks and linking customer problems to an ideas database, and better customer solutions. A well known example is the sales and support staff at Buckman Labs who use their knowledge repository K'Netix to gain access to best expertise and develop innovative solutions to complex customer problems.

Other benefits obtained from knowledge management practices include gaining new business, improved customer service and reduction of risk (Skyrme, 1999).

A good example in the Indian context is Infosys Knowledge Management Strategy. Infosys Knowledge Management Strategy revolves around the key constituents of people, Content and Technology. It aims to address the challenges by following Infosys's proprietary KMM (Knowledge Management Maturity) Model. The KMM model is based on the realization that the path to achieving KM success involves significant change-in terms of culture, process and systems- within an organization.

Infosys Mana^{TM} is a knowledge-based AI platform. It brings machine learning together with the deep knowledge of an organization to drive automation and innovation.

Innovation has been variously defined and can be examined from a variety of perspectives, from a broad definition such as "innovation refers to the process of bringing any new, problem solving idea into use" (Kanter1983: 20), to a more outcome based approach, where "innovation is the process whereby new ideas are transformed, through economic activity, into sustainable value creating outcomes" (Livingstone 2000).

Table 1: Components of innovative organisation

Component	**Key features**
Vision, Leadership and the will to innovate	Clearly articulated and clear sense of purpose Stretching strategic intent 'Top management commitment'

Appropriate structure	Organisation design which enables high levels of creativity
Key individuals	Promoter, champions, gatekeepers and other roles which energize or facilitate innovation
Effective team working	Appropriate use of teams to solve problems. Requires investment in team selection and building
Continuing and stretching individual development	Long term commitment to education and training to ensure high levels of competence and the skills to learn effectively
Extensive communication	Within and between the organisation and outside. Internally in three directions – upwards, downwards and laterally.
High involvement in innovation	Participation in organization wide continuous improvement activity
Customer focus	Internal and external customer orientation. Total quality culture
Creative climate	Positive approach to creative ideas, supported by relevant rewards system – a 'winner's culture'
Learning organisation	Processes, structures and cultures which help institutionalize individual learning. Knowledge management

Source: Tidd et al., 1997: 314

He also describes innovation as a set of interacting knowledge processes. These processes include the absorption of existing knowledge from the external environment, the creation of new knowledge through creative thinking and interchange of ideas, the rapid diffusion of ideas and insights through knowledge networking; the validation, refining and managing of innovation knowledge, matching of creative ideas to unmet customer needs and unsolved problems, and encapsulating and codifying knowledge into an appropriate form such as a tangible product, a production of a new internal process, training material for a new service a marketable design, patent etc (Skyrme, 1999: 51).

The interconnecting relationship between innovation and knowledge is seen in the approach to ways to increase knowledge and its transfer in organisations. For example Davenport and Prusak suggest that the best way an organisation can transfer knowledge effectively is to *"hire smart people and let them talk to each other"* (Davenport and Prusak, 1998: 88). A similar prescription is provided for innovation – the ingredients are the clever people and the processes are the interaction, context and a culture of knowledge sharing, or finding effective ways to let people talk and listen to one another.

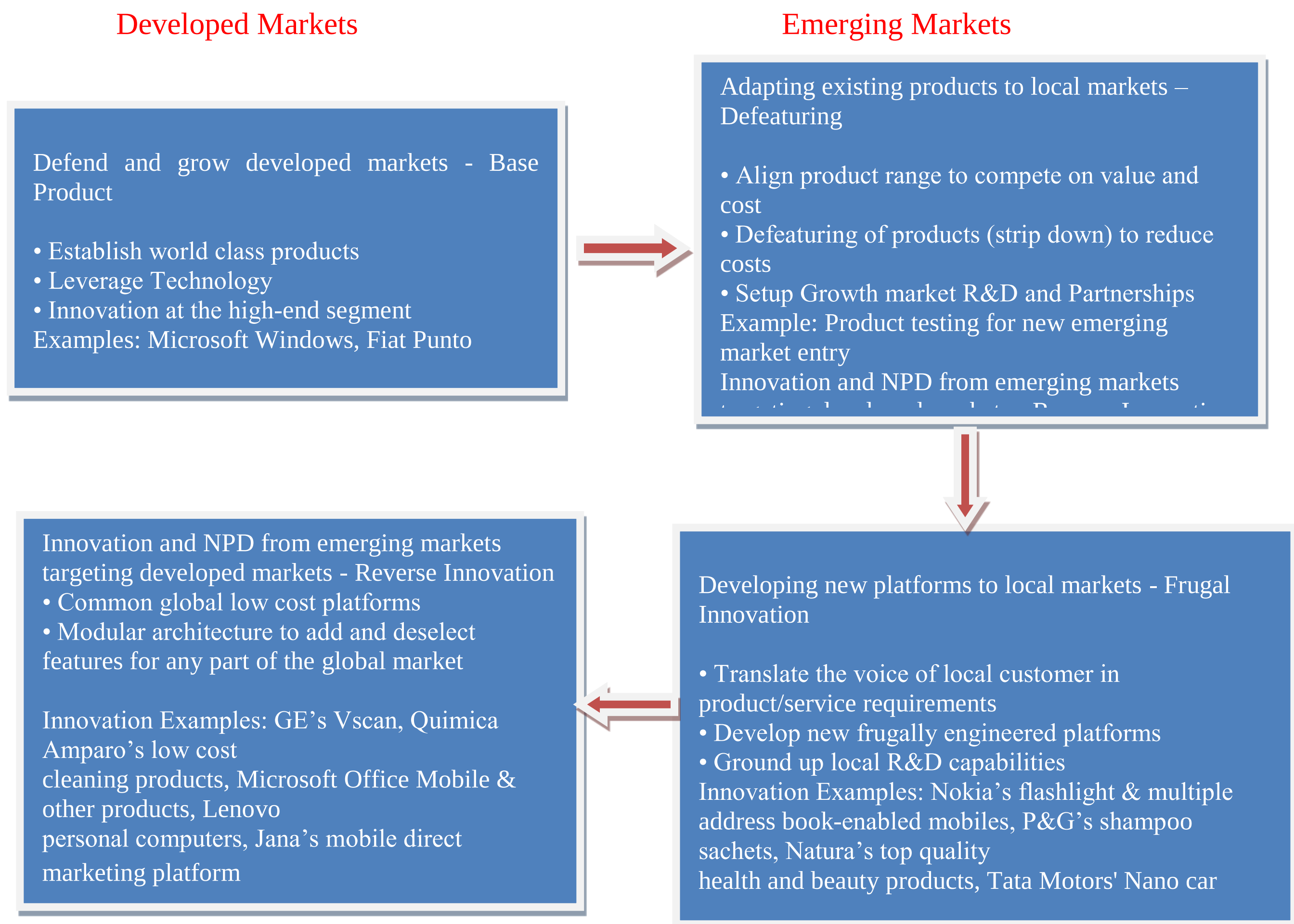
2. THE EVOLUTION OF PRODUCT DEVELOPMENT AND INNOVATION IN EMERGING MARKETS

The last decade has seen emerging markets evolve into innovation hubs for new products. Chinese inventor Li Weiguo's bicycle that carries its rider on land and water; a common scooter powered flour mill devised by India's Sheikh Jahangir to cater to erratic power supply in rural villages and

need for portability in remote villages; a bicycle powered washing machine to reduce washing efforts in deep rural areas; a mobile sugarcane juice making unit; a portable top-opening fridge developed for Indian rural population, which replaces the compressor with a cooling chip and fan, working on battery to cope with power cuts in rural regions; a cosmetic
line of seeds from the Amazon; and Embraer’s efficient mid-sized jets. These are among the many innovations that have originated in developing nations. Many have already captured important market segments-not only in the huge demand base of emerging nations’ poor populations, but also in their expanding middle class and beyond, in the global market. For example, Haier, the Chinese manufacturer of appliances, is now the top refrigerator maker in the world, with a 12.5 percent global market share.

Traditional product development should be adapted to achieve profitable results in and from emerging markets. However, it’s important to highlight that the innovation flow can also be triggered from emerging markets directly to developed markets.

Figure 3: Product Development and Innovation Strategies across Developed and Emerging markets



Source: Armen Ovanessoff and Anish Gupta, Accenture Research, "A Passage to India", 2009,

For developed-market companies, this phase marks the normal initial entry into an emerging market (Figure 3). As companies enter emerging markets, their local trust level, expertise, and cultural understanding are very low. Often, the emerging market is treated as simply a new space to sell existing products. After some experience, though, it becomes clear to the companies that these markets are fundamentally different. In order to position their offerings, the companies begin de-featuring existing products, often lowering costs to meet market demands. At this stage, the basic product remains the same as it was in established markets. It simply has fewer features.

Although this de-featuring appears to be a smart way to reduce costs, it doesn't support a dominant-market-share strategy. It is more useful as a strategy for testing a product or new market.

3. DEVELOPING NEW PLATFORMS FOR LOCAL MARKETS

At a later stage of engagement, companies start to focus on products that are fundamentally redesigned (Figure 3). The development process no longer consists of taking a known product and removing features to make it cheaper. Instead, companies now begin with their experience and knowledge of their customers, including a target price point. Companies use the information to conceive, design and make a new, locally appropriate product from the ground up.

This alternative product development cycle is a natural evolutionary step for most companies trying to thrive in emerging markets. After some experience, they design and develop their products based on local needs. Among Nokia's cell-phone models in India, for example, are models that have flashlights (because of electrical blackouts) and multiple "phonebooks" (because bottom-of-the-pyramid consumers often share a phone among several owners),McDonald's menus in India feature items with familiar Indian spices and Starbucks offering coffee with Indian *masalas* .

In addition to addressing local tastes and usage patterns, there are three primary considerations when developing for emerging markets, as described by Khanna and Palepu:

- Institutional voids: Systems in emerging markets might present unique challenges and opportunities in adjacent/non-core areas. Examples include infrastructure, supply chains, information brokers, education, and governmental/regulatory structures.

- Collaboration: Given the institutional voids, companies regularly find it necessary and beneficial to collaborate more closely with local partners and suppliers, non-governmental organizations and government agencies. These partnering relationships regularly include a sustainability agenda, representing another systemic departure from developed market product development.

- Frugal innovation: Products used to be designed with price rather than features as the starting point. However, the turning success factor for emerging markets is innovation focused on the end utility" of the product. The idea is to keep the rather local "voice of the customer" as the key guideline, and then design, produce and launch at a competitive price point.

Jana's experience in Africa illustrates these dynamics. Starting from the observed institutional void of a lack of an efficient job-board mechanism in Kenya, Jana collaborates with many mobile operators globally to deliver a mobile platform reaching over two billion emerging market consumers. Users receive free mobile airtime (which also addresses the limited banking infrastructure in many areas) in exchange for completing surveys and purchasing products—which further addresses lack of direct marketing in their markets. Users are not required to purchase any additional product beyond their existing mobile phones to participate. Hence, mobile airtime serves as a proxy for incremental income and contributes back to the community.

This approach often drives innovation, which can improve competitiveness not only in the bottom-of-the-pyramid segment but also in products marketed to the middle and upper classes of an emerging market's consumers, where products have room to branch out from basics into the "wish list" and "good to have" set of features. A number of profitable niches have been exploited by starting design with the local voice of the customer. In India, for example, Procter and Gamble and HLL developed shampoo sachets for rural Indians who can't or won't pay for a whole bottle of shampoo due to limited weekly disposable income. These companies tapped into the perceived luxury value that the local population ascribed to the product. This guided their product positioning, but the price point was made affordable by selling single-use sachets. Then, too, Tata Motors' Nano car represents an integration solution uniquely suited to the Indian market. However, its actual business results demonstrate its design team hasn't properly understood the voice of the customer. Despite an innovative design and affordable price point, the positioning differed from the customer requirements. It was perceived as a replacement to a two wheeler segment, therefore failing to leverage the car's value as a symbol of status.

4. INNOVATION AND NEW PRODUCT DEVELOPMENT FROM EMERGING MARKETS

Increasingly, innovations that were created by emerging-market methods for emerging-markets consumers are finding their way into developed markets, a process Jeffrey R. Immelt, Vijay Govindarajan, and Chris Trimble have called "reverse innovation." Their study highlights the GE case, where they have developed a portable ultrasound machine in China, costing less than half of the expected cost in a developed country and which is a success today not only in emerging but also in developed markets.

Of course, this kind of disruption is not confined to developed-world multinationals like GE. Consider, for example, Quimica Amparo, a 61-year-old Brazilian company that has competed aggressively for years in Brazil's cleaning products market. Having mastered a strategy of low price coupled with respect for the environment, the company has recently begun exporting its product portfolio around the world. In their move to the global level, such companies' emerging-markets experience gives them several important advantages. For example, Fiat is now designing its new Fiat Mio, an urban-targeted compact car, in Brazil for global markets, based on their local competitive marketing, design and development capabilities. The United Nations World Investment Report calculates that there are now around 21,500 multinationals based in the emerging world, and many of these companies expect to compete globally with multinationals from developed markets.

According to a recent Gartner report, emerging market companies have less organizational history, and therefore fewer problems with legacy systems and methods. Therefore, they can “leapfrog” the usual evolution of their supply chains, skipping expected developmental steps to quickly develop best-in-class practices. For example, extensive collaboration, not only with suppliers but also with customers, is a hot topic (and a challenge) for many developed-world companies. Yet Brazilian and Chinese companies already collaborate extensively and multi directionally, with customers and channels as well as suppliers.

This inclination for collaboration is often driven by culture: emerging market companies are developed in societies which highly value personal relationships in business. So having a rich network of relationships with hundreds, or thousands, of suppliers and consumers is simply business-as-usual. But it just so happens that this inclination gives a competitive edge in a time of volatility in both supply and demand. Companies with these tight partnerships are quick to understand customers’ requirements and bring those insights into the product development process.

Another advantageous trait of emerging markets product lifecycle management is the just-in-time approach. Processes and facilities in the developing world are generally more cost-effective to run, and they have strong channel access. Thus they can adjust nimbly to market changes or shifts in customer needs. Within the just-in-time approach, some innovative companies are also mastering a strategy of price differentiation coupled with respect for the environment, which we call “frugal process of innovation”. These companies break down processes and reassemble them in the most cost-effective manner that focuses on customer value-add that’s geared to that emerging market.

5. CONCLUSION

For many industries emerging markets are key to near- and medium-term growth. For most companies, the strategy for these markets has long been to either extend existing brands, or strip features from those brands in order to attract highly cost-conscious consumers. However, with increasing consumer awareness and global connectedness, the competitive picture has changed, and today new emerging-market strategies are required. Companies have begun to target the specific needs of the emerging consumer. Not only does this new approach give companies an edge in emerging markets, but the resulting innovations can turn out to have applications in the developed world.

This paper brings together literature from research on innovation, the importance of innovation for success at the firm and national level has been demonstrated. The essential contributions from knowledge practices and their critical role in innovative firms have been identified. The paper concludes with some ways in which the activities seen as central to innovation in firms encapsulate knowledge management practices.

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RURAL CUSTOMERS AND THE ROLE OF VARIOUS MEDIUMS IN PURCHASE DECISIONS: A STUDY OF SELECTED FMCG PRODUCTS IN THE VILLAGES OF GUJARAT

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ABSTRACT

This research paper based on primary data examines the domain of Rural Marketing for the select FMCGs for the state of Gujarat with an objective to develop an insight into the buying behavior of rural consumers. The study includes the understanding the demographics of the rural consumers, what makes them purchase a particular brand, the impact of various media vehicles and the impact of the retailers on the buying behavior of the rural people. From testing of hypothesis relationship was observed to be existing: between consumer's purchase decisions on the basis of price and the select FMCG product categories; consumer opinion about different media vehicles and how media makes them aware of various products; consumer's opinion about the trust on rural retailer and the opinion of rural retailers in the purchase of the various brands; rural consumer's trust on the matter of the advertisements and the different districts.

The study uses both the qualitative and quantitative research approach. The use of both the descriptive and exploratory research designs is made. The sampling unit considered for this study is the people belonging to the villages of Gujarat state having the population of 2000-5000 people. The sample size for the study is 1600 people of the selected frame.

For this study the statistical software used is SPSS and the tools used are Correlation and Chi-Square Test. For studying the Demographic Profile of the consumers the frequency distribution is done. To study the general attributes of the consumer buying behavior the mean and the standard deviation study was done.

KEYWORDS: Rural consumers, Rural retailers, media. Visuals, local language, preferences, demographic

1. INTRODUCTION

The Insurance Act of 1938 defines a rural sector as any place having a population of 5000 or less according to the latest census; population density of 400 per sq km or less; and where no less than 75 percent of the male working population earns its income from agriculture (Syed, 2008).
According to Census of India 2011, out of total population of 1.21 Billion (121 Crores), 0.833 Billion (83.3 Crores) are in rural areas. The spread of population in 4,200 cities and towns is to the

extent of 25 %, and of the remaining 75% is in 5, 76,000 villages. Of these, 1,50,000 villages have a population ranging between 200 or less, 3,16,800 villages are in the range of 500 or less & more than 200. 6,300 villages in the range of 5,000 or more and the remaining 1,02,900 villages in the range of 5,000 or less but more than 500 people.

This study is in reference to the Use and purchase behavior of FMCG products in the state of Gujarat. As Gujarat is a rich state the rural areas can be source of good income generation for the organizations. The rural population habitation is more than the urban population. The total population of Gujarat as per census 2011 is 6.03 crores of which 58% lives in the rural areas. As more than 50% of the population lives in the rural areas, this shows the importance of the rural markets and rural customers.

This study is with reference to selected Fast Moving Consumer Goods (FMCG) and their purchase in the rural market of Gujarat (India). The Fast Moving Consumer Goods (FMCG) sector in rural and semi-urban India is estimated to cross US$ 20 billion by 2018 and US$ 100 billion by 2025. The rural FMCG market expanded at a CAGR of 13.2 per cent to US$ 100 billion during 2009–15.

2. LITERATURE REVIEW

The potency of the rural marketing placed in the 4A approach that is, acceptability, awareness, awareness and affordability of the customers. Though there are certain weakness in the rural markets like the low illiteracy, low per capita income and lack of awareness about various products. These weaknesses could be overcome as much more firms are taking attention into the rural marketing in India in order to reach the untapped market. The chances and opportunities for the rural marketing in India are that of more than 128 million households, the huge dimension of the rural market, vast potential market for the durables and FMCG, easy reach of the television and mass media, increase in the rate of literacy among the rural population has manipulated the consumer behavior. The threats of the rural marketing are its astonishing nature as contrasted to that of the urban market (Dhumal, Tayade & Khandkar, 2008).

Loudon (1988) mentioned that consumer behavior is the process that focuses how the groups or individuals make decisions in order to spend their own resources (effort, money and time) on the related consumption items.

Fast Moving Consumer Goods companies are the fourth largest industries in India, and it creates career opportunities for more than three million people and it have market size of about Rs 110000 crores (Kavitha, 2012). . It is found out by Subramanian and Gomez-Arias, (2008) that despite the constraints of the resource and income, the consumers are much creative and sophisticated. They are provoked not just by physiological and survival requirements. But they need to accomplish higher order requirements either to construct the social capital, for the cultural reasons or as a mechanism of compensatory. There is growth of 3 to 4 % in the Indian rural market per annum. Every year, there is an adding up of more than one million new customers. In India, this accounts for nearly 50 percent of the volume purchase of the FMCG (fast - moving consumer goods).

According to Dunne, Lusch and Carver (2010) retailing consists of the last tasks and steps required either to fix a product in customer's hands or to offer a service to the customer. In fact retailing is actually the final step in a supply chain and therefore any organization that delivers a service or product or offers a service to their last customer is performing the retailing function. Retailer often plays a major role in adding and creating value to last services and goods (Mehta and Lalwani, 2000).

It had been brought out by Kumar and Madhavi (2006), that the rural customers are conscious of the quality but together with sensible price offers. The rural people comprehend the local dialect and desire to be informed in their local dialect and language. Hence it could be useful for the endorsement of the brands in rural markets by chief players (Patel & Prasad, 2005).

The advertisements in the communication media place a decision part in transferring the attitude of the people in favor of a specific brand (Amarnath & Vijayudu, 2009). Companies spend billions of dollars in marketing communications every year (Mela, *et al.*, 1997).

To generate a strong impact on the short-term consumption behavior Promotion, one of the component of marketing mix, has been used as a means of communication (Laroche *et al.*,2003).

3. RESEARCH METHODOLOGY

The study uses both the qualitative and quantitative research approach. The use of both the descriptive and exploratory research designs is made. The sampling unit considered for this study is the people belonging to the villages of Gujarat state having the population of 2000-10000 people. For the quantitative study the village people and village heads have been taken into consider and for the qualitative study the rural retailers and the experts from the industry have been considered. The sample size for the study is 1600 people which have been derived from the following formula

$$S= \frac{Z^2 P (1-P)}{d^2} = \frac{(1.96)^2 0.5(0.5)}{(0.05)^2} = 385 \text{ customers.}$$

Following are the values for the equation
Z= Z VALUE = 1.96
P = Proportion value (0.5)
d= Precision Level = 0.05
The number of 385 respondents belongs to one zone. The data has been collected from the four zones of Gujarat: South, North, Central Gujarat and Saurashtra. This makes the sample size to be 1585. But for the safety reasons the data collected was from 1600 respondents (400 respondents from each zone).
For the design of questionnaire the experts from various FMCG companies were contacted and their opinion was taken to understand the mindset of the consumers in buying any product.

3.1. Objectives of the study

1. To study the demographic profile of the customers
2. To determine the effect of demographic profile of rural consumers on the purchase decision of selected FMCG product categories

3. To assess the impact of various media instruments utilized by marketers of selected product categories, in order to reach out to rural consumers.
4. To study the role of the retailers in the purchase decisions of the rural customers.

3.2. Selected Product Categories

Skin Care Products: a) Bathing Soap
b) Face cream
c)Talcum Powder
Hair Care Products: a) Hair Oil
b) Shampoo
Laundry Products: a) Washing soap
b) Detergent powder

4. DATA ANALYSIS AND INTERPRETATION

4.1. Demographic Characteristics of the Consumers Surveyed in Gujarat

Table 1

Demographics		**Frequency**	**Percent**
Gender	Male	800	50
	Female	800	50
Age	18-25	320	20.0
	26-35	450	28.1
	36-45	556	34.8
	above 45	274	17.1
Education	Nil	104	6.5
	Less than 8th std	230	14.4
	till 8th	408	25.5
	SSLC	414	25.9
	HSC	295	18.4
	Undergraduate	143	8.9
	Postgraduate	6	.4
Occupation	Working	1013	63.3
	Unemployed	587	36.7
Monthly family income	less than 5000	180	11.3
	5000-8000	438	27.4

	8001-15000	513	32.1
	more than 15000	469	29.3

Source: *primary data*

Table 4.1 shows the demographic profile of the sample surveyed in the state of Gujarat.

4.2. Brand Recall or Preferences

Table 2

Sr No	Product Type		Brand Recall or Preference
1.	**Skin Care Product**	**Face Cream**	**Fair and Lovely**
		Talcum Powder	**Ponds**
		Bathing soap	**Godrej No 1**
2	**Hair Care Products**	**Hair Oil**	**Navratna**
		Shampoo	**Chick**
3	**Laundry Products**	**Washing Soap**	**Nirma**
		Washing powder	**Nirma**

Source: *primary data*

4.3. Attitude towards the Retailers

Table 3

Statements	**Mean**	**Std. Deviation**
Buying FMCG products from the same shop keeper	**3.95**	1.188
Consumers blindly trust the words of the shopkeeper in buying a FMCG brand	3.09	1.136
Belief that the retailer suggests brands to me only if they are really worth suggesting	**3.43**	1.012
Buying brands based on the shopkeepers words has created problems to the health, in the past	2.55	1.003
Experience with the products suggested by the retailer has been good so far for consumers	3.00	1.049
Feeling that the retailer suggests brands only out of the personal interest towards customers	3.05	1.016

Source: *primary data*

From the above table we can observe that the mean was high for the statement stating the willingness of the customers to buy products from the same shop keeper with a mean value of 3.95 and a standard deviation of 1.188 and Buying brands based on the shopkeepers words has created problems in the past had low mean value with a mean of 2.55 and standard deviation of 1.003.

Buying from the same shopkeeper may be due to the availability of the credit facility or may be because the shopkeeper's opinion.

4.4. Testing of hypothesis

4.4.1. Testing of Hypothesis - 1

In order to determine whether there is a significant difference between the Age and skin care products (soap, face cream, talc), an ANOVA test was applied by using SPSS. The null and alternate hypotheses are as follows,

H_O A: Age and preference for skin care products (soap, face cream, talc) brands are not independent

H_1A: Age and preference for skin care products (soap, face cream, talc) brands are independent

Table 4

ANOVA (age and Skin care products)

	Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
Between Groups	18.312	3	6.104	16.661	0
Within Groups	584.709	1596	0.366		
Total	603.021	1599			

***Source**: Primary Data*

From the table it is observed that the F value for the difference between means of Skin care products was 16.661 and its corresponding p value is 0.000<0.05. Since the p value is less than 0.05, we can conclude that age and preference for skin care products (soap, face cream, talc) brands are not independent. Thus it can be interpreted that the preference for a particular kind of a skin product depends on the age of the respondent.

4.4.2. Testing of Hypothesis – 2

In order to determine whether there is a significant difference between the Age and hair care products (hair oil, shampoo) brands, ANOVA test was applied by using SPSS. The null and alternate hypotheses are as follows,

H_0B: Age and preference for hair care products (hair oil, shampoo) brands are not independent

H_1B: Age and preference for skin care products (hair oil, shampoo) brands are independent

Table 5

ANOVA (age and **Hair care products)**

	Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
Between Groups	26.095	3	8.698	21.744	0
Within Groups	638.453	1596	0.4		
Total	664.548	1599			

***Source**: Primary Data*

From the table 29 it can be observed that the F value for the difference between means of Skin care products was 21.744 and its corresponding p value is 0.000<0.05. Since the p value is less than 0.05, we can conclude that age and hair care products (hair oil, shampoo) brands are not independent.

4.4.3. Testing of Hypothesis – 3

In order determine whether there is a significant difference between the Age and laundry products (Washing powder, washing soap), an ANOVA test was applied by using SPSS. The null and alternate hypotheses are as follows,

H_0C: Age and preference for laundry products (Washing powder, washing soap) brands are not independent

H_1C: Age and preference for laundary products (Washing powder, washing soap) brands are independent

Table 6

ANOVA (age and preference for Laundry Products

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	23.036	3	7.679	15.962	0
Within Groups	767.76	1596	0.481		
Total	790.796	1599			

***Source**: Primary Data*

From table 14 it is observed that the F value for the difference between means of laundry products (Washing powder, washing soap) was 15.962 and its corresponding p value is 0.000<0.05. Since the p value is less than 0.05, we can conclude that age and preference for laundry products (Washing powder, washing soap) brands are independent. The preference for the detergent products does not depend on the age of the respondents

4.4.4. Testing of Hypothesis – 4

In order determine whether there is a significant association between the attitudes of rural consumers towards various support media, a chi square test for equal proportions was applied by using SPSS. The null and alternate hypotheses are as follows,

H0D: There is no significant difference between the attitudes of rural consumers towards various support media.

H1D: There is a significant difference between the attitudes of rural consumers towards various support media.

Table 7

Chi-square (attitude towards various support media)

Test Statistics

	Which advertising media drives your attention very much towards an FMCG product?
Chi-Square	1970.550[a]
Df	9
Asymp. Sig.	0

Source: *Primary Data*

From the table 17 above it is observed that the value of chi square statistic was 1970.55 and its corresponding p value is 0.000<0.05. Since the p value is less that 0.05, we can conclude that there is a significant difference between the attitudes of rural consumers towards various support media. Different media vehicles have different impact on the consumers.

4.4.5. Testing of Hypothesis – 5

In order to determine whether there is a difference between the opinions of the respondents regarding the purchase behavior towards the selected FMCG products is dependent on retailer's suggestions, a chi square test for equal proportions was applied by using SPSS. The null and alternate hypotheses are as follows,

H_0E: Purchase behavior towards the selected FMCG products is not dependent on retailers' suggestions.

H_1E: Purchase behavior towards the selected FMCG products is dependent on retailers' suggestions.

Table 8

Chi-square retailers' suggestion

Test Statistics

	Retailers recommendation
Chi-Square	613.544[a]
Df	4
Asymp. Sig.	0

Source: *Primary Data*

From the table 18 it is observed that the value of chi square statistic was 613.544 and its corresponding p value is 0.000<0.05. Since the p value is less that 0.05, the null is not accepted, it is concluded that there is a significant difference between the opinions of the respondents regarding the purchase behavior towards the selected FMCG products is dependent on retailer's suggestions.

4.4.6. Testing of Hypothesis – 6

In order determine whether there is a difference between the opinions of the respondents regarding advertisements create awareness about the FMCG products in the selected product categories in the minds of the rural consumer, a chi square test for equal proportions was applied by using SPSS. The null and alternate hypotheses are as follows,

H0F: Advertisements do not create awareness about the FMCG products in the selected product categories in the minds of the rural consumer.

H1F: Advertisements create awareness about the FMCG products in the selected product categories in the minds of the rural consumer.

Table 9

Advertisements help gain awareness about the latest FMCG products launched in the market

Test Statistics	
	Advertisements help me gain an awareness about the latest FMCG products launched in the market:
Chi-Square	505.569[a]
Df	4
Asymp. Sig.	0.86

***Source**: Primary Data*

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 320.0.

From the table 19 it is observed that the value of chi square statistic was 505.569 and its corresponding p value is 0.86>0.05. Since the p value is more than 0.05, we can conclude that there is a significant difference between the opinions of the respondents regarding advertisements creating awareness about the FMCG products in the selected product categories in the minds of the rural consumer. The advertisements do create an impact on the minds of the rurals

4.4.7. Testing of Hypothesis – 7

In order to determine whether there is a difference between the opinions of the respondents regarding advertisements with visuals and sound effect are influencing factors on the buying decision of rural consumers for selected product categories, a chi square test for equal proportions was applied by using SPSS. The null and alternate hypotheses are as follows,

H0G: Advertisements with visuals and sound effect are not influencing factors on the buying decision of rural consumers for selected product categories

H1G: Advertisements with visuals and sound effect are influencing factors on the buying decision of rural consumers for selected product categories

Table 10

Advertisements with visuals and sounds have

Test Statistics	
	Visuals involved in it
Chi-Square	699.819[a]
Df	4
Asymp. Sig.	0.067

***Source**: Primary Data*

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 320.0.

From the table 20 it is observed that the value of chi square statistic was 505.569 and its corresponding p value is 0.067<0.05. Since the p value is more than 0.05, it is concluded that there is a significant difference between the opinions of the respondents regarding advertisements with visuals and sound effect are influencing factors on the buying decision of rural consumers for selected product categories.

5. FINDING, CONCLUSIONS AND SUGGESTIONS

The findings suggest that the rural women are more actively involved in the purchase of the products and they have their own opinion in the shopping of products. Thus the marketers need to design the marketing strategies to draw the women customers. Maximum of the respondents ranged between the age group of thirty six to forty five, which means the earning member of the family is making decision about the purchase. Most of the respondents were having some kind of education taken though it would be in the local language only as most of the villages were having schools in vernacular language only. It was found that the monthly family income of fifty percent respondents was in between the range of INR 5000-15000.

The demographic profile is very important to the marketers to study the needs and preference of the customers as per their gender, age, education and income. This helps the marketers to design the strategies which would be helpful in selling the products to customer of different age group, gender, education and income.

With the advent of the technology and a huge vogue for television, it has become easy for the marketers to make people in general aware about the brands and the different products available in the markets. Even the villagers love to watch television and get attracted by the moving visual, jingles and different kinds of advertisements. Strategies can be so designed which can not only make the villagers aware of the products but also make them to understand the difference between the genuine and the counterfeit products.

Advertisement can be designed in local languages with melodious jingles and song to attract the attention of the villagers. These advertisements can be shown on the local channels. It is found that the villagers are also attracted towards the village fairs and buy products of their needs in the fairs. The marketers can have special screening of their products advertisements to make them aware of the new products, the difference between the genuine and counterfeit products and also the consequences of using the counterfeiters.

The villagers trust the retailers blindly and purchase the products on the retailers' recommendation. The marketers should concentrate on this channel and give retailers their share of profits and other facilities in the way that they are motivated to sell the brands

The retailers are the most important links between the producers and the customers. This link needs to be utilized in a better manner. The retailers' opinion is very important to the rural customers. They trust the retailers blindly and believe that the retailers would suggest buying a product which is good for the customer. If the marketers keep good relations with the retailers than the marketers can gain good market share for their products. This can in a big way encourage the retailers to sell the branded products to the villagers.

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DEMARKETING: A SUSTAINABLE SUPPLY CHAIN STRATEGY

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ABSTRACT

During the last century, companies kept on inducing their customers to purchase more and use more. They belligerently exploited the natural resources to garner their own personal growth. However, over the past decade, the negative environmental impacts of overconsumption and growing clamors for Triple Bottom line (or Three Ps: People, Planet and Profits), have reshaped the perceptions of marketers and manufacturers significantly. They have realized that they can no longer afford to be indifferent to environmental and societal concerns. As "Triple bottom line", and "Sustainability" are increasingly becoming business necessities; the day-by-day increase in global regulatory need for green requirements seemed to be acting as a driver for organizations to take a call for initiating sustainability practices at the organizational and supply chain levels to reduce carbon footprint and also to embark on CSR programmes. In India several organizations are playing yeomen service in the area of corporate social responsibility, but still the problems of overconsumption, and improper product and resource usage need to be addressed. This paper explores role of demarketing and social marketing, as dimensions of responsibility adopted by organizations in their supply chain. We propose that organizations must use demarketing techniques not just to supplement their green marketing strategy but also use them to engage with supply chain partners and consumers to develop a framework for overall sustainability.

KEYWORDS: Demarketing, Tripple bottom line, carbon footprint, social marketing, sustainability, overconsumption

1. INTRODUCTION

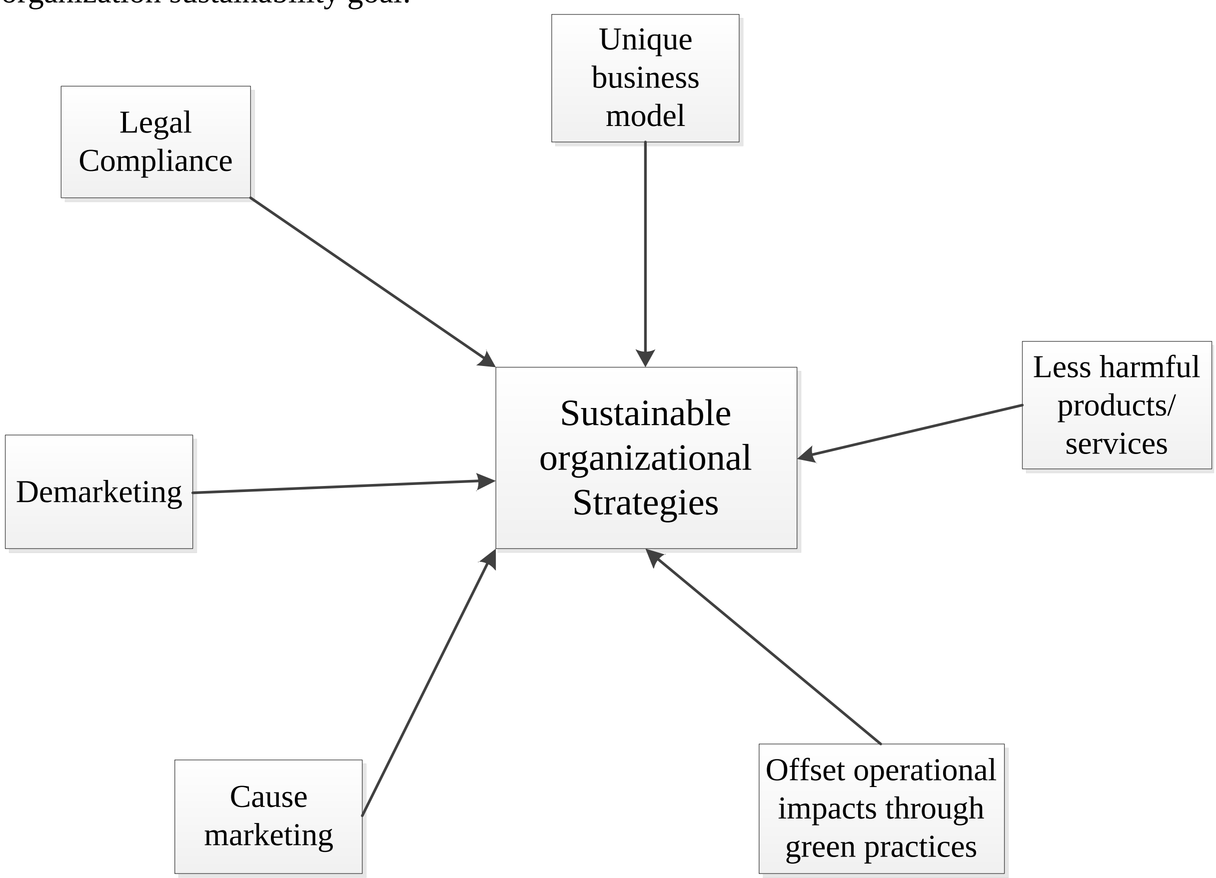
Overconsumption and excessive usage of products by consumers is harming their health or interest's. For example medicines such as cough syrups and antibiotics, fast food, aerated drinks, alcohol, cellphone, etc. has shown negative impacts on human health. People across several countries have conducted campaigns in an attempt to reduce the private usage of cars (Wall, 2005). Governments across the globe are discouraging smoking and drinking by steadily decreasing the number of places where people can smoke or drink. The anti-consumption movement regarding tobacco has gained lot of momentum in the last four decades; governments across different countries have targeted the tobacco industry in a determined demarketing drive (Moore, 2005).
A 2009 Business Council and Conference Board survey indicated that almost two thirds of U.S. CEOs believe that sustainability has become a mainstream concern for businesses. In the survey 81% of respondents agree that business leadership will increasingly be judged by their ability to

create enterprises that are economically, socially and environmentally viable. Indian industries' criteria for ethical and social features are yet to reach that anticipated level of sophistication and comprehensive coverage reveals a recent study by the National Human Rights Commission on corporate social responsibility. According to the study, 'Corporate Ethics' are much needed to stress the importance of sustainability, social development, stakeholders, consumer satisfaction and service orientation in place of profit orientation. The study is based on data collected from diverse sectors of 20 industries in different geographical locations of the country in the year 2012. This resulted in an exhaustive report in the shape of "Code of Ethics for Indian Industry". Kotler (2011) emphasized the need for reinventing marketing in the light of resource constraints and costs. He emphasized the increasing need for employing demarketing and social marketing.

2. THEORETICAL FRAMEWORK

Supply chain sustainability strategies

After observing several initiatives from the organizations a framework was developed for organization sustainability goal:



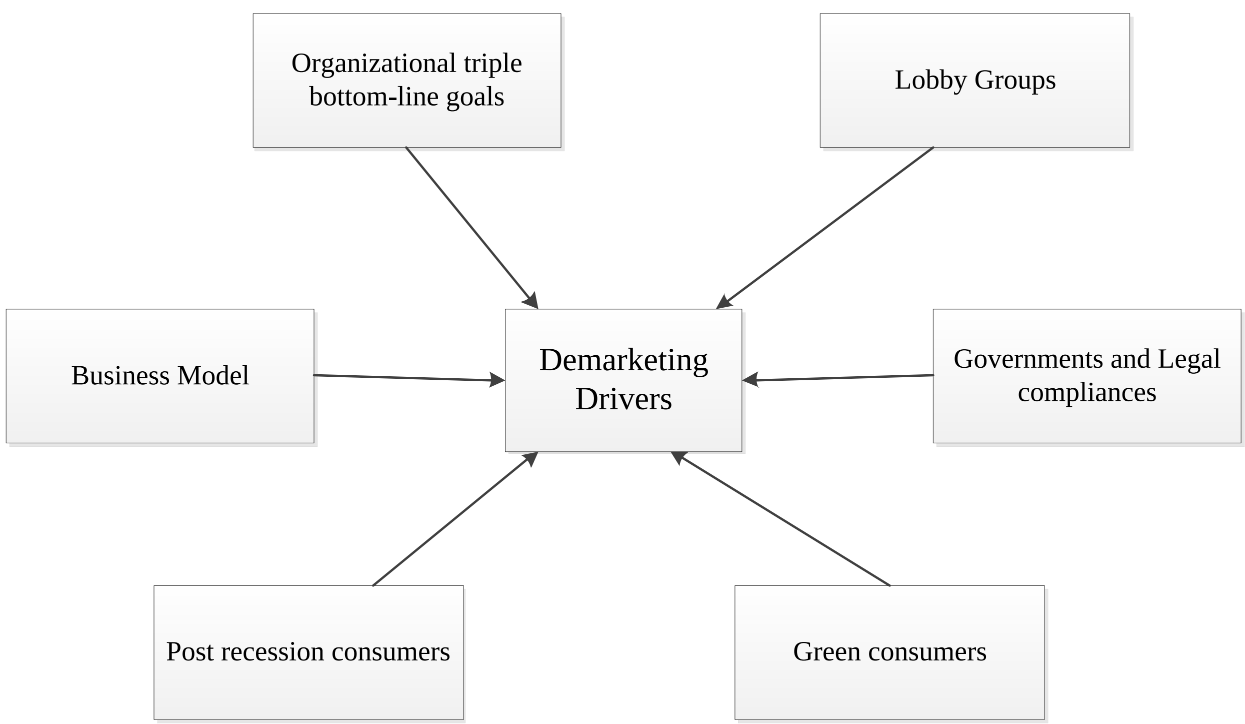
Unique Business Model: Organizations such as Aravind Eye Care Hospital and Narayana Hrudayalaya have it in their DNA as part of their business model, to be high-quality, low-cost service providers.

Cause marketing: Reliance Industries Ltd associated itself with Aamir Khan's TV programme *SatymevJayate* to propagate its CSR initiatives, to polish its image.

Offset Operational Impact: ITC, Coca-Cola India and cement companies belong to this category. Accused of causing water depletion in areas where it has bottling plants, Coca-Cola India has undertaken water conservation efforts. Near its paperboards plant, ITC embarked on an afforestation drive. Cement companies, to offset environmental damage due to mining, undertake water conservation/tree plantation initiatives.
Social Concerns: Several firms fund social causes to address social concerns far removed from their core business activities. For example, Tata Sons and Infosys Foundation have, over decades, funded projects in education, healthcare, drinking water, sanitation, etc.

Drivers for demarketing

Anti-consumption has become a necessity against consumption, Anti-consumption strategies can be implemented in many ways directly or indirectly on the products or producers. Factors such as profit, politics, morals and environmental sustainability are some anti-consumption drivers (Craig-Lees, 2006; Lee et al., 2008). Most anti-consumption movements happen at the consumer level, due to the frustration of an unequal balance of power between consumer groups and powerful multi-national organizations and nations.
Across different manufacturing sectors, more and more firms are initiating sustainable activities that would mark them as environmentally and socially conscientious organizations. Societal concerns or regulatory pressures or lobby groups or consumer movements are pushing firms progressively towards thinking about long-term well-being and sustainable operations.



Companies across the globe has taken several sustainability initiatives. Table-1 captures some such initiatives by leading companies.

Organization	**Activity**	**Responsibility**	**Drivers**
Infosys	Recognized sustainability as part of global economic and social well-being. Driven through three key factors - Social Contracts, Resource Intensity and Green Innovation.	Social and economic	Business model
Tata Group	Established Centres of Excellence in education, healthcare, research on climate. The Tata Affirmative Action Programme commits Tata companies to exercise positive discrimination in employing personnel from historically disadvantaged communities and in engaging them as business partners, without sacrificing merit or quality.	Social and economic	Organization triple bottom line
Oil companies	Save oil and LPG	Social and environmental	Organization triple bottom line
Pepsi	Eliminate the direct sale of full-sugar soft drinks to primary and secondary schools around the globe by 2012.	Social	Lobby Groups
ONGC	Setting up hospitals, with its own executives on their boards.	Social	Organization triple bottom line
Muruganantham (Entrepreneur)	Unable to afford sanitary products available in market, over 88% women in India use unhygienic clothes in their menstrual periods. Muruganantham, designed a low cost napkin making machine that can be operated by village women and can be installed on small scale. The cost of napkin is a fraction of the branded ones sold in market.	Social	Organization triple bottom line

Emerald Mithai Shop	Emerald Mithai shop is unique of its kind in Hyderabad. Shop is famous for Ghee sweets, Indian traditional sweets. Shop never uses polythene carry bags from the bigging of business. It dispenses items only in paper bags / cloth bags. All items are free from chemical colors and preservatives. They participate in several social causes like clay ganesh idol making, translocation of trees and rain water harvesting pit.	Environmental and Social	Green consumers

One of the global initiatives to demarket tobacco resulted in the formation of the Framework Convention on Tobacco Control (FCTC:WHO, 2003) in 2003, backed by the World Health Organization (WHO). The treaty came into force on 27 February 2005. 168 countries have signed the FCTC treaty and it is legally binding in 180 ratifying countries.

Between 1910 and 2010, nearly four and half trillion cigarettes and about forty trillion bidis were manufactured in India. The cigarettes and bidis can be considered to be responsible for over hundred million premature deaths. Bidis alone may have contributed to about seventy seven million of these deaths. The study was conducted by scientists from International Union against Tuberculosis and Lung Disease and the Healis-Sekhsaria Institute for Public Health, Mumbai. Thus, there is a great need on epidemiological research and a review of present tobacco control measures in India, the study identified. Tobacco use, particularly smoking of bidis and cigarettes, begins primarly in the adolescence or early adult life and then continues. One-third of the cancers are triggered by the use of tobacco and tobacco products.

In India, around 15-16 crore males and 7- 8 crore female consume tobacco products in various forms. As per ICMR statistics regarding the tobacco-related deaths, here are eight lakh deaths occurring every year in India, which are linked to tobacco, either in the form of cancer or the other related diseases. Despite law enforcing agencies, public ban, India is sitting on death bed of cancer. Cancer is increasing, but we find that the younger and younger generation is showing up on cancer data, and newer and newer formats of tobacco usages have been increasing. Formerly, just cigarettes were there. Nowadays gutkas, tablets and pudis, are gaining popularity. According to the Global Adult Tobacco Survey (GATS 2010) nearly one third of Indian population is addicted to smokeless tobacco. A large number of children and youth in India are addicted to smokeless tobacco. These products basically consist of tobacco with or without supari and are medically well proven to be harmful for health.

Smokeless tobacco contains nicotine and direct consumption of which is highly addictive. Scientific evidence has established that tobacco chewing causes cancer of mouth, ocesophagus (food pipe), larynx and pharynx (throat), pancreas, stomach, kidney and lung. It can also cause high blood pressure and other life threatening cardiovascular conditions like myocardial ischemia, stroke etc.

Consumption of tobacco may be controlled by raising the price of tobacco. It has proven to be one of the most effective strategies for checking and controlling tobacco use. Specifically the hiking cigarette prices would decrease the tobacco use, particularly among youth and young adults. Increases in cigarette excise taxes can lead to substantial long-term improvements in the nation's health. A 10% increase in the price of cigarettes is estimated to reduce consumption by nearly 4% among adults, and the potential reduction among young people and low-income populations is even higher. Evidence-based, statewide tobacco control programs that are comprehensive, sustained, and accountable have shown to reduce smoking rates, tobacco-related deaths, and diseases caused by smoking. A comprehensive program is a coordinated effort to establish tobacco free policies, reduce the social acceptability of tobacco use, promote cessation, help tobacco users quit, and prevent initiation of tobacco use. This approach combines educational, clinical, regulatory, economic, and social strategies.
In 2007, Coca-Cola ran a series of commercials for a campaign called Open Happiness; the spots were beautifully conceived, animated brushstrokes of colour and imagination, depicting a storyworld centered on the idea that happiness is what we create for ourselves in our everyday lives. They featured Coke as more than a product or brand, but as a support base for individual explorations around the meaning of happiness. There was no harsh product placement or forced messaging. The commercials tested remarkably well. Coca-cola may perhaps also use demarketing to address the issue as youth being its prime target segment.

3. LITERATURE REVIEW

Kotler and Levy (1971) propounded *demarketing* to reduce or control demand. The defined demarketing as *"that aspect of marketing that deals with discouraging customers in general or a certain class of customers in particular on either a temporary or permanent basis".* The article introduced three types of demarketing:

1. ***General demarketing,*** where a company tries to shrink the level of total demand.
2. ***Selective demarketing,*** where the company discourages the demand coming from a certain class of customer.
3. ***Ostensible demarketing***, where a company discourage demands as strategy for actually increasing it.

Environmental concerns, regulatory authorities, socially-conscious consumers and media-savvy lobbying groups have managed to push marketers towards demarketing. *C*onventionally marketers were trained to increase the demand rather decrease the demand (Kotler and Levy, 1971). But, demarketing can be used as differentiating strategy when product differentiation is not possible (Eitan Gestener et al., 1992).

Fisk (1973) proposes a theory of responsible consumption, which deliberated on the rational and efficient use of natural resources. Eitan Gestener etal (1992) found that demarketing can be used as differentiating strategy when product differentiation is not possible. Beck (1992) observed that we live in high risk society, the need arises to alter current consumption pattern are not radically altered, responsible behavior, will shift from voluntary to mandatory. Reducing product assortment sizes is observed in the direction for sustainability.

K. V Vandam and Paul (1996) observed that sustainable marketing requires regulatory frameworks within defined ecological framework. They suggested that marketing theories require new thinking in light of new role of marketing for sustainable development. Shultz and Holbrook (1999) opined that marketers need to evolve solutions to overcome the vilification they have been exposed to for encouraging social waste by working with consumers and interest groups. Edwards Sheu et al. (2008) observed that for demarketing of tobacco consumption among consumers all the elements of demarketing mix are not equally effective in affecting change. Kamaljit (2011) opined that changes in future marketing environment, marketing and demarketing occur together.

4. RESEARCH METHOD

The objective of this paper is to identify major works on demarketing research integrating sustainability thinking into supply chain management, and from there use them to identify the opportunities and issues for further research. A review of existing literature could be a valid approach, as it is one of the necessary step for structuring a research area and considered to be an integral part of any research work (Easterby-Smith et al. 2002). The research work in this paper is driven by theoretical pre-considerations and follows a clear process, as this allows conclusions to be drawn on the reviewed literature (Srivastava, 2007).

5. DATA ANALYSIS AND RESULT

Although companies such as Infosys and Coco –Cola India Pvt. Ltd. has doing great and commendable CSR activities, the framework helps to explore new opportunities and advocate social causes. The need of the hour is to look beyond efforts at organizational level and business purpose. The best and bravest, socially conscious organizations need display altruistic motives as we expect individuals to expect the same. The key rewards of demarketing and social marketing to date are within the healthcare field. Social marketing for health has the advantage that, even though the behavior being promoted might be unpalatable to the target market, there can be eventually a bigger element of self-interest that the marketer may demand to connect with and exploit. Promoting a consumption reduction plan among middle-class people is a difficult task because it goes against the highly consumption-orientated dominant social paradigm (Kilbourne et al., 1997). Consumption of a product is far easier to depict, portray and exaggerate in the media and in advertisement world than the joys of frugality or a simplified lifestyle. It is therefore a daunting task to make consumption reduction request to consumers, and despite the widespread commitment to the pursuit of sustainability amongst policy makers, it is something that policy makers may also find less appealing than conventional health-oriented social marketing campaigns.

6. CONCLUSION

Businesses, marketers and retailers can no longer afford to ignore societal pressures on sustainable business practices and investments. Thanks to media, lobbies, consumer pull and a social conscience, several initiatives have been taken across the world. Though these serve as beacons of hope, however, there is scope for more such actions. Organizations need to look beyond CSR as legal compliance and green practices for sustainability and cost cutting but be sensitive to current social and economic problems needs and address the societal interests through innovative use of demarketing and cause related marketing.

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THE EMERGING TRENDS IN THE HEALTHCARE SYSTEM & ITS SIGNIFICANT IMPACT ON CHANGING LANDSCAPE OF SALES MODELS ACROSS THE INDIAN PHARMA MARKET

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ABSTRACT

A closer look at **current Sales models** used by the Pharmaceutical Industry show that these models, though would have provided an edge to the players, have **largely focused** around single stakeholder, primarily **doctors**.

With limited options to expand portfolio and more of specific speciality of Doctors getting focused with set of therapies; companies started adopting newer commercial models and sales force structures (like **Task forces, Therapy experts, Key Account Manager structure, Contracted Sales Operations**, etc.) to more efficiently target the market. At the same time, companies **expanded their sales forces** aggressively in attempts to reach out to the **geographical** corners of the country, including rural markets in the late 2000s. In a bid to increase revenue further, **innovators** got engaged in **co-promotion** of their patented products and **out-licensing**.

A study of secondary research shows that **decision making power of** other stakeholders, including **patients, hospitals, payers, and insurance companies, have been on a steady rise** in recent years in healthcare delivery. Emerging trends in healthcare delivery will force the pharma players to re-think about their go-to-market strategy.

With market maturing, patients actively seeking healthcare and newer stakeholders emerging, resulting into declining effectiveness of current sales models will only lead to emergence of newer approaches in pharma selling, newer touch points with new stakeholders. Hence the Promotional channels, KPIs for the sales team need to evolve to include these new key stakeholders.

KEYWORDS: Sales models, Pharmaceutical Industry, Task forces, Therapy experts, Key Account Manager structure, Contracted Sales Operations, doctors, geographical, co-promotion, patients, hospitals, payers, and insurance companies.

1. INTRODUCTION

What this paper attempts to do is to showcase how sales models are being, and will continue to be, re-invented and redesigned across the Indian pharma market landscape in the years to come.

We discuss the drivers of the emerging sales models and provide implications for future research on strategic responses to institutional changes within other allied industries in India.

Pharma companies are growing both organically and inorganically. Inorganic growth is happening through licensing and partnerships as high valuation of assets is making acquisitions difficult. Further, companies are organically improving their operations and productivity by increasing field force sizes, penetrating in Tier II and III cities and by expanding their product portfolios.

Following the announcement of a formal 'Process patent' structure in 1995, Indian players started gearing up for the 'Product patent' regime. During this time, a transition from conservative sales models to aggressive and innovative sales models was observed. Companies geared up their R&D efforts to meet the product patent criteria, and undertook an aggressive expansion in early 2000s from a gradual ramp up of portfolio and sales force in late 90s.

So aggressive was the portfolio expansion, that the average number of **New brands launch** increased from nearly 700/year in the late 1990s to >2,500/year between 2000 and 2005.
At the same time, companies **expanded their sales forces** aggressively in attempts to reach out to the **geographical** corners of the country, including rural markets in the late 2000s.

In a bid to increase revenue further, **innovators** engaged in **co-promotion** of their patented products and **out-licensing**. Eg Eli Lilly entered out licensed Insulin range to Lupin, Co promotion of Anti Diabetic range of Boehringer Ingelheim with Lupin, J&J tied up with USV.

At the same time, with limited options to expand portfolio and more of specific speciality of Doctors getting focused with set of therapies; companies started adopting newer commercial models and sales force structures (like **Task forces, Therapy experts, Key Account Manager structure, Contracted Sales Operations**, etc.) to more efficiently target the market.

Companies who aggressively ramped-up were able to maintain their bottom line, thus indicating that these strategies paid off.

The companies moved from a Sales and Marketing structure to a **Business Unit**(SBU) structure to bring more accountability as a profit centre, manage evolving business needs. They also created a horizontal strategic excellence, functional support team across the BUs for process evaluation."

So adopting **specialized field forces to promote super-specialty products**, using a **traditional field force to promote other less specialized or Multi speciality products**, and a **CSO** (Contracted Sales Operations) **model for rural geographies** has worked well for them.

Thus, the industry has seen an adoption of multiple kinds of sales forces – an improvement over having a 'traditional sales force only' model.

2. THEORETICAL RESEARCH

Government regulations, Environmental factors and emerging trends in Healthcare will have a major impact on Sales organization models in Indian pharma companies**.**

Government regulations, policies will have a significant impact on sales models of the Indian Pharma industry. These Government regulations or an environmental factors includes Patent law (IPR Act), mandatory prescribing medicine in Generic by government hospitals, Price control through bringing lifesaving drugs under NLEM (National list of Essential Medicines), issuing 'Uniform Code for Pharmaceutical Marketing
Practices (UCPMP) as a part of compliance code for Doctors by Medical council of India

3. FRAMEWORK

(MCI) & for Drug industry through DCGI .

On other hand increasing education, awareness, easy availability of information on Google search engine and income earnings have prompted **Patients** to actively seek a healthy life-style, be well informed about treatment and emerged as stronger stakeholders.

Looking at the growing trend of **Patients** visiting the **hospitals, going for health Insurance**, shows that decision making power of other stakeholders, including patients, hospitals, payers, and insurance companies, healthcare providers will influence the sales models of pharma players.
Moreover with rising incidence of **Chronic**, **Non -Communicable Diseases** which are often treated by **Speciality of Doctors.** So focus will shift to 'Speciality or Super Speciality of Doctors' driven sales models.

Sales structures will evolve to manage new channels like **Corporate Hospitals or Modern format retail or Organized retail chain, OTC sales** through Media promotion.

Rising influence of new stakeholders in deciding treatment pathway will force the market players to look at newer touch points with new stakeholders and hence the new promotional channels, new commercial sales models.

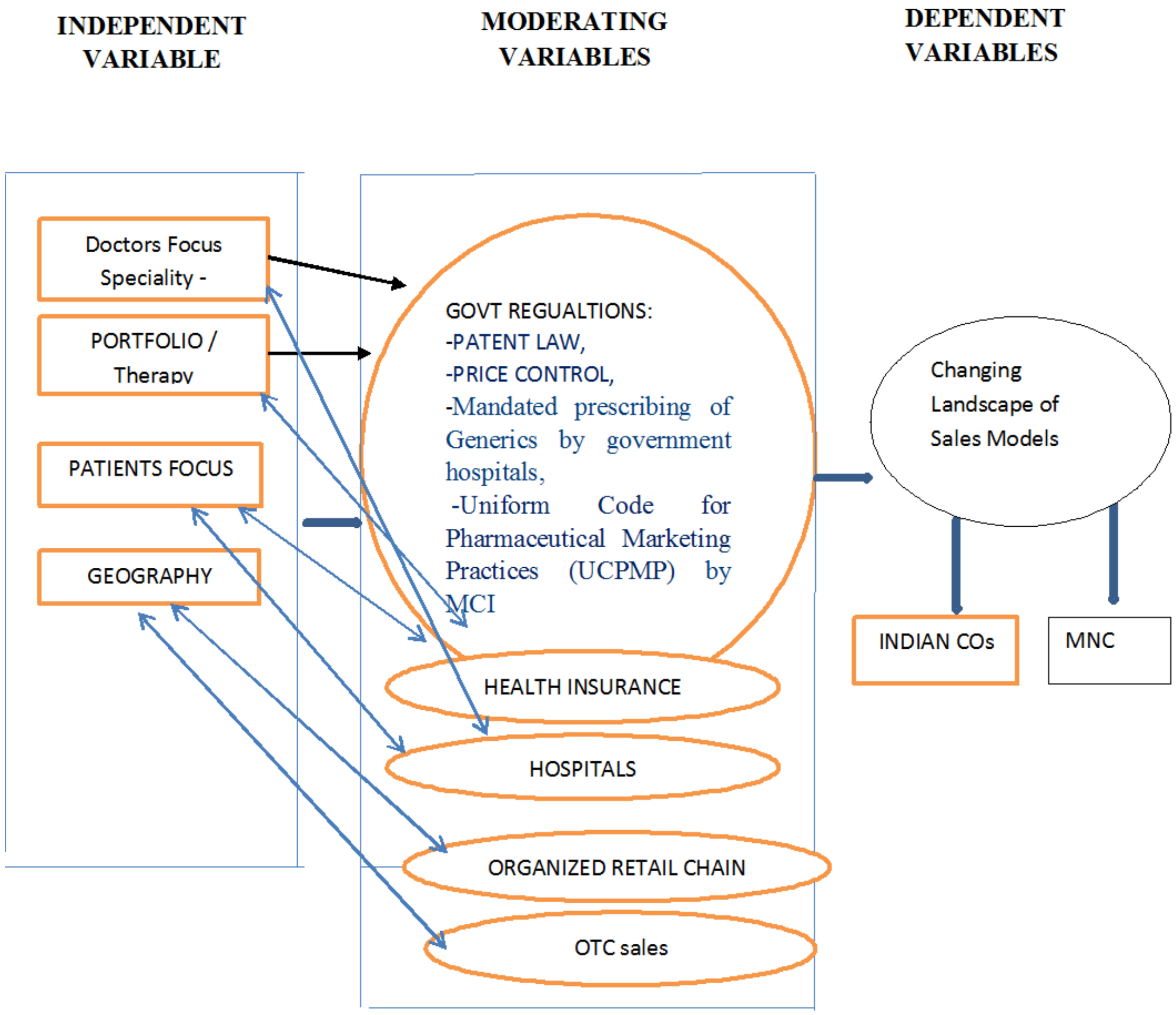
Independent Variables:
1. Patients
2. Doctors (with speciality of practice)
3. Portfolio (Therapy)
4. Geography

Moderating Variables:

1. Government regulations, policies –
   i) Patent law (IPR Act),
   ii) Mandatory prescribing of medicine in Generic form by government hospitals,
   iii) Price control,
   iv) issuing 'Uniform Code for Pharmaceutical Marketing Practices (UCPMP) as a part of compliance code for Doctors by Medical council of India (MCI).

2. Health Insurance
3. Hospital
4. Organised Retail chain
5. OTC sale

Dependent Variables: Sales Models / Sales Organization structure - i) Indian, ii) MNCs



4. SCOPE OF THE STUDY:

We have considered only those dimensions like Govt regulations, emerging trends in healthcare that can have direct impact on sales organization structure of the Indian pharma companies which include MNCs & large Indian Cos.

5. LITERATURE REVIEW

Different companies have adopted different strategies for sales organization structure, but the **key reason** cited for adapting these changes remains the same: **to provide better customer focus and targeting, enhance efficiencies, facilitate expansion to newer business areas**

(both therapies and geographies), and increase accountability of the resources.

One of the executives surveyed said, "We created multiple structures to expand coverage to new markets and therapy areas in line with growth expectation, support new launches, and strengthen key markets & institutional sales."For specialty products driven companies, **task forces** account for nearly 15% of the total sales force.

Interestingly, responses of those companies having **mature products** tending to an **OTX profile** suggest that **channel management** has already made inroads into pharma sales, accounting for nearly 20% of sales forces, second only to traditional sales force.

Geography also emerges as one of the key determinants of sales model adoption, which shows that companies are also looking at realigning their sales model around the varied need of various geographies.

An industry executive contacted by OPPI-IMS said "A new BU was created in our company to tap the opportunity in the **lower town classes**. The BU contribution to the overall business is close to 20%." Another executive said, "Emerging and untapped business in the **Class 3 or 4 towns and rural sector** will impact the future selling model," acknowledging the seriousness around rural consumers.

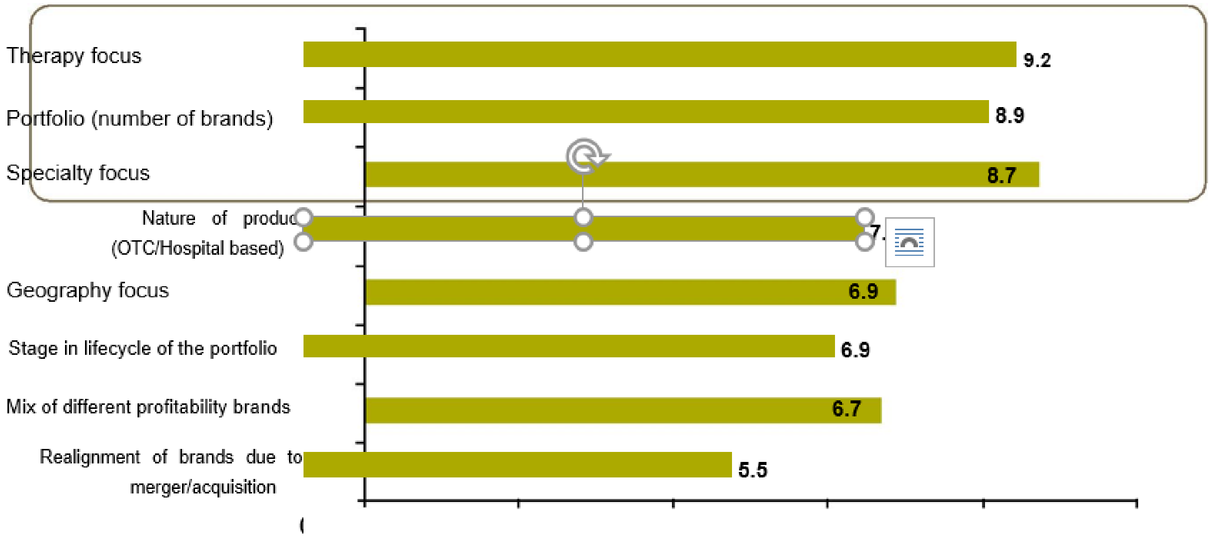
MNCs like Novartis, Sanofi-Aventis, Pfizer are actively expanding to Tier IV cities and below, creating profitable business models around rural geographies.
Extra-urban geographies require different sales models in addition to a different strategy in terms of portfolio, distribution, pricing and promotion.

Some of the large sized pharma companies such as USV, DRL, LUPIN, PFIZER having major dependence on Matured or Declining kind of Portfolio as a part of PLC, adopted multiple strategies, like divisionalization in different therapy segment to bring better focus on field implementation, creation of channel management to manage late life cycle brands, launch of an extra urban division to increase reach, and launch of super specialty division like Derma & Cardio. Eg INTAS, GLENMARK..

Previous studies suggest that this is not an isolated case, but is now a common practice followed by both Indian and MNC players.

As seen in **Fig.1 below, while key determinants of the sales force structure** are therapy focus, portfolio width and target doctor specialty, a few companies have also aligned their models around geographies and profitability.

Figure 1: Key Determinants of the Sales Force Models



A few of the new sales models seen adapted in the pharma industry (see **Fig. 2** below) are:

- **Therapy Focus Promotion**: Generally seen where a portfolio is specialized, therapy focused, and scripts are driven through chosen few doctors; generally in chronic segment.
- **Channel Management**: Mostly in OTC /OTX business; mature products with wider portfolio width.
- **Contract Sales Organizations (CSOs)**: Third-party organizations that can be contracted to create a non-permanent field force. CSOs can also offer other marketing support services such as contact centres, analytics, e-Detailing, and other non-personal promotion services.
- **Hospital Taskforce**: Exclusively to manage hospital business.
- **Specialty Driven Sales Model**: Applicable in scenarios where portfolio is built around 2 or 3 specialties.
- **Task Force**: Generally adopted for niche products in urban areas, such as fertility clinics or for new launches where the focus is on select top rung physicians only.
- **Out-sourced Sales Force**: Generally used for expansion in extra-urban geographies or with companies for whom medico-marketing is secondary (such as OTC or Consumer Healthcare companies).

No one model fits all. **As seen in Fig. 3 below, different models have their share of benefits and challenges;** innovative sales structures increase customer focus, but with additional investment. Hence, one needs to study the financial feasibility of a adopting a new commercial model.

While a few companies have started to reassess their selling model, many players still rely on traditional promotional channels, where doctor coverage, call frequency, and working days still define the KPIs for the sales force.

Figure 2: ***Newer Sales Force Models adopted***

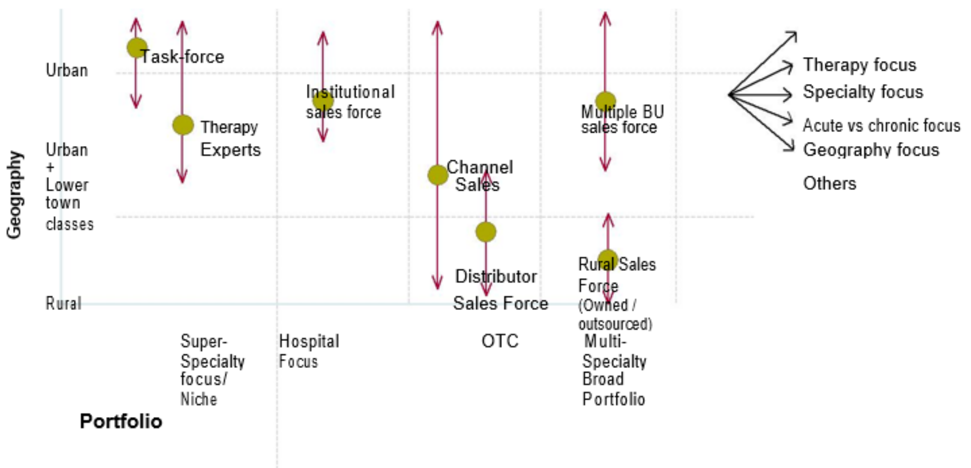


Figure 3: Key benefits and challenges with various sales structures

	Benefits	Challenges
Account management	• High Customer focus • Customer management	• High investment • Delay in payments
Channel management	• Wider reach and frequency • Helpful in managing large portfolio	• Lower margins • Resource constraint for the wider reach
Hospital management	• High focus on potential hospitals • High productivity for speciality business	• Price war • Formulary listing for new products
Task force structure	• High impact and productivity • Service to focus customers	• Scattered geography • Cost of operation
CSO	• Geographically better reach • Flexibility in Operation & reduces managerial cost	• Compliance and quality of operations • Tough to coordinate and align CSO to parent company

On other hand while we scanned the **international literature**, we found some more relevant papers as summarized below on emerging sales model structures in the pharma industry across globe.

A comparison of the United States and Germany in particular, and the United States and European Union more generally, suggests that how countries resolve tensions between protecting patients and empowering consumers will impact the international competitive

standing of their domestic pharmaceutical industries.
The Interface of Innovation and Regulation will become the platform for companies to navigate.

The first section focuses on developing tailored capabilities and approaches in key functions such as sales and marketing, R&D, clinical trials, and the supply chain. The second section focuses on individual countries—China, India, Russia, Brazil, and Mexico—and describes models to tackle the challenges and capture the opportunities they offer.

Unlocking Pharma Growth -Navigating the intricacies of emerging markets,

- **McKinsey &Co. 2012**

1. Rethinking the big pharma sales model: Thoughts from China

As the ranks of China's field forces continue to swell, pharma's traditional commercial model is showing signs of strain. It's time for multinationals to get smarter about how they sell.

Bing Chen, Franck Le Deu, and Jin Wang

A lack of productivity growth and intensifying cost pressures, Expansion of the Field force, covering larger area, Govt regulating Pricing.

2. Winning in the emerging middle class: Findings from Brazil

Global pharma companies are missing a chance to serve Brazil's increasingly prosperous and growing middle class.
Although wealthier segments spend more on drugs per capita, the scale of the underserved middle class remains opportunity.
Sanjeev Agarwal, Joãod'Almeida, Tracy Francis, and Paula Ramos

3. Counter strategies: Getting more value from the retail channel

Most pharma companies operating in emerging markets gear their sales and marketing efforts to physicians and hospitals. It's time they widened their horizons: building retail muscle could help them address a large and neglected opportunity.

Sanjeev Agarwal, Putney Cloos, Alka Goel, and Mary Rozenman

4. Using behavioural segmentation to boost sales force effectiveness

Many companies segment their customers by behavioural characteristics to increase sales,

but segmenting the field force is a new approach. Early experience in India suggests that it could improve sales force effectiveness in emerging markets.

Behavioural Segmentation of the Field Force:

1 **Target chasers**	Committed to achieve 100% of the target, whatever it is
2 **Superstars**	The best performers, always striving to come first
3 **Incentive hunters**	Push very hard to achieve financial incentives
4 **Sales manipulators**	Create sales imbalances by exploiting loopholes in incentive policy
5 **ROI maximizers**	Experts in extracting the most out of the marketing spend
6 **Career aspirants**	Focused on career moves and aspiring to make it big in the Organization
7 **Lazy laggards**	Underperformers who have practically given up
8 **Sentimentalists**	People with a strong emotional connection to the organization and managers

5. Public–private partnerships: An untapped strategic lever

Traditional approaches to PPPs have focused on their role in raising a company's profile or improving its corporate image. Now pharma companies are entering partnerships with governments and global organizations that deliver solid business benefits too.
Doan Hackley, Jorge Santos da Silva, and Lieven Van der Veken

An example is **Novartis's ArogyaParivar**:
Asocial business, working with village leaders and NGOs to provide healthcare for the rural poor in many Indian states.

6. How sustainable are branded generics?

Branded generics are delivering great growth and profitability in emerging markets, but how much longer can they continue to do so? A new approach helps companies assess the prospects market by market.
Sanjeev Agarwal, Andrew Cavey, and Ali Murad

7. Growth in Brazil's branded generics market:

The leader Mr Maurizio Billi, president of Eurofarma, one of Brazil's most eminent pharma companies talks about building a platform for growth and how local players can capitalize on their market knowledge.
Nicola Calicchio and Tracy Francis

8. China's digital healing

The world's biggest and most dynamic social media market is talking about health care. But are companies really listening?
Chiu, Chris Ip, Ari Silverman, and Florian Then

Making a start – A Digital way…

As executives look to generate value from this opportunity, they need to address a few important questions:

- Where do our key stakeholders tend to have their discussions?

- What do they say about therapeutic areas, treatment paradigms, products, and brands? What are their unmet medical needs?

- How do they feel about specific products and brands, and why?
- How can we draw out actionable insights from the wealth of information available? How will these insights change the way we engage with physicians?

- How well do we understand the rules of the social media game? Do we

- know how to listen to stakeholders properly? How far should we go in engaging customers? How can we mitigate regulatory risks?

- How does social media fit into our planning processes? Who in our organization should take responsibility for it? What capabilities do we need?

Helping Indian pharma reach its full potential

What will it take for India to join the world's leading pharma markets? As a period of flux brings proliferating opportunities, companies should quickly adapt their sales and marketing models, refocus their commercial investments, and collaborate within and beyond the industry.

Vikas Bhadoria, Ankur Bhajanka, Kaustubh Chakraborty, and Palash Mitra

Rediscover the essence of marketing

1. As new launch possibilities dwindle, building big brands will be vital for profitable growth, build competitive product differentiation.

2. Capabilities in disease management and market creation will be crucial. Companies will need to work with doctors to shape therapy and undertake direct-to-consumer activation in a way that complements their efforts. An example

is the collaborations that orthopaedic implant companies are entering into with key opinion leaders and other physicians to increase awareness of joint replacements and reduce fear of surgery.

3.Companies must sharpen their customer focus, moving away from a standardized approach to provide more customized messages. Marketing teams need to understand and engage distinct segments of physicians, pharmacists, and patients instead of using a one-size-fits-all approach.

These capabilities need to be institutionalized.

6. RESEARCH METHOD

The study is based on both **Primary & Secondary** data.

The **Primary data** collected through Field Survey by using structured Questionnaire & F2F Personal Interviews, discussions with the key stake holders.
The **Secondary data** collected from and other secondary sources :
Annual report of companies, online/ offline databases, online/offline journals, books, Periodicals etc.
Various websites e.g. www.nppaindia.nic.in, www.dfda.goa.gov.in, www.pharmabiz.com,; Literature survey, Research articles, various newspaper articles & blogs.

Major Source of Primary data collection:
We studied the Portfolio of selected large and medium sized pharma companies through **random stratified sampling.**

- As part of this **Primary research,** studied Therapy & Speciality that these companies were focusing through C MARC CPR data base.
- Also undertook a survey amongst key senior management personnel, wherein information was captured related to sales force structures, the principle behind their divisional set ups and the challenges faced therein.
- More than 10 companies responded to this survey. (pl refer bibliography).
- What is presented here is a brief glimpse of the findings of this survey, within the context of changing sales models in the Indian pharma industry.
- Supporting this data, are insights worked out by us on the basis of robust C MARC CPR Rx data & the **secondary research through literature** survey.

7. DATA ANALYSIS & DISCUSSION:

A closer look at current models used by the Industry show that these models, though they would have provided an edge to the players, have largely focused around single stakeholder, primarily doctors.

Moreover, there are fundamental differences in stake-holder evolution between Western and Indian markets, which to an extent explain the difference between commercial models in the West and in India. While doctors are still the centre of healthcare in India, the West has seen an emergence of consumers, payers, private insurance and patient groups as strong stake holders in healthcare management.

With Westernization of the Indian healthcare market, newer stakeholders are likely to gain more importance, and thus will be the need for newer ways and means of targeting them.

Leading MNCs like Sanofi-Aventis, Roche, Lilly, MSD, and GSK have already started engaging newer stakeholders (patients) to maintain their leadership in the market. Awareness campaigns, as adopted by MSD for Gardasil or by GSK for its vaccine portfolio or by Sanofi-Aventis for its top end brands have helped route the patients to their products.

Emerging trends in the healthcare system:

As we understand through various literature survey that's **even key trends in healthcare** which are likely to influence the way pharma companies adopt their sales models in the next decade.
These trends will see emergence of new stakeholders and promotional channels, that no company may afford to ignore, impacting future commercial models.

These key trends are:

i. Patients increasingly becoming strong stakeholders:

Increasing education, awareness, easy availability of information on Google search engine and income earnings have prompted patients to actively seek a healthy life-style. Patients have emerged as stronger stakeholders in the overall treatment chain, commanding what they want, at the price they want, where they want and by whom. Demand for preventive treatment, rather than curative, is increasingly becoming prominent amongst patients.

Vaccination is a case in study, where companies like GSK and MSD have targeted primarily the end-user to ramp up patient acquisition. Similarly Blood Sugar, Cholesterol check-up, increasing use of health check-up packages, awareness creation through media promotion, and government initiatives in rural health-care will only lead to further strengthening of patients as key stakeholders in the healthcare system.

MNCs have been actively engaging customers by providing **disease management services** to retail patients taking their products. Counselling, physiotherapy sessions, and diagnostic tests are all services being provided to patients.

A leading MNC vaccine player reaches out to their patients through an SMS reminder service. An industry executive mentioned use of "call centres" for chronic disease management as a possibility.

Patient reach programs will require different set ups and servicing teams with specific skill sets. Thus, implementation of patient engagement programs will require adoption of different sales and service models, and hence newer capabilities by market players

ii. Emergence of new healthcare delivery channels -The hospital segment

The hospital segment is strongly emerging in the Indian healthcare sector. Private and corporate hospitals have grown at a 15-20% on YOY basis, and the trend is expected to continue for the next 5 years as well.
Penetration in Tier II cities and medical tourism will further boost growth of corporate hospitals. The up-coming increase in number of corporate hospitals will result in a structure where players will not only require a hospital sales force, but also the key account managers to handle relationships with wider set of stakeholders like purchase managers, administrative staff, and nursing staff.

Many of the companies surveyed either already have a hospital division, or are planning to have one in next 2-3 years.

iii. Uptake of Generics by government hospital sector

Mandated prescribing of Generics by government hospitals is expected to strongly impact the sales of branded drugs in the long run. Mandated generics prescription in the West has already led to emergence of new sales model aimed at generics promotion.

Though we do not see this trend impacting India much in next 5 years, over next decade or so it will be interesting to see what new commercial models pharma players adopt.

Pharma companies may also need to engage aggressively with government bodies like pricing authorities, or approval committees.

iv. Growing Chronic Therapy –Rising incidence of Non -Communicable Diseases

The contribution of chronic therapies to the IPM has gone up from 20 % in early 2000 to 30% in 2013. Chronic therapies (cardio, gastro, CNS and anti-diabetic) have outperformed the market for the past four years and are growing at a rate of 14%, faster than the acute therapies (anti-infectives, respiratory, pain and gynaec) which grew at 9.6%. Chronic therapy is more often prescribed by speciality of Drs so focus is on ‘Speciality or Super Speciality’ driven sales models.

v. Growing OTC sector

Use of media in driving brand promotion and reaching out to masses has opened up a new avenue for Pharma players to grow beyond traditional channels.
Revital, Gelusil, Liv 52, Volini, No Marks, Crocin are the classic case studies, where pharma players expanded their reach through newer promotional channels like media promotion or in-store branding.

Because OTC implies reaching out to patients and consumers without doctor intervention, it necessitates focusing attention on pharmacies directly, **developing new distribution models, pricing and consumer targeting.**

Healthcare FMCG companies like GSKCH, Abbott Nutrition, Colgate, Nestle and P&G etc have a dedicated medical detailing field force meeting doctors and nutritionists to promote their brand too.

Emergence of OTC is further expected to catch-up in next 5-10 years, with many more companies eyeing to acquire a broader patient base through multi-channel marketing. Hence, pharma companies need to adopt a different model for targeting customers.

vi. Organized retail pharmacy chains

Increasing spread of organized pharmacy chains like Apollo, Guardian and 98.4, Noble, will make pharma players think about managing the growing power of newer distribution channels. According to industry estimates, organized retail pharmacy chains already account for nearly 5% of pharma sales in India, and their share is increasing year on year. These chains cannot be ignored any longer.

Over a period of time, the role of organized retail players may evolve from mere distribution of drugs to managing patients' health. Pharma companies may need to think about how to engage with these chains to deliver more and more services to their patients.

With increasing share of sales, the demand for further discounting by these chains is not far away. Not only will these pharmacies demand price discounting, they will impact the way the supply chain is currently structured. With media promotion driving the customer pull, **merchandising** will take a bigger role in overall sales promotion at these pharmacies.

Thus, the association between pharma companies and these chains needs to grow in a manner that both parties benefit from the inter-play.

vii. Rise of health insurance

It is estimated that the total population covered under health insurance is around 20% - 30 % at present. Increasing penetration of health insurance will increase power of insurance companies to decide inclusion or exclusion of drugs in re-imbursement list. The possible emergence of a drug re-imbursement list by Indian insurance companies cannot be ruled out, which may eventually lead to dictating the business terms by insurance companies to pharma players.

Companies like ICICI Lombard now eyeing to launch **disease specific insurance** covering cost of medications as well. One such policy, called Diabetes Care, is already in the market.

Considering Insurance companies as a key stakeholder in Pharma commercial model, products approval, reimbursement will increasingly become crucial.

RESULTS ……EMERGING TRENDS IMPACT ON SALES ORGANIZATION MODELS

A study by IMSCG and looking at the growing trend of patients visiting the hospitals, going for health Insurance, shows that decision making power of other stakeholders, including patients, hospitals, payers, and insurance companies, has been on a steady rise in recent years.

Rising influence of new stakeholders in deciding treatment pathway will force the market players to look at newer touch points with new stakeholders and hence the promotional channels.

KPIs for the sales team need to evolve to include these new key stakeholders.

Each of the above trends will impact the pharma sales model in their own way, paving the way for new commercial models in the pharmaceutical industry.

Industry also seems to acknowledge these trends as one industry executive stated, "Sales structures will evolve to manage new channels like corporate hospitals or modern format retail. Government policies, payers and healthcare providers will influence the sales models of pharma players.

Adopt new sales force practices

Companies will need to shift their focus to key differentiators that will help them achieve sales force excellence.

The first of these is enhanced performance management and dialogues. For instance, instead of focusing on the previous month or quarter, the top team should develop

a forward-looking view of performance and drive interventions accordingly.

The second differentiator is a sharper focus on people. National and regional sales heads should identify where talent can make the biggest difference.

The third differentiator is a readiness to challenge entrenched views about what is possible. One example is the view that newly deployed sales reps need two to three years to become fully productive; in fact, with the right expectations and support they can ramp up in as little as 12 to 18 months.

AN EMERGENCE OF THE CONCEPT OF COMMERCIAL EXCELLENCE, SFE – SALES FORCE EFFECTIVENESS

Sales force will have to manage end customer connect besides marketing brands to doctors". Another executive feels patients will gain more importance in future, saying, "Most companies will have focused approach and work towards better customer service leading to patient benefit."

We feel that as the momentum of evolution of these trends gather pace, so will the evolution of pharma commercial models in the next decade. With these changes, the industry has witnessed an emergence of the concept of **Commercial Excellence, SFE – Sales Force Effectiveness.**

Within the last 5 to 6 years, companies have also created a dedicated SFE function, with the purpose of improving the productivity of the sales forces. The role of SFE is expected to evolve strongly over the next 5 years, involving in-depth analytics so as to lead to scientific decision making; from coordinating sales force activities to managing ROI through informed decision making with an end objective of improving efficiencies of existing systems.
Thus, each incremental sales rep being added to sales force will have its own justification.

With eroding product differentiation the sales and marketing capabilities will be the key differentiator. The Indian pharma industry will need to develop sales force competency and elements of SFE will take the driving seat. The reward systems will incorporate balance of sales achievement with equal emphasis in effort parameters.

Considering that the largest resource allocation in companies takes place on sales teams, it becomes important that SFE as a function be evaluated more seriously.

In order to institutionalize the discipline of SFE, companies will need to build capabilities for an enterprise-wide SFE setup which will be actively engaged in enabling investments into innovative and hybrid sales models or demand generation models.

ADAPTING NEW COMMERCIAL MODELS

Emerging trends in healthcare delivery will force the pharma players to re-think about their go-to-market strategy.

Some key questions to ask are :

•Is my current sales model sustainable in the future?

•Is my current sales model optimal for future Market scenario?

• How should I evolve and adapt to these changes?

Answers are not easy to come by, but a few companies will lead the way.

According to the OPPI-IMSCG study, key players in the industry believe that adaptation of current sales model will be a must for survival.

However, to meet the requirements of changing environment, they will have to adopt new business models and innovative ideas to service their evolving customers faster and better.

Developments in the health insurance sector, medical technology ,mobile telephony can help the growth of the pharma industry by removing financial and physical barriers to healthcare access in India.

Some of these strategies can be summarized as :

portfolio optimisation

expansion into newer markets

improving sales force productivity

including newer technology

building a robust internal compliance programme

Focus on improving sales force productivity

Companies have focused on increasing the productivity of their field forces with an aim of optimisation, re-deploying in high potential territories, implementing robust processes and using technology to monitor the performances on regular basis, thereby trying to bring in enhanced efficiency in the overall sales force.

Other Regulatory trends impacting Sales models during 2013 – 2016

Implementation of NPPA by the government (NLEM based Price control)

The Govt brought certain drugs which were declared as part of the National List of Essential Medicines –NLEM, under Price control through NPPA (National Pharmaceutical Pricing Authority). This resulted in the margins of all products that came under the purview of the NPPA drop from 20% and 10% to 16% and 8% for the retailers and the stockists respectively.

This decrease in stockist margins led to a significant uncertainty among many stockists regarding the feasibility of staying in business due to the lower profitability post the margin reduction.

Increase in adoption to MCI guidelines
More companies were seen adopting the MCI guidelines, the draft Uniform Code for Pharmaceutical Marketing Practices (UCPMP) and the Organisation of Pharmaceutical Producers of India (OPPI) code, for the promotion of products to doctors and changes being made to the sales and marketing strategies across the industry.

Alliances and partnerships
Another trend seen in the market was the partnerships between the multinational and Indian companies with an aim of increasing the reach in terms of the number of customers and geographical coverage for patented molecules. These were seen in the form of co-marketing, co-promotion, licensing and joint

THE EMERGENCE OF INNOVATIVE SALES MODELS

With the emergence of innovative sales models like key account management, hospital task force, channel management, therapy specialist, and media OTC promotion, it is clear where sales models are heading. Companies are seriously looking to have a dedicated team for rural markets.

The emerging Digital technologies called **SMAC: social networking, mobile computing, analytics and cloud computing**, are likely to play a crucial role in addressing these challenges, improving operational efficiencies of pharmaceuticals companies.

Though each of these technologies have a unique impact, they also complement each other in order to drive business transformation. These technologies jointly foster innovation through new ways of product development, customer service and interaction and partnerships, thereby creating value and stimulating success.

Need to enhance Capabilities of Sales Force
Each of these models clearly points towards targeted approach to new stakeholders, though it’s too early to predict the nuances of each of the models.

The role of existing resources will also evolve from mere touch points with customers to engaging final consumers and managing the health of the patients.

Pharma Sales structure will slowly move towards a more scientific dialogue between the sales force and the doctor. This would require highly trained MRs with good ability to engage doctors more effectively.

The OPPI-IMSCG study predicts the gradual shift of the traditional approach of meeting the customer, to future approach of relationship building and engaging with customers.
Much will change. "Managing the patients together" is perceived to be the key to success.

Delinking the role of sales force from stockist management will help sales teams to focus exclusively on customers. Engaging multiple stakeholders through multi-channel promotion and touch-points will be the crucial.

Segmenting the customers, from current Potential-Support Model to more evolved models like Behavioural Segmentation will provide the cutting edge to the players. e-detailing, e-seminars, e-doctor meetings, and online awareness campaigns will drive the patient flow to the healthcare system.

Thus, KPIs for the sales forces may evolve as well.

Industry experts also predict that evolving and harvesting newer touch points with patients will be a key to success.

Study of patient flows in healthcare is likely to gain importance. Not only will patient flow study impact the sales model, it will also impact the portfolio choice for the players. An industry executive pointed out, "Key Account Management will have increasing importance for MNCs with pipeline of patented products and strategic partnering initiative will also impact sales models."

MNCs are expected to lead the change and that trend of micro-targeting has already begun. Companies like MSD, Sanofi-Aventis, and Roche have shown that value, and not cost, drives the healthcare choice. Januvia,(though much lesser than international price) already clocked sales of >Rs 150 crore; novel product Jardiance, Trazenta launched by Boehringer Ingelheim are also priced much higher and have already clocked sales of >Rs 100 crores
..
Thus, its well said by a pharma executive: "The way of marketing differentiated products, depending on their life cycle stage, will be of utmost importance. Newer ways of promotion too will have to be considered.

8. CONCLUSION

Declining effectiveness of current sales models and emergence of new key stakeholders will only lead to emergence of newer approaches in pharma selling. Though the approaches will vary vastly from company to company, the trend has already started.

To do this successfully and build a better business case for the same, companies will need to closely examine how investments are channelized into each of the various initiatives – balancing financial rigour with overall implementability and maintain their competitive edge, service their evolving customers faster and better. To explore opportunities, companies need to collaborate within and beyond the industry. KPIs, Sales Force Effectiveness & Capabilities of the sales team need to evolve with the new key stakeholders becoming important .

Where does the future lie?

Is KAM (Key Account Management) the solution ?

Is it the CSO that will emerge?

Will channel management gain most importance?

To what extent should market coverage be increased?
How would one need to balance this with cost effectiveness?
The answers will emerge only with time, but with market maturing, patients actively seeking healthcare, and newer stakeholders emerging, another round of adaptation in pharma sales model is inevitable. No single business model may suffice in future. The future will belong to hybrid business models, with different structures co-existing together.

9. SIGNIFICANCE OF THE RESEARCH STUDY

The Interface of Innovation and Regulation will become the platform for companies to navigate.

We looked at the changing landscape of the industry, the regulatory hurdles and the emerging technologies that need to be considered in order to achieve a sustainable and compliant long-term growth, improve the bottom line.
We hope this paper presents an overview of industry issues and throws light on the industry potential so that the concerned stake holders which includes society at large, can participate in Healthcare system in a cost effective manner. It enables pharma companies to more efficiently target the market. It could improve the sales force productivity through Sales Force Effectiveness.

Further scope of study

Research can be conducted focusing on the specific segments of the sector. The innovative methods in marketing and sales of the drugs and the distribution, to penetrate into the rural area of India, can be studied. It improves the market share of Indian pharmaceutical companies and the availability of the needed medicines to the rural population.

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CONSUMER BEHAVIOUR OF SOFT DRINK MARKET IN INDIA

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ABSTRACT

For FMCG products like soft drinks consumer behaviour is influenced by brand image, taste, flavor, advertising and sales promotion strategies, product range, demographic profile, packaging, celebrity endorsement, occasions etc. Both primary and secondary data were collected. This is a descriptive study. A market survey of 170 consumers and personal interview of 50 retailers was carried out in Pune city. The results of the survey reveal that the young consumers are consuming carbonated soft drinks more than working class and elderly consumers. Buying reasons of soft drink are: taste, thirst quenching, flavor, brand name and influence of brand ambassador, price and availability. There is no specific time for soft drink consumption. Thirst quenching is the major reason for soft drink purchase. Male consumers prefer carbonated soft drink whereas female consumers prefer non- carbonated soft drink. Unique benefits offered in new products, packing and colors are also driving forces for higher consumption of soft drink. Most convenient package preferred is metal cans. Brand name plays a major role in selection of soft drink products followed by taste and flavour. The most preferred brands of carbonated soft drink are Sprite and Thumps Up. Fruit juices and health drinks are consumed by educated working class as they are more health conscious and are able to afford. The retailers stated that the consumer behaviour depends on culture, value and traditions. They also stated that celebrity endorsement and availability during summer season play major role in soft drink consumption.

KEYWORDS: Carbonated beverage1, non- carbonated beverage2 soft drink 3, consumer behaviour 4 and brand image5.

1. PURPOSE OF STUDY

For FMCG products like soft drinks consumer behaviour is complex and influenced by many factors. This research was carried out with the main purpose of finding out as to whether this target market has shifted to health drinks or not and reasons and frequency of soft drink consumption. The other purpose is to know impact of brand ambassador's endorsement and packaging on the consumer behavior of soft drink market in India.

2. INTRODUCTION

Soft drink refers to any class of non-alcoholic beverages and broadly includes water, fruit juices, carbonated beverages, sports and health drinks. Soft drink normally contains a natural or artificial sweetening agent, edible acid natural or artificial sweetening flavours or sometimes juices (Vaux 2011).The term originated to distinguish the flavoured drinks from hard drinks The Indian soft drink market is dominated by Coca Cola, Pepsi and Parle. A market survey was carried out in Pune city to understand consumer behavior of soft drink market and also retailers were interviewed to get opinions of intermediaries on the topic. The results of survey and personal interview are highlighted in this paper.

3. LITERATURE REVIEW

Consumer behaviour is the key success of any company. When marketers offer unique benefits in a new product they encourage subtype. When Pepsi Co or Coca -cola introduced a new product in the market they changed the consumer behaviour. When Pepsi Co attempted to introduce another category breakfast cola's Pepsi AM, it was successful.

Kretter, Kadekova et al (2010)" country of origin of food and consumer preferences in segment of university students" consumer prefer attributes like freshness, flavour and also price. Consumers prefer fruit juices because of their flavours and freshness. Gupta & Gupta (2008) " fruit drinks how healthy and safe" discussed that fruit drinks are popularly used in the most urban households today are flooded with a large variety of fruit juices e.g.: mango, apple , guava , litchi. The main reason for increased consumption of fruit juice is changing life styles and rising level of health consciousness among consumers and parents. They believe that these drinks provide superior nutrition because of their status and high beverage costs. Gupta Parul (2003) studied the Coke and Pepsi's to push sales soft drink giants. Coca-Cola and Pepsi have signed thousands of new retailers in a drive into rural India that has pushed sales steeply.[3]

Jyoti Karun (2002), studied Coca-Cola India's marketing plan for summer peak sales season is vested with rural thrust and rides on the back of its newly launched 200ml bottle, priced between Rs 5 to Rs 6 across the country. Nishu Sharma (2011)studied "Comparative study of consumption patterns of soft drinks and fruit juices" studies shows how different consumers consume soft drinks and fruit juices with respect to different patterns of consumption. Deepak Kumar Chechani (2008) carried out "a study of factor influencing choice of soft drinks" in Udaipur City studied different factors influencing the choice of soft drink consumption. Bhushan Mehta (2012) carried out an analysis of brand preference of soft drinks in Global Markets provided details regarding consumers' preference on soft drinks.

Report on Indian Beverage Industry (2012) disclosed the following things regarding beverage market. A Beverage is a drink specially prepared for human consumption. Beverages almost largely consist of water. Drinks often consumed include: Water (both flat or carbonated) , Juice based drinks, Soft drinks Sports and Energy drinks, alcoholic beverages, coffee, tea ,dairy products like milk. Commonly, drinks are filled into containers like glass or plastic bottles, steel or aluminum cans as well as cardboard support packages, like “tetra pack” or others. India has a population of more than 1,150 Billion which is behind China. According to the estimates, by 2030 India population will be around 1.450 Billion and will surpass China to become the World largest in terms of population. Beverage Industry which is directly related to population is expected to maintain robust growth[3].

Consumption is the sole purpose of all production activities. Peter Drucker says,” it is the consumer who determines what the business is, a consumer is the one who does some physical activities and deliberates to take decisions concerning purchase based on his or evaluation of products and services. Consumer behavior reflects the totality of decisions with respect to acquisition, consumption and disposition of goods , services ,time and idea .To understand consumer is not easy job as his/her behavior is mostly unique, complex and is influenced by many factors
Marketing of soft drink started from 17th century to imitate the popular and naturally effervescent waters of famous springs with primary interest in their therapeutic values. Since then there have been many brands of different producers (Branske 2011). Some consumers are said to totally brand loyal to certain brands and others are quite different in their purchase behaviour and prefer brand switching. A great portion of soft drink market is covered by carbonated soft and synthetic juices.[5]

4. METHODOLOGY

The following is flow of information of a market survey carried out to study Consumer behaviour of soft drink market in India.
Objectives:-

1. To study purchase beahviour of soft drink consumers in India.
2. To understand relationship between soft drink consumer’s purchase behavior and demographic profile.
3. To study preferences of soft drink consumers in India.

Hypotheses
Three hypotheses were formulated and hypothesis testing is done. Hypothesis was carried out by using Chi- Square test after verifying normality assumption.
The other research paper details are given below-

Research Design
This is descriptive type of study.

a. Scope of the study- Pune city
b. Duration of the study- July 2016 to December 2016
c. Type of Universe- Approximately 5.0 million.
d. Sample Design- It was a non-probability, purposive.
e. Sample Size-For this study a sample size of 170 respondents was chosen. $z = 1.96\ at\ 95\%\ confidance\ level$ was considered.
f. Also personal interviews of 50 retailers were carried out to get opinions of intermediaries on the topic.
g. Research Instrument- Research instrument used for this study was a questionnaire and personal interviews of retailers.

h. Scaling Technique- Rating scale.
i. Parameter of interest- Soft drinks were consumed by all consumers in demographic profile.
j. Method of Data Collection- Both primary and secondary data were collected. Secondary data was collected through books, research papers, newspapers and visiting web-sites.
Primary data was collected based on the answers by respondents to various questions in the questionnaire and response by retailers to personal interview.

Limitations of the study

1. Some respondents did not disclose real opinion on the topic.
2. Due to paucity of funds and time constraints it was not possible for larger area coverage.

Research Questions

The following broad areas on which questions were asked to respondents-

1. What the factors which attract soft drink consumers in their consumption?
2. What are the influencing factors in soft drink consumption?
3. What are consumer preferences in making soft drink purchase decisions?
4. What the selection criteria of soft drink consumers?
5. To understand relationship between soft drink consumer's purchase behavior and demographic profile

Data Analysis results/Findings

1. Gender of soft drink consumer

Gender of soft drink consumer is shown in table 1 below:-

		Frequency	**Percentage**	**Valid %**	**Cumulative %**
Valid	Male	112	65.9	65.9	65.9
	Female	58	34.1	34.1	34.1
		170	100,0	100.0	100.0

Table 1: Gender of soft drink consumer.

Results

112(65.9%) males and 58 (34.1%) were females were selected.

2. Soft drink consumer's occupation

Soft drink consumer's occupation is shown in table 2 below

		Frequency	**Percent**	**Valid Percent**	**Cumulative %**
Valid	Professionals	23	13.5	13.5	13.5
	Businessmen	22	12.9	12.9	26.5
	Service	23	13.5	13.5	40.0
	Students	90	52.9	52.9	92.9
	Others	12	7.1	7.1	100.0
	Total	170	100.0	100.0	100.0

Table 2: Soft drink consumer's Occupation

Results

a. 170 respondents surveyed cover 23(13.5%) professionals, 22(12.9%) businessmen, 23(13.5%) service 90 students (52.9%) and 12(7.1%) others.
b. Out of 170 respondents surveyed, majority portion was covered by the students, followed by professionals and service.
c. Businessmen and others respondents were having least consumption.

3. Consumer preferences of soft drink

The following table 3 shows consumer preferences of soft drink

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Carbonated beverage	85	50.0	50.0	50.0
	Non-carbonated beverage	43	25.3	25.3	25.3
	Milk products	14	14.0	8.2	8.2
	Energy Drinks	09	09	5.3	5.3
	Fruit juice	19	19	11.2	11.2
	Total	170	100.0	100.0	100.0

Table 3: Consumer preferences of soft drink

Results

1. Consumer preferences of soft drinks were: carbonated beverages 85(50%), non – carbonated beverages 43(25.3%), milk products 14(8.2%).energy drinks 9(5.3%) and 19(11.2%) fruit juice.
2. The most preferred and least preferred soft drinks were carbonated beverage and energy drinks respectively.

4. Soft drink consumer age group

The following table 4 shows details of Soft drink consumer age group

Valid	Age	Frequency	Percent	Valid Percent	Cumulative Percent
	15-20	78	45.9	45.9	45.9
	21-25	57	33.5	33.5	79.4
	26-30	12	7.1	7.1	86.5
	31-40	11	6.5	6.5	92.9
	Above 41	12	7.1	7,1	100,0
	Total	170			

Table 4: Soft drink consumer age group

Results

a. 78(45.8 %) were in age group of 15-20 years where as 57(33.5) were in the age group of 21-25 years.
b. 26-30 years soft drink consumers were 12(7.1%) , 31-40 age group were 11(6.5%) and 12(7.1%) were in the age group of above 41 years.

5. Why consumers prefer kind of soft drink?

Why consumers prefer kind of soft drink is shown in the following table 5 below

	Preference soft drink due to-	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quenches Thirst	90	52.9	52.9	52.9
	Gives Energy	11	6.5	6.5	59.4
	Style	34	20.0	20.0	79.4
	Passion	23	13.5	13.5	92.4
	Other	12	7.1	7.1	100.0
	Total	170	100,0	100.0	

Table 5: Why consumers prefer kind of soft drink?

Results

a. 90 (52.9%) preferred soft drink because they felt quench thirst whereas 34(20%) preferred as they felt it gave them a style.
b. Remaining preferences of soft drink consumers were passion 23 (13.5%) and others were 12(7.1%).

6. Soft drink consumer's reasons for buying

Soft drink consumer's reasons for buying are shown in the following table 6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Brand name	79	46.5	46.5	46.5
	Taste and flavour	46	27.1	27.1	73.6
	Easy availability	23	13.5	13.5	87.1
	Price	11	6.5	6.5	93.6
	Brand ambassador	11	6.5	6.5	100.0
	Total	170	100.0	100.0	

Table 6 Soft Drink consumer's reasons for buying

Results

1. Reasons for buying soft drink by consumers were brand name 79(46.5%) followed by taste and flavor 46(27.1%) and easy availability 23(13.5%).
2. The other reasons for buying soft drink by consumers were price11 (6.5%) and brand ambassador 11(6.5%).

7. Soft drink consumer's package preference

Soft drink consumer's package preference is shown in the following table 7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Plastic bottle	44	25.9	25.9	25.9
	Glass bottle	35	20.6	20.6	46.5
	Metal can	69	40.6	40.6	87.1
	Tetra pack	22	12.9	12.9	100.0
	Total	170	100.0	100.0	

Table 7 Soft drink consumer's package preference

Results

a. 44(25.9%) prefer plastic bottle, 35(20.6%) prefer glass bottle.
b. 69(40.6%) soft drink consumers preferred metal can and 22(12.9%) preferred tetra pack packaging.

8. Soft drink consumer's consumption due to attractive advertisement

The following table 8 shows soft drink consumer's consumption due to attractive advertisement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Creativity slogan	20	11.8	11.8	11.8
	Brand ambassador	100	58.8	58.8	70.6
	Advertising message	34	20	20	90.6
	Frequency of advertisements	2	1.2	1.2	91.8
	Logical reasoning	14	8.2	8.2	100.0
	Total	170	100.0	100.0	

Table 8 Soft drink consumer's consumption due to attractive advertisement

Results

a. 20 (11.8%) were consuming soft drink due to attractive advertisement creativity slogan followed by 100(58.8%) due to endorsement of their favorite brand ambassador.
b. 34(20%) soft drink consumers consumed soft drink due to appealing advertising message.
c. Frequency of advertisement did not attract soft drink consumers as only 2(1.2%) consumers get attracted due to frequency of advertisement
d. 14(8.2%)) consumers consumed soft drink due to logical reasoning given in advertisement.

9. Soft drink time of consumption

Soft drink time of consumption is shown in table 9 below

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Morning	15	8.8	8.8	8.8
	Afternoon	45	26.5	26.5	35.3
	Evening	20	11.8	11.8	47.1
	Night	14	8.2	8.2	55.3
	No specific time	76	44.7	44.7	100.0
	Total	170	100.0	100.0	

Table 9 Soft drink time of consumption

Results

a. 15 (8.8%) consumers consumed soft drink in the morning followed by 45(26.5%) consumed in the afternoon and 20(11.8%) consumed in the evening.
b. 14(8.2%) consumers consumed soft drink at night time.
c. 76(44.7%) consumers consumed soft drink with no specific time.

Hypothesis Testing-

Hypothesis testing was done by Chi- Square test after verifying normality assumption.

Hypothesis 1

Null hypothesis

Ho: Gender of consumers and kind of soft drink preferred by them are independent.

Alternate hypothesis:

H1: Gender of consumers and kind of soft drink preferred by them are dependent

10 Kind of soft drink preferred by consumer gender wise

Kind of soft drink preferred by consumer gender wise is shown in the following table 10

					If yes for Non-Carbonated soft drink ,then which drink			

			Carbonated soft drink	Non-Carbonated soft drink	Milk products	Energy drinks	Fruit juice	Total
Gender	Male	Count	70	7	14	6	15	112
		Count expected	56.0	28.3	9.2	5.9	12.5	112.0
	Female	Count	15	36	0	3	4	58
		Count expected	29.0	14.7	4.8	3.1	6.5	58.0
Total		Count	85	43	14	9	19	170
		Count expected	85.0	43.0	14.0	9.0	19.0	170.0

Table10 Kind of soft drink preferred by consumer gender wise

Results Most of the male consumer's preferred carbonated drink while female consumers preferred non-carbonated soft drink.

Chi-Square test results are shown in table 11 below

	Value	Degree of Freedom	Asymptic Sig-(2-sided)
Pearson Chi-Square	66.02(a)	4	.000
Likelihood ratio	69.775	4	.000
Linear –by- Linear Association	.039	1	.844
N for Valid Cases	170		

Table 11 Chi-Square test results

The minimum expected count is 3.07.

We reject Null hypothesis as significance level was less than .05 and accept alternate hypothesis and conclude that gender and kind soft drink preferred by soft drink consumers are dependent.

Hypothesis 2

Null Hypothesis Ho: Consumer occupation and kind of soft drink preferred by them are independent.

Alternate Hypothesis H1: Consumer occupation and kind of soft drink preferred by them are dependent.

Hypothesis 2 details are shown in the following table 12

		Carbonated Soft drink	Non-carbonated Soft drink	*Milk products*	*Energy drink*	*Fruit juice*	Total
Profession	Count	12	2	2	3	4	23

	Count expected	11.5	5.8	1.9	1.2	2.6	23.0
Business	Count	9	5	3	2	3	22
	Count expected	11.0	5.6	1.8	1.2	2.5	22.0
Service	Count	9	2	7	2	3	23
	Count expected	11.5	5.8	1.9	1.2	2.6	23.0
Student	Count	55	22	2	2	9	90
	Count expected	45.0	22.8	7.4	4.8	10.1	90.0
Other	Count	0	12	0	0	0	12
	Count expected	6.0	3.0	1.0	.6	1.3	12.0
Total	Count	85	43	14	9	19	170
	Count expected	85.0	43.0	14.0	9.0	19.0	170.0

Table 12 Hypothesis 2 details

Chi-Square Test results for Hypothesis 2 is as given in the following table 13

	Value	**df**	**Asymp .Sig-(2-sided)**
Pearson Chi-Square	.599	16	.000
Likelihood ratio	.991	1	.000
Linear –by- Linear Association	4.897	1	.027
N for Valid Cases	170		

Table 13 Chi-Square Test results for Hypothesis 2

The minimum expected count is 3.07.

We reject Null hypothesis as significance level was less than .05 and accept alternate hypothesis and conclude that consumer occupation and kind of soft drink preferred by them are dependent

Hypothesis 3

Null Hypothesis H0: Consumer age group and kind of soft drink preferred by them are independent.

Alternate Hypothesis H1: Consumer age group and kind of soft drink preferred by them are dependent

The following table 14 gives data for hypothesis 3

		Carbonated Soft drink	**Non-carbonated Soft drink**	**Milk products**	**Energy drink**	**Fruit juice**	**Total**
Age 15-20	Count	39	22	2	6	9	78

	Count expected	39.0	19.7	6.4	4.1	8.7	78.0
Age 21-25	Count	37	7	3	3	7	57
	Count expected	28.5	14.4	4.7	3.0	6.4	57.0
Age 26- 30	Count	0	12	0	0	0	12
	Count expected	6.0	3.0	1.0	.6	1.3	12.0
Age 31-40	Count	9	0	2	0	0	11
	Count expected	5.5	2.8	.9	.6	1.2	11.0
Age above 41	Count	0	2	7	0	3	12
	Count expected	6.0	3.0	1.0	.6	1.3	12.0
Total	Count	85	43	14	9	19	170
	Count expected	85.0	43.0	14.0	9.0	19.0	170.0

Table 14 Data for hypothesis 3

Chi-Square Test was carried for testing hypothesis 3 and results are outlined in the following table 15

	Value	**Degree of freedom**	**Asymptic Sig-(2- sided)**
Pearson Chi-Square	100.386 [a]	16	.000
Likelihood ratio	88.573	16	.000
Linear –by- Linear Association	2.369	1	.124
N for Valid Cases	170		

Table 15 Hypothesis 3 Chi-Square Test results

The minimum expected value is. 58

We reject Null hypothesis as significance level was less than .05 and accept alternate hypothesis and conclude that consumer age group and kind of soft drink preferred by them are dependent.

Personal Interview of 50 retailers of soft drink

The researchers interviewed 50 retailers of soft drink to get their opinions' on the topic. The area covered were Shivaji Nagar, Deccan Gymkhana, Camp, Kothrud and Hadapsar. The retailers stated that the consumer behavior depends on culture, value and traditions. They also stated that celebrity endorsement and availability during summer season play major role in soft drink consumption. When they were asked about age group consuming carbonated soft drinks, they informed that young consumers in the age group of 15-25 years were the main consumers. Educated young working professional were preferring health and sports drinks. The most preferred brands of carbonated soft drinks are Sprite, Thumps Up, Pepsi and Coca-Cola. When we asked the dealers on impact of demonatisation, we were told that the business was down by about 55 percent and they further stated that during winter season the demand for soft drink consumption is less.

5. MANAGERIAL IMPLICATIONS

1. Soft drink companies should come out with new drinks to attract female young consumers, old / service consumers prefer fruit juices and milk products.
2. Students were major soft drink consumers covered. New strategies needed to be framed to attract other consumers.
3. Carbonated soft drink was preferred. Energy drink was least preferred soft drink by target market. Soft drink companies to note and come out with better energy drink.
4. The major reason for purchase of soft was thirst quenching. The soft drink manufacturers should come out with low cost soft drinks for consumers' at the bottom of the pyramid.
5. The soft drink consumer get attracted by seeing an advertisement of their favorite Brand Ambassador. They were least attracted by frequency of advertisements. This proved that consumers are fed up watching repetitive advertisements.. The soft drink marketers should think of shifting the communications through social media in order to be cost effective reach.
6. There was no specific time for consuming soft drink.an advertising campaign need to be designed to increase consumption of soft drink.
7. Visibility, availability, taste and flavours were key factors in consumer behavior of soft drink. The soft drink companies should ensure the availability by increasing new variants the distribution so that consumers will get soft drinks at arm's length.
8. Metal cans were most preferred packaging of soft drink consumers. The soft drink manufacturers should look into the aspect of packaging.
9. There is great amount of mind shift is done by new entrant like Patanjali .The existing players in this soft drinks market should not neglect such new entrants and come out with better strategies.

6. CONCLUSION

The soft drink companies must design new strategies based on consumer preferences. They wilI have to come out with new business plan in light of competition from new entrants like Patanjali who has been attacking directly by telling consumers about ill effects MNC products. Soft drink marketer should focus on health and nutrition.

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CUSTOMER COMPLAINT BEHAVIOR; AN EMPIRICAL RESEARCH

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ABSTRACT

Companies have recognized the value of customer complaints for improving its offerings and patronage relationships. Effective complaint handling increases enhanced customer satisfaction, positive behavior while diminishing negative word-of-mouth (Blodgett, Granbois, and Walters 1993; Gilly and Gelb 1982; TARP 1986).
Extant literature suggests that customer complaints have direct relationship with future purchase and is extremely critical. Therefore, customer complaints should be handled delicately to build a bond which result in higher level of customer satisfaction and long-term commitment.

The researchers analysed the concerns of customers, reasons, organizations responses, corrective action. Researchers provide discussion of results, managerial implications, suggestions for future.

KEYWORDS: Customer complaints, Services marketing, Consumer behaviour.

1. INTRODUCTION

In recent years competition has intensified with the opening of the economy in the 1990's. The Indian manufacturing and service has advanced in an organized and systematic manner. The NCAER (2004) suggests that the income levels of the middle class are growing rapidly.

The importance of customer loyalty is very important with the growing service sector and the sudden influx of major new foreign entrants. A shopping revolution has ushered in India where a large population between 20-34 age groups in the urban regions boosted demand by 11.1 percent in 2004-05. This has also brought about a huge international retail investment and more liberal FDI policies.

The smallest firms, labour costs represent the single largest expense other than 'cost of sales' (Teas, 1981). The industries are now characterised by long working hours, relatively inexperienced employees and low wages (Darden, Hampton & Howell, 1989; Donnelly & Etzel, 1977). These factors contribute to high rates of labour turnover which in turn increases personnel costs (Spivey, Munson & Lacander, 1979).

No organisation enjoys receiving complaints from their customers. Besides being necessary for maintaining compliance with industry regulations, complaint tracking is an essential tool for improving company's performance. It is critical that the system for receiving and evaluating complaints be effective. But appraising the effectiveness of the complaint-handling system while continuing to meet the various expectations of company stakeholders-customers, employees, and regulators-can be a challenge. The performance of a complaint system should be judged against stated objectives. These performance objectives can be formal or informal, but they should be well defined and documented.

Over the short term, complaint system objectives may seem not to be in sync with other of the company's quality metrics. For example, making improvements in the complaint-handling system may cause the volume of complaints to go up incidentally because the process by which complaints are evaluated has become more sensitive. That is a good thing. What is important is that product quality and performance continually improve over the long run.

Customer complaints have always been the matter of concern for most of the organizations. However, the organisation, which cares for customers complaints have enjoyed a better market share. In this competitive environment, the consumer complaints have to be dealt with immediately as it is a strong factor of influence in consumers' decision making process for future purchase as well as it builds customer loyalty (Engel, Blackwell, & Miniard, 1995).

Customers have to be serviced well. This is especially true when you remember that 80% of your sales come from 20% of your customers and clients. Customer retention and customer loyalty is not only a cost effective and profitable strategy, but in today's business world it's necessary.

First, firms can develop a customer retention strategy by managing their customers' loyal behavior. Firms using this strategy try to increase their existing customers' retention rate by securing customer loyalty (Reichheld, 1996). Especially, in an intensively competitive market, firms can gain a competitive advantage by securing customers' loyalty. The benefits of this are that loyal customers result in a firm gaining various benefits, such as the increase of purchasing frequency and quantity, cost reduction, and a favorable word-of-mouth publicity , a launch pad for new products and the customer not being price conscious and also recommend companies to give new products. (Zeithaml and Bitner, 1996).

Second, the other customer retention strategy is to manage their customers' disloyal behavior. Firms using this strategy try to maintain or heighten their customer retention rate, protect against the diffusion of negative word-of-mouth, and minimise disadvantages by effectively managing customers' disloyalty as shown by post purchase dissatisfaction behavior (Tax, Brown, and Chandrashekaran, 1998). Dissatisfied customers talk about negative experience with an average of nine other persons, and it is estimated that firms lose ten to fifteen percent of their annual sales volume because of dissatisfied customers (Technical Assistance Research Program, 1981). Therefore, it is important for firms to carefully investigate and manage their customers' disloyal behavior. Through effective management of dissatisfied customers' behavior, firms can positively change customers' disloyalty (Blodgett, Hill, and Tax, 1997).

2. SERVICE QUALITY

In services marketing, it is not enough for the service provider to offer a high quality service. The quality of the service encounter will be measured by the service deliverer, as well as the manner in which the service is delivered. It is important for a service provider to practice interactive marketing, in order to ensure that the sales representative is prepared to provide quality delivery of the service. As Gronroos (1995, p. 253) explains "all the interactions with the firm, with its contact personnel, information systems, and physical resources, have to support the quality perception of the customer." Therefore, it is important to make each and every service encounter a positive experience for the customer.

Current research supports the claim that service quality leads to customer satisfaction (Anderson et al 1990). Bonding can be seen as a mechanism that adds value to the relationship between the provider and the customer by addressing the needs that the customer.

Anderson (1990) talks about how added value is a shared creation between the buyer and the seller that serves to enhance the relationship so that they each can gain more benefit from the relationship. Anderson (1990) advises that value creation brings the two closer and that the outcome of this closeness is that the parties are less able to find a suitable replacement. Zeithaml and Berry (1996) agrees by suggesting that value-adding benefits provided by the vendor firm provide the basis for an immutable and on-going relationship. Anderson (1990) adds that value is created in many different ways, which can include an increase in bonding.

Thus, analysing customer complaints helps in understanding the dimensionality of service quality, which appears to be critical not only for measurement purposes but also for providing greater insights into customers' perceptions and shopping behavior.

The links between customer satisfaction, customer loyalty and an organisation's profits have been demonstrated by a number of researchers (Anderson *et al*., 1989). Customer satisfaction can, however, be undermined by service failures, which potentially occur at any time during the customer's relationship with a service organisation—from the first encounter to the most recent. A customer who experiences a service failure can undertake a number of alternative actions, one of which is to make a written complaint to the service provider. While some customers who complain to a supplier will remain loyal, others will switch all or part of their business elsewhere. Customer loyalty has been conceptualised in many ways, ranging from the likelihood of a customer's repeat purchase, to the proportion of the same products or services purchased from the one supplier (Dick & Basu, 1994). Most authors, however, define loyalty either implicitly or explicitly, as an intention to repurchase from the same supplier (Soderlund, 1998).

Complaints allow an organisation time to analyse and assess their nature and severity before implementing a service recovery. This study examines the influence of complaints on customer loyalty subsequent to service-related failures. The findings have practical relevance for managers in predicting loyalty from complaints and in assisting in the development of an effective service recovery strategy. This paper commences with a review of the relevant literature concerning customer complaint behaviour in evaluations of customer satisfaction in complaints.

3. LITERATURE REVIEW

The study of consumer complaining behaviour has increased over the years. Organisations have realised that the cost of attaining a new customer is more than retaining an old one. A fundamental, but unlikely, assumption in most of these studies is a consideration of complaints as homogeneous in terms of the object of the complaint, the emotions expressed and the nature of the relationship between customer and supplier.

Likelihood of success refers to the consumers' perception of the organization's willingness to offer an exchange, a refund without any fuss (Hirschman, 1970). Previous researchers have analyzed and conclude that consumers who have perceive a higher likelihood of success are more positive towards seeking redress in case of any problem (Smith, 1998). If the customer perceives the likelihood of success low, he/she will repatronage the product / service again and will engage in negative word-of-mouth behavior (Smith, 1998). This is the key premise of this study.

4. OBJECTIVES OF THE STUDY

The objective of the study was to have a close look on consumer complaints on services like, online gift registry, restaurants, retailers, travel, mobile service providers, banks, airlines, hospitals, railways, insurance etc. with the following main objectives in mind:

To identify the likelihood of success and its effect on the complainants' negative word of mouth behavior as well as on their repatronage intentions.

Hypothesis

H0: Likelihood of success will have a negative effect on complainants' negative word-of-mouth behavior.
H1: Likelihood of success will have a positive effect on complainants' negative word-of-mouth behavior
H2: Likelihood of success will have a positive effect on complainants' repatronage behavior.

5. RESEARCH DESIGN AND METHODOLOGY

Methodology

Primary research was done by the authors covering all the aspects/ factors of the complaints which customer faces. The number of respondents was 240 customers. In addition, the reliability and validity of these measures of the consumer satisfaction/ dissatisfaction are analysed.

Scale development

The respondents were asked to recall an incident when they complained about a product or service to the company.

There were two distinct phases of data collection and analysis. The objective of the first phase, the pilot study, was to design the framework of the research. This was achieved through a systematic pilot study involving attribute generation and subsequent data reduction processes. The questionnaire was pre-tested for readability and clarity with post graduate business students. Relevant instructions were given in the questionnaire for consistency and some aspects were deleted or reframed. In many of the questions a seven point Likert scale ranging from "strongly disagree" to "strongly agree" was used for measurement of these items.

The second phase entailed the data collection through the questionnaire survey using the framework crystallized by the above process. The data was collected from respondents on a random and convenience basis by the authors in India only. Only the respondents that complained over the last 12 months were interviewed.

A sample of 250 selected personally by the authors and questionnaires were filled immediately by the authors in front of the respondents in various places in India. The areas were chosen at the different corners of India to get a holistic view. The questionnaire was done during the months of November 2016 to Jan 2017. The questionnaire also included five demographic characteristics of the respondents: gender, age, education, profession, and annual monthly income. 240 complete and usable questionnaires were obtained. This was found to be adequate for the tools being used for analysis. Considering the different objectives of the study, various tools of analysis have been employed and the data collected through questionnaire are duly processed. Statistical Package for Social Science (SPSS) for windows has been used to perform the statistical analysis.

Descriptive Statistics

Respondent demographics

Out of 240 respondents, 48% were male and 52% were female. 25% earned under Rs 1,20,000 per annum, 22% between Rs.1,20,001 and Rs.2,50,000, and 28% earned between Rs.2,50,001 and Rs.3,50,000, and 21% earned between Rs.3,50,001 and Rs.5,00,000 and 5% earned Rs.5,00,001 and more. Approximately 8% worked on a clerical level, and 14% were managers in companies, 21% were businessmen, and 9% were in the top management cadre, and 18% were unemployed, and 38% were students in college. Approximately 25% were between the ages of 15-20, 22% were between the ages of 21-30, 28% were between the ages of 31-40, 21% were between the ages of 41-50, 5% were 51+.

Types of products complained about

The objective of the study was to have a close look on consumer complaints on services like, online gift registry, restaurants, retailers, travel, mobile service providers, banks, airlines, hospitals, railways, insurance etc. . It was found out that 21% complained regarding their mobile service, 19% regarding the airline service, 11% regarding the railway service, 9% each complained about the hospital service and insurance service, 8% complained about the restaurant service, 3% complained about the online gift registry, 7% complained about the retailers service etc.

Prior Purchase

Approximately, 53% of the respondents had purchased or used the service before prior to the purchase against 47% of the respondents were first time purchasers or users. Out of the 53% respondents who had purchased before from the same place or used the same service, 97% of them were generally satisfied in the past and only 2% were not.

Likelihood of success

Many companies have a clause of satisfaction guaranteed or money back offer. In order to capture the varying degrees the respondents' view of the likelihood of success of getting their complaint resolved by the company, a seven point Likert scale (where 1=strongly disagree, 7= strongly agree) was developed. (Mean: 5.004; s.d.: 1.29; alpha: 0.6834)

The authors in order to understand the repatronage intentions used the seven point Likert scale (where 1=strongly disagree, 7= strongly agree) was used. (Mean: 5.349; s.d.: 4.73; alpha: 0.654)

Resolved the problem

26% stores failed to resolve the problem, 28% at least partially resolved the problem to the complaints satisfaction, while 46% completely resolved the problem to the complaints satisfaction.

Negative word of mouth behavior

Approximately 63% mentioned that they had negatively word of mouth behavior up to 10 friends/ relatives, 13% told 11 to 20 persons, 7% told 20 to 30 persons while 17% told 30+ persons. (Mean= 4.0 ; and s.d.= 1.58)

Analysis and Result

The authors have hypothesized in **H0;** Likelihood of success will have a negative effect on complaints' negative word-of-mouth behavior. This is accepted as the negative word-of-mouth behavior effect is significantly negative (-.276). The complainants who had a bad experience with respect to the organization previously will have a negative word of mouth behavior towards it.

Hence **H1**; The likelihood of success will have a positive effect on complaints' negative word-of-mouth behavior is rejected.

The authors have hypothesized **H2:** Likelihood of success will have a positive effect on complainants' repatronage behavior. This is rejected as likelihood of success has a very slight negative effect (-.078) on the complainants repatronage intentions. Hence, the complainants' repatronage intentions are independent of the complainant's initial perception of the likelihood of success.

6. MANAGERIAL IMPLICATIONS

India is well known for personal bonding and relations with their customers. What is promising for managers is the effectiveness of proactive relationship building strategies undertaken by sellers. Company executives focused on building and maintaining strong customer relationships should note that the selection and training of sales persons who are directly dealing with the customers is critical; expertise, communication, and familiarity to customers are the most effective relationship-building strategies.

The present study paralleled complaint research in finding that customer satisfaction, perceptions of company concern and credibility, and likelihood of repurchase are enhanced when a firm responds to a complaint. The next most effective strategy is for company managers to make investments in generating relationship-based benefits for customers;

furthermore, relationship investment has the added benefit of influencing performance directly. However, managers must recognize that these proactive efforts will be wasted if they leave customer conflict unresolved as the negative influence of conflict on customer relationships is greater in magnitude than that of any other strategy. Thus, some firms could generate higher returns by reallocating their relationship investments to conflict resolution. A strategy of increasing customer dependence does not appear to be an effective way to build relationships, but it seems to influence seller performance directly. Neither relationship duration nor interaction frequency is a good driver of strong customer relationships.

Of all the outcomes the researchers analyzed, relationships have the greatest influence on cooperation and word of mouth. Managers may also want to leverage the potentially stronger impact on customer loyalty and seller performance in relationships that involve an individual. Therefore, we propose that there should be a bond between the salesperson and the customer which will result in a higher level of customer satisfaction and a long-term commitment on behalf of both parties to the relationship. Today’s buyers trust the brand name and the manufacturer as well as check out details before they visit the store.

The gathering momentum of the transition to impersonal, self service systems may also have encouraged consumers to become more fickle in their shopping behavior. Based on this work we offer tentative suggestions both for managers and market researchers.

7. LIMITATIONS OF THE STUDY

While this study helps us to understand the customer buying behaviour, it has its limitations. Data was gathered from customers through convenience sampling in India only which limits the generalization of the study. While respondents were represented from a wide cross-section across India, it still does not ensure generalisability though it does provide some evidence that the sample is representative of the population. It can be extended to other parts of the country to get a holistic view.

A second limitation of this study is that the authors interviewed complainants who had seeked redress in the last 12 months. Those who were dissatisfied and did not complain were not included in the study.

Next, there are many other aspects that affect the relationship between the customer and the organization. But they were not included in the present study.

8. SCOPE FOR FUTURE RESEARCH

In summary, our research is first of its kind in India and a first step for examining the importance of the customer complaints in the customer loyalty process. The authors are of the view that future research should relate to a system approach to understanding customer perceptions and attitudes.

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IMPACT OF ELECTRONIC EMPLOYEE MONITORING (EEM) ON ORGANIZATIONAL TRUST, JOB PERFORMANCE AND COMMITMENT

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ABSTRACT

In present day and age, organizations thrive on an ever-expanding usage of Internet facilities for professional activities. A vast majority of employees have access to various types of digital resources at work to assist in completion of their tasks in a more productive manner. Some of these resources – Electronic Mail (E-mail), Instant Messaging (IM), Wikis etc. help employees stay connected with one another even beyond the regular office hours and also have access to abundant knowledge at the click of a mouse. Along with many such benefits come potential problems such as productivity loss as well as exposure of confidential company assets, which could lead to severe problems being faced by the employer. For this reason, organizations are turning to Electronic Employee Monitoring (EEM) as means to curb such misuse of available resources by employees. Electronic monitoring methods include video surveillance, email monitoring and surveillance over online activities. This paper investigates employee perspective in this regard. In particular, the paper analyzes the direct impact of EEM on organizational trust, job performance and overall commitment of employees, as well as moderating role played by advance notice and/or relevant training provided to employees. A questionnaire based web-survey has been administered to professionals working across various sectors in India to test the formulated hypotheses. The results suggest that EEM has a negative impact on overall commitment of employees. Moderating constructs, in most cases, do not seem to have significant impact. In conclusion, implication of these findings has been assessed from various organizations' perspective.

KEYWORDS: Electronic Employee Monitoring, Organizational Trust, Job Performance, Job Commitment

1. INTRODUCTION

The Information Age has largely blurred the boundaries that used to exist between an employee's personal and professional lives. As per Internet Rights Forum (IRF) report in 2002, employees experience increased autonomy and flexibility both at work and at home with the increase in telecommuting and "mobile" working. 40 million employees working in various USA corporations correspond via e-mail, and that number is increasing by 20% per year (Dichter & Burkhardt 1996). A vast majority of employees have access to various technologies which assist them in completing their tasks in a more productive manner. These technologies largely aided with increasing usage of Internet, electronic mail (E-mail) and instant messaging tools have ensured that employees stay connected beyond office hours and can share knowledge at any desired time. Along with many benefits derived from these options, there also exist potential problems of misuse. This could also adversely impact productivity and even lead to leakage of confidential company information to a third party. Organizations are held legally liable for all communications originating from their networks. This puts the organizations at severe risk for lawsuits if employees misuse information systems and various other technologies provided to them. In order to guard against such issues, employers are increasingly opting for electronic employee monitoring (EEM) practices.

Electronic monitoring methods include video surveillance, email monitoring and surveillance over online activities. Video surveillance mainly involves usage of CCTV cameras to continuously keep a tab on workplace activities from a specific location like control room. Email monitoring software scans employee emails' and attachments by specific keyword which signals unacceptable messages. Internet monitoring over corporate networks is the predominant surveillance activity occurring in organizations (Weckart 2004). This mainly entails keeping a tab at the specific websites browsed from corporate networks in order to ensure that browsing done for personal interests and visits to questionable sites can be moderated.

Apart from electronic means of monitoring, some corporations adhere to usage of audio monitors, phone monitoring and maintenance of logs. It is observed that manual modes include activity monitoring on the workstation by the supervisors. Subsequently, employees are encouraged to adhere to company policies through these different forms of surveillance. The first few works on monitoring looked specifically at manual modes of monitoring and it's only since 1990's when the internet boom took place, we shifted our focus towards electronic means of monitoring. While some researchers have looked at specific types of monitoring and the specific reasons behind them, few have also looked at positive and negative consequences of monitoring. The negative consequences involve reduced organizational trust (Westin 1992), sub-optimal individual performance on complex tasks (Griffith 1993) and reduced job satisfaction (Papini 2007). It is important to note that lack of job satisfaction might lead to attrition which could have huge cost implications for knowledge intensive organizations. Researchers have argued on the grounds of functional (Dalton et al. 1981, Dalton & Todor 1979, 1982) and dysfunctional (Cascio, 1991; Mobley, 1982) consequences of turnover. Regardless of the reason, turnover clearly is consequential for organizations (Mobley 1982). The most common and oft-heard reason for employee attrition is placed on the non-conducive organization environment leading to reduced organizational trust and lack of job satisfaction (Porter & Steers 1973). Hence, it becomes imperative, from organizational viewpoint, to assess some of the major systems as well as policy driven factors behind these reasons in order to bring down attrition rate.

This paper investigates the implications of electronic employee monitoring (EEM) on employee's organizational trust, job performance and commitment. At the same time, moderating role of advance notice and relevant training provided to employees has been assessed. The next section presents a review of the relevant literature on EEM and the implications. In the following, research model has been discussed and hypotheses have been laid out. Hypotheses have been formulated by reviewing key literature. This is followed by a discussion on data collection and data analysis. A questionnaire based survey was administered over web to professionals working across various sectors in India to test the formulated hypotheses. The paper concludes with the implications of the findings from this study. Conclusions have been drawn based on regression as well as moderation analysis conducted on the dataset.

2. LITERATURE REVIEW

This section does a review of key literature on employee monitoring, organizational trust, performance and commitment. Research has looked at monitoring from various perspectives like employers, employees and social control. The recent literature on monitoring has raised various concerns ranging from economic, legal and ethical aspects by all areas of society. The scope of the research model presented is largely restricted to understanding employee perspective on EEM.

Employee Monitoring

The past literature has looked at the link between business technology and ethics for a long time. Martin & Freeman (2004), by drawing on the work of Freeman (1994, 2000) on the assumed separation between business and ethics, have proposed that a similar separation exists in the current analysis of technology and ethics. They viewed technology as developed by humans with the presence of value system. In future, these concepts can be further extrapolated by closely analyzing monitoring system as technology and various ethical arguments raised by the opponents.

Employers would like to believe that monitoring systems are well received by the employees. However, recent surveys suggest that acceptance rate of monitoring practices has been low among employees and a good proportion of employees are not even aware of monitoring practices. The recent electronic monitoring and surveillance survey (2007) from American Management Association and the ePolicy institute suggest that 16% employees across domains are not even aware about organization’s monitoring activities. Looking at the literature to form an opinion on monitoring acceptance, Zweig & Webster (2003) have assessed personality as a moderator of monitoring acceptance. The explored idea looked at whether personality moderated the relationship between workplace monitoring system characteristics, fairness, privacy and acceptance. Based on experimental study, the results indicated that emotional stability and extraversion altered the relationships between the paths in a model of monitoring acceptance. Specifically, people with lower extraversion and emotional stability were less likely to have positive attitudes about monitoring, even with privacy and fairness safeguards in place.

The recent literature on employee monitoring has looked at various perspectives. Wakefield (2004) has looked at different types of EEM techniques (Internet, E-mail, instant messaging) and the growing trend among employers to deploy these techniques at workplaces. Hartman (2008) have looked at the rights and wrong of workplace monitoring. Martin & Freeman (2001) have addressed numerous arguments that raise important managerial and moral considerations. The arguments range from employer’s perspective such as productivity, security, liability and paternalism to employee’s perspectives on privacy, creativity, social control etc. Apart from this, detailed exploratory studies have also been done to look at the specific view point of employer (Echols 2003, Levin et al. 2012) as well as employee (Stanton & Weiss 2000, Echols 2003, Lasprogata et al. 2004) on the issue of surveillance.

Rationale behind employee monitoring

Employer perspective

The main reasons stated in favour of EEM from the perspective of employers are (1) Liability–Avoidance purposes (2) Business purposes and (3) Investigatory purposes (Ciocchetti 2010) -

- Employers consider legal liabilities as one of the most important reason for monitoring (Ciocchetti 2010). Lawsuits against employers associated with e-mail include fraud, social harassments, racial harassments, securities fraud, trespass etc. (Echols 2003). Many courts around the world have upheld such charges, and have forced organizations to adopt very stringent monitoring policies.

- The second most important reason is the company security (Ciocchetti 2010). A lot of illegal activities over web these days are performed by injection of virus, worms or malicious software (Favole 2010). Viruses are some software programmes which reside on computers and corrupt operating systems or other files and application. Similarly worm enters into the network and track network activities and phishing sites are used to get important information like username, passwords etc. These harmful software usually come through e-mails and removable storage devices, hence are a big concern to the company's security (Davis 2002). Other threats related to company's security are exchange of files with outside agencies.

- The third concern is productivity; employers argue that personal use of internet and e-mail on company time adversely impacts desired efficiency at work (Echols 2003). According to a study, employees spend approximately ten hours per week, or one-fourth of a work week, online sending personal e-mails and visiting internet sites unrelated to work (Kesan 2002).

- As a final incentive, the law sometimes requires employers to monitor employees (Kesan 2002). "Right to protect assets" encourages some of the employers to monitor employees in order to protect valuable assets.

Employee perspective

The general argument is that people prefer privacy over monitoring (Echols 2003). Below are some of the general conceptions from employee's perspective:

- Employees do not feel comfortable while working if there is lack of privacy at work place (Kesan 2002). Excessive monitoring tends to hamper their organizational trust. This adversely impacts employees' morale and productivity and erodes mutual respect between employee and employer, leading to sub-optimal production/work from employees end in some cases (Echols 2003).

- Other side effects of monitoring is stress, depression and anxiety which comes due to monitoring of e-mails, network logs, attendance, desktop activities, close circuit cameras etc. especially if these are conducted unfairly (Malchiodi 2000). It is estimated that employee stress costs around fifty to seventy-five billion dollars annually in the form of increased absenteeism, turn over, poor management, lower productivity, higher health cost, and the avoidance of email altogether (Echols 2003).

Organizational Trust

Trust has always been a key factor explored at several level of analysis by various studies in the organizational behaviour research (Gambetta 1988, Barney & Hansen 1994, Lamsa & Pucetaite 2006). The prime reason lies in the fact that employee trust holds major significance in the workplace at organizations. Trust has been linked to organizational outcomes such as higher sales and profits, lower employee turnover (Davis, Schoorman, Mayer, & Tan, 2000), and increased levels of cooperative behaviour among employees (Gambetta, 1988). Keeping organization as the level of analysis, Weckart (2000) puts forward the cognitive notion of trust and argues that it would be difficult to have a well-functioning workplace without a high level of trust. Mayer et al. (1995) have argued and suggested along the same lines an integrative model of organizational trust. The model attempts to assess trust of one individual for another and subsequent risk taking in the relationship.

From employee monitoring perspective, Weckart (2000) explored the notion of trust and concluded that monitoring invariably leads to distrust among employees at organizations. Surveillance technology must be used carefully so that the precious asset – trust of employees – and their privacy cannot be easily deteriorated and jeopardized (JV Chen, Y Park 2005). Alder, Noel and Ambrose (2006) have looked at the impact of monitoring on pre- and post-implementation trust. The results showed that post-implementation trust is severely impacted if advance notice and proper justification for the implementation of monitoring practices is not provided to employees. It becomes imperative for future empirical studies to assess if the organization is informing the employees in this regard.

Recognizing the effect of prior notification and providing proper justification, there seems to exist a need for organizations to follow code of conduct in monitoring related matters. This code of conduct shall vary among organizations across countries, largely owing to significant cultural differences. McGrigor (2002) mentioned that organizations in the United Kingdom are required to inform their employees that they are being monitored. If the organizations are not following the specified code of conduct, monitoring could be construed as an invasion into privacy of employees. In Indian context, Indian IT Act is largely silent on this issue. Privacy argument has recently been taken forward with its share of proponents and opponents. Proponents vouch for deeper understanding of the privacy in the context of monitoring whereas opponents argue that employee monitoring decreases the amount of control employees have over their own information through unrestricted access (Martin & Freeman 2003).

It is evident that lot of concerns have been raised regarding privacy of employees in the presence of monitoring and at the same time it’s impact on organizational trust has been a matter of debate. Based on these evidences, there seems to be strong case to study the possible effects of monitoring on organizational trust.

Job Performance

For a well-functioning and profit-seeking organization, it is imperative to gain high level of performance from its employees. Borman and Motowidlo (1993) identified two types of employee behaviour that are necessary for organizational effectiveness: task performance and contextual performance. Task performance refers to behaviours that are directly involved in producing goods or service, or activities that provide indirect support for the organization's core technical processes (Borman and Motowidlo, 1997; Werner, 2000). On the other hand, contextual performance is defined as individual efforts that are not directly related to their main task functions. However, these behaviors are important because they shape the organizational, social, and psychological contexts serving as the critical catalyst for task activities and processes (Werner, 2000).

According to Martin and Freeman (2003), organizations argue for monitoring as a productivity tool primarily because computer has usurped gossiping in the coffee room or talking on the telephone as the leading waste of corporate time. In a study done in 2001, 60.7% of employees surveyed who were working at several US organizations said they visit Web sites or surf for personal use at work (WebSense, 2001). In this regard, organizations argue that monitoring employees is warranted to curb the potential for using computing resources for personal use.

On the contrary, surveillance has also been looked upon as having a negative impact on productivity. Studies have demonstrated a link between monitoring and psychological and physical health problems, increased boredom, high tension, extreme anxiety, depression, anger, sever fatigue, and musculoskeletal problems (Hartman, 1998). Further, it is believed that people under stress are sick more often and heal more slowly, leading to increased number of sick leaves and an overall decrease in job performance (Martin and Freeman 2003).
Given that there are contrasting views relating to the effect of monitoring on job performance, we can claim that there is inconclusive evidence on the effect of EEM. Martin and Freeman (2003) also argue that a more comprehensive inquiry is necessary to make further progress on understanding the complexity of employee monitoring.

Job Commitment

Most definitions of organizational commitment deal with the degree to which an employee identifies with the organization and is attached to the organization (Moorhead and Griffin 2001). According to Porter, Steers, Mowday, and Boulian (1974: 604), commitment is a "strong belief in and acceptance of the organization's goals and values, a willingness to exert considerable effort on behalf of the organization, and a definite desire to maintain organizational membership". Meyer and Allen (1991) present evidence to suggest that commitment comprises of three distinct components—affective, normative, and continuance. Affective commitment refers to an employee's emotional attachment to, identification with, and involvement in the organization, Normative commitment reflects a feeling of obligation to continue employment (Meyer & Allen, 1991: 67), Continuance commitment develops — as employees recognize that they have accumulated investments that would be lost if they were to leave the organization, or as they recognize that the availability of comparable alternatives is limited (Meyer et al., 1993: 539).

In the context of today's highly electronic workplaces, certain aspects of the job, like job satisfaction could be directly influenced by EEM (Papini 2007). This could have a significant impact on employee's overall commitment. Low organizational commitment of employees severely pulls down the morale of the organization as a whole. Much like job satisfaction, organizational commitment is influenced by the organizational environment (Papini 2007). Since the implementation of electronic employee monitoring has a direct impact on the environment, values and goals of the organization (Papini 2007), it is only natural to investigate how it relates to organizational commitment.

Up until recently, research has established that increase in usage of computing resources by employees has led to increase in EEM. However, there are not many empirical studies done to assess the impact of EEM and the findings are either contradictory or inconclusive. Moreover, limited studies that have been done are all in the context of western countries (US / European countries). Given the argument that Asian cultures are different (on Hofstede's cultural dimension of individualism/collectivism and the notion of privacy), it is important to study (a) the kind of monitoring practices prevalent and (b) their impact in Asian setting.

3. RESEARCH MODEL

This section presents conceptual model and key propositions framed from the literature review discussed in the earlier section. Framed propositions have been referred to as H1, H2, H3, H4, H5 and H6 specifically. Figure 1 depicts the conceptual model.

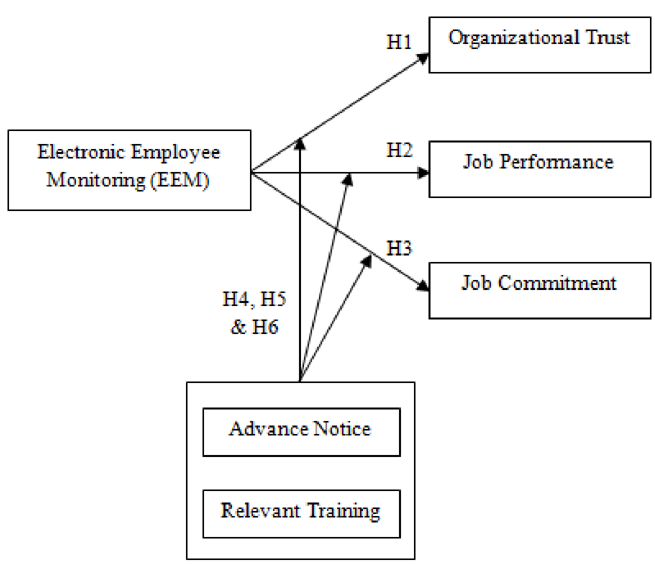

Figure 1: Conceptual Model

Weckart (2000) claimed that monitoring invariably leads to distrust among employees at organization. Chen and Park (2005) mentioned that surveillance technology must be used carefully so that employee's trust and privacy cannot be easily deteriorated and jeopardized. It seems reasonable to assume that EEM practices would be seen by employees as an invasion to their privacy. This would hamper the level of organizational trust.

***H1**: Electronic employee monitoring (EEM) has a negative impact on employee's organizational trust*

Literature has contradictory views from employer and employee's perspective on the impact of EEM on job performance. On one hand, employers have argued for monitoring as a productivity tool (Martin and Freeman, 2003) whereas on the other hand, employees have looked upon monitoring as having negative impact on productivity (Hartman, 1998). It is believed that if employees do not support management on EEM practices, it eventually leads to dissatisfaction over their job. This would have a direct negative implication on job performance. Even in cases when employees are supportive of EEM practices, certain restrictions over web and e-mail usage invariably hampers the overall performance.

***H2**: Electronic employee monitoring (EEM) has a negative impact on employee's job performance*

Papini (2007) mentioned that job satisfaction could be directly influenced by EEM. If employees are not supportive of the EEM practices within their organization, they would have a lower level of attachment to and identification with the organization (Meyer and Allen, 1991). Even otherwise, it is believed that if the employees are supportive of EEM practices, they would be cautious of their actions at workplace, which would indirectly impact job commitment.

***H3**: Electronic employee monitoring (EEM) has a negative impact on employee's job commitment*

Silent or covert monitoring, when supervisors monitor employees without informing them, is widespread and may be the most controversial aspect of EEM (Alder et al. 2006). It is believed that companies must give proper notice in advance of any monitoring (National Workrights Institute 2004). Secret monitoring clearly acts as an antithesis to the open communication critical to establishing and maintaining trust. Critics suggest that open communication with employees about monitoring forestalls litigation and improves employee relations (Casarez 1992).

On a different note, employees across the globe have supported the idea of relevant training related to acceptable web and e-mail usage at their workplaces. This helps employees become fully aware regarding internet related policies of their companies. It is believed that relevant training can also play a significant role in impacting the relationship between EEM and organizational trust, performance and commitment.

This paper probes the moderating role of advance notice and relevant training on the impact of EEM on organizational trust, job performance, and job commitment (H4, H5 & H6).

***H4**: Advance Notice and/or Relevant Training related to appropriate web and e-mail use provided to employees will moderate the relationship between EEM and organizational trust*

***H5**: Advance Notice and/or Relevant Training related to appropriate web and e-mail use provided to employees will moderate the relationship between EEM and job performance*

***H6**: Advance Notice and/or Relevant Training related to appropriate web and e-mail use provided to employees will moderate the relationship between EEM and job commitment*

4. RESEARCH STUDY

Research Context

The study has been done in Indian context. India is one of the few countries to have an Information Technology (IT) Act. This becomes critical owing to the fact that number of issues pertaining to usage of IT in organizations and society has been significant, in recent years. Looking at the legal aspect, both the Indian constitution and Indian IT Act provide Indian citizens the "Right to Privacy" but are non-specific on the right of a company to monitor for legitimate business purposes. Moreover, in the absence of clarity on right of a company to monitor for legitimate business purposes, it is left to the organizations to frame the policies. There could be huge variations in the way organizations interpret the status quo and subsequently frame the policies. Indian IT Act (2000) implicitly states that organizations can collect certain necessary private information from employees but it is their responsibility to protect it from third party and should not disclose such information without the consent of the individual (Section 72, Indian IT Act 2000). Indian courts do not consider workplace monitoring as an invasion to one's right to privacy as long as a clear reasonable business purpose can be demonstrated (World IP Review 2010). However, there is no one single definition of clear reasonable business purpose as followed by organizations in India collectively. Subsequently, it becomes imperative to analyze employees' perception to the impact of monitoring in workplace.

Data Collection

This study has looked at the impact of EEM on employee's organizational trust, job performance and job commitment. Survey instrument, used for the purpose of this study, was built largely from the literature. Specifically, monitoring related scales were adopted from Papini (2007) and American Management Association's (AMA) survey instrument (2005), organizational trust related scales were adopted from Gabarro and Athos (1976), job performance scales were adopted from Wiedower (2001) and job commitment scales used were picked from well established source by Meyer, Allen and Smith (1993). Responses were sought largely on a five-point Likert scale with a response of 1 for 'Strongly Agree' and 5 for 'Strongly Disagree'. Likert-type scales were used in all of the previous surveys on electronic monitoring (Oz et al. 1999).

Researcher, in this case, also conducted preliminary semi-structured open ended face-to-face interviews with individuals working in large IT companies, both of Indian origin and MNC's. This was done in order to validate some of the key findings of literature in Indian culture. The professionals interviewed in the preliminary stage considered the following factors to be of great importance in their job – freedom in work, trust from employer, commitment, data security and efficiency in work. This helped in refining the survey instrument by keeping those specific questions that probed the related constructs. For instance, one construct was changed from '*I feel web surveillance is needed to assist organizations in employee's performance appraisals*' to '*I feel web surveillance is needed to prevent any sort of cyber compromise*'. Moreover, some of the constructs that probed pre- and post- EEM implementation trust were removed due to the fact that individuals could not distinguish between their levels of organizational trust at varied stages.

Survey was administered over web. Participants were reached out by private e-mails and social networking sites. Participants were asked to consider each statement in the survey instrument and indicate the degree to which they agreed or disagreed with it. The sampling method used to determine the sample to administer our questionnaire was based on simple random sampling. Data has been collected from individuals working in different organizations with varied amount of experience and with high variance in terms of time they have spent in their current organizations. Overall, survey responses were received from 112 professionals working in 20 different organizations. Of the 112 responses obtained, 38 were not deemed usable because these responses did not cover specific mandatory information. In addition, two of the cases were outliers as response to every construct was similar and therefore deleted. This reduced the usable number of responses to 72. Non-response bias was tested by dividing the responses into early and late respondents and t-testing their mean responses to 10 randomly selected survey questions (Armstrong & Overton, 1977).

The survey respondents constituted 35% Female and 65% Male. Majority of them (~43%) were aged between 21-25 years. In terms of job profile, survey respondents' cuts across various industry sectors – largely dominated by IT Products (39%) and closely followed by IT Services (37.5%). Given that most of the responses were from IT industry (~78%), where workforce is quite younger and 21-25 is the average age of most employees, age representation of the respondents seems in congruence with IT domain. Majority of the survey respondents were involved in engineering/technology role (46%). A total of 21% of the respondents were involved in supervisor and managerial roles, constituted by Managers/Admin (11%) and HR (8%). Responses from people with different kind of roles like data analyst, product consultant and researchers were also collected as part of this study.

Data Analysis

This section presents the findings from analysis of survey responses. Regression techniques have been used to figure out the dependencies of independent variable (EEM) on dependent variables (trust/performance/commitment) and to analyze the role played by moderating variables (advance notice/relevant training). Following this, inferences have been drawn based on regression coefficients and statistical significance of the corresponding variables.

Cronbach's Alpha: Reliability of scales

To answer the question of reliability of scales, one of the most popular reliability statistics in use today is Cronbach's alpha (Cronbach, 1951). Cronbach's alpha determines the internal consistency or average correlation of items in a survey instrument to gauge its reliability. It is an index of reliability associated with the variation accounted for by the true score of the "underlying construct". Construct is the hypothetical variable that is being measured (Hatcher, 1994). As a rule of thumb, before using an instrument, cronbach's alpha value greater than 0.60 is considered satisfactory (Nunnally 1970) whereas value greater than or equal to 0.70 is desirable (Bland & Altman 1997).
In this study's questionnaire instrument, all the constructs, apart from monitoring and commitment related, met the desirable criteria. The Cronbach's alpha value for monitoring is 0.63 largely due to the fact that sample space was restricted to 72 responses and 5 data points (questions) were

related to each variable. Similarly, the cronbach's alpha for overall commitment is 0.64 largely considering that various types of commitment (affective, normative and continuance) were generalized and probed by clubbing into 4 data points (questions) based on highest factor loadings among these constructs. Since all the other values (organizational trust – 0.70, job performance – 0.79) are greater than or equal to desirable value, we can be assured of the reliability of the instrument.

Regression Tests

The direct effects of EEM on organizational trust, job performance and commitment are analyzed using OLS regression equations, as follows:

$$Org.trust = \beta_0 + \beta_1 mon + e_1$$
$$Job.perf = \beta_0 + \beta_2 mon + e_2$$
$$Job.commit = \beta_0 + \beta_3 mon + e_3$$

The above equations face the prospect of omitted variable bias. This would lead to biased and inconsistent estimators. However, as we are primarily concerned with testing the directionality of the relationship between the dependent and independent construct, we would proceed with OLS regression without worrying much about underestimating the effect.
Based on OLS regression results,

$$Org.trust = 1.88 - 0.07\, mon$$
$$(0.452)$$
$$Job.perf = 1.95 - 0.03\, mon$$
$$(0.284)$$
$$Job.commit = 1.64 - 0.34\, mon$$
$$(2.96)$$

The decision rule followed is to reject null hypothesis (no impact) for t-statistic greater than critical value of 1.96 (95% confidence interval for two sided test). It is clear from the t-values (indicated in the parenthesis) that the impact of EEM is statistically significant only on job commitment. The co-efficient, in this case, indicates that unit level increase in EEM lowers job commitment by 0.34.

Moderation Tests

This sub-section demonstrates the tests run for moderation analysis to analyze the role of advance notice and relevant training on the direct relationships.

$$Org.trust = \beta_0 + \beta_1 mon + \beta_2\, advnot + \beta_3 mon * advnot + e_1$$
$$Org.trust = \beta_0 + \beta_1 mon + \beta_2\, training + \beta_3 mon * training + e_2$$

The above set of equation tests for moderation along the path of EEM and organizational trust. Note that *advnot* and *training* have been introduced as dummy variables in the equation. Along similar lines, equations have been written for paths along EEM and job performance as well as along job commitment.

$$Job.perf = \beta_0 + \beta_1 mon + \beta_2\, advnot + \beta_3 mon * advnot + e_3$$

$$Job.perf = \beta_0 + \beta_1 mon + \beta_2\, training + \beta_3 mon * training + e_4$$

$$Job.commit = \beta_0 + \beta_1 mon + \beta_2\, advnot + \beta_3 mon * advnot + e_5$$
$$Job.commit = \beta_0 + \beta_1 mon + \beta_2\, training + \beta_3 mon * training + e_6$$

Based on moderation test results,

$$Org.trust = 2.12 - \underset{(0.786)}{0.08\, mon} - \underset{(0.539)}{0.06\, advnot} - \underset{(1.135)}{0.12\, mon * advnot}$$
$$Org.trust = 2.06 - \underset{(0.256)}{0.02\, mon} + \underset{(1.195)}{0.10\, training} + \underset{\mathbf{(2.152)}}{0.16\, mon * training}$$

$$Job.perf = 2.08 - \underset{(1.602)}{0.10\, mon} + \underset{(0.383)}{0.03\, advnot} + \underset{(0.450)}{0.03\, mon * advnot}$$
$$Job.perf = 2.04 - \underset{(0.966)}{0.06\, mon} + \underset{(0.915)}{0.06\, training} - \underset{(1.024)}{0.05\, mon * training}$$

$$Job.commit = 2.51 - \underset{(1.347)}{0.10\, mon} - \underset{(0.977)}{0.08\, advnot} - \underset{(1.535)}{0.12\, mon * advnot}$$
$$Job.commit = 2.51 - \underset{(1.797)}{0.12\, mon} + \underset{(0.650)}{0.05\, training} - \underset{(1.565)}{0.09\, mon * training}$$

The present t-values in parenthesis suggest that apart from moderating role played by relevant training on the relationship between EEM and organizational trust, none of the other moderating variables are statistically significant at 5% confidence interval for two-sided test. The differential between those who are being monitored but provided relevant training vis-à-vis those not provided relevant training is 0.26. Interaction between monitoring and relevant training is clearly evident from the interaction plot (Figure 2) presented below.

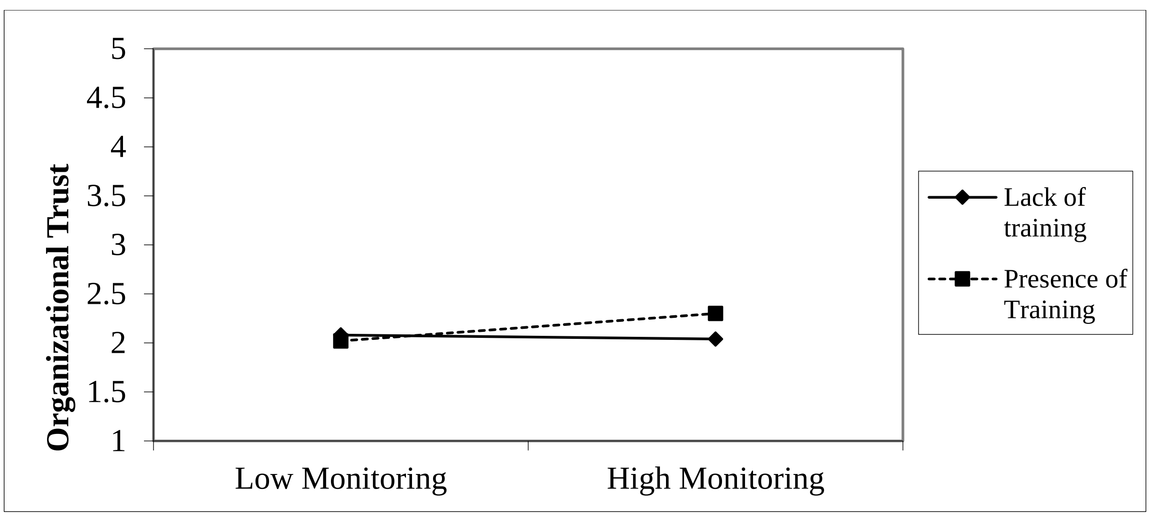

Figure 2: Interaction Plot for Monitoring—Training—Trust Case

5. DISCUSSION

This section discusses inferences drawn for direct effects of EEM on organizational trust, job performance and overall commitment of employees based on results from the analysis. Regression analysis reveals that EEM doesn't have direct impact on employee's organizational trust and job performance, but negative impact on employee's overall commitment. In the following, inferences have been put forward keeping each individual hypothesis into perspective.
H1 (*Not supported*): It is inferred that organizational trust is built around various parameters like goals, vision and values of organization. These parameters are not impacted by EEM and hence it does not directly impact organizational trust. Moreover, responses to the section on *Trust and Monitoring* (Section B) in the survey instrument seem to substantiate the conclusion that EEM doesn't impact organizational trust. Most of the responses suggest very little negative correlation between monitoring and organizational trust. For instance, majority of respondents agreed that CCTV surveillance is appropriate in order to prevent thefts and any acts of infringement, web surveillance is needed to prevent any sort of cyber compromise (worms, hacking private information etc.) and e-mail monitoring is needed to prevent leakage of company confidential information. This suggests that majority of respondents 'trust' their respective organizations on EEM related matters.

H2 (*Not supported*): It is inferred that job performance is related to inherent traits like motivation, attitude towards work in general of employees. These inherent individual traits are not impacted by EEM, and hence it does not impact job performance.

H3 (*Supported*): It is inferred that EEM makes employees cautious of their actions at workplace which leads to a lower sense of attachment and identification with the organization. Overall, commitment towards job is negatively impacted by EEM practices. This could possibly lead to higher rate of attrition at workplaces.

Employee Perception

Some of the constructs in the survey instrument were intended to gauge employee perception on various aspects of monitoring. One of the construct probed the level of workplace monitoring in general on a scale of 0-5. The average value of 2.36 from the received responses suggests that employees across sectors in India believe that monitoring is prevalent and awareness regarding the same is strong. Subsequently, only 9 of the respondents claim to make use of precautionary measures to avoid detection.

Table 2 below highlights constructs in the survey instrument with Yes/No option, presents the exact number of received responses, and the inferences drawn based on responses to each of these options:

Table 2: Collated Responses on specific constructs

Construct	Number of 'Yes'	Number of 'No'	Number of 'Don't Know'	Inference

Does your organization have a written electronic employee monitoring (EEM) policy?	14	19	19	Majority of responses are **not in the affirmative** suggesting that EEM policies are yet to “catch-up” with general policies like HR policies
Does your organization train employees on its internet and e-mail policies?	35	15	3	Majority of responses in the **affirmative** suggests that organizations across sectors provide training on basic IT skills
Does your organization restrict downloads/uploads of non work-related software and materials?	31	18	3	Majority of responses in the **affirmative** suggest that organizations believe in restrictive usage of Internet

Apart from this, survey instrument also probed on issues like specific departments responsible for internet and e-mail monitoring, enforcement methods used by organizations and type of e-mail monitoring. Evenly distributed responses to these constructs among various options suggest that there is not much clarity on these issues in most of the cases and it is not possible to generalize based on received responses.

6. CONCLUSION AND FUTURE WORK

In conclusion, this study clearly highlights that EEM has a negative impact on overall commitment of employees. The reduced commitment among employees may eventually lead to increased attrition at organizations. The implications of these findings need to be assessed from various organization perspectives.

If we were to look from Business Process Outsourcing (BPO)’s perspective, employers are more concerned with productivity of employees as opposed to their duration of stay at organization. In such cases, adopting EEM shouldn’t hurt the employer cause. However, if we were to look from knowledge intensive organization (R&D Labs, IT Products etc.) perspective, high level of commitment is required from employees so that organizational citizenship behaviour (OCB) is greatly enhanced and the impetus on knowledge sharing is maintained. In such a scenario, adopting EEM will hurt the employer’s cause. From a macro world-view perspective, it becomes essential for organizations to indulge in cost based analysis for employee turnover due to recent economic slowdown. A subsequent decision on EEM can be taken weighing down applicable opportunity costs.

Lastly, in order to take the literature forward, researcher would like to urge the community to investigate the impact of EEM on commitment even further. As a future work, the effect of EEM on specific types of commitment viz. Affective, Normative and Continuance (three component model of commitment as proposed by Meyer and Allen, 1991) can be probed.

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DECISION TO PURCHASE (PQ) ONLINE IS INFLUENCED BY INTENTION (IQ) OF MUMBAI BASED ONLINE SHOPPERS

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ABSTRACT

Studies which are being carried out to gain an imminent into the flourishing e- markets are not too many and still trying to seize with a clear consent on what determines online purchase behavior. Of course, the field itself is becoming complex as many variables are getting added as time passes by. A detailed study depicting online shoppers IQ-Intention Quotient & PQ-Purchase Quotient. Demographic variables and their association/relationship with Mumbai based online shoppers Purchase Quotient has been done in the earlier paper so that an understanding on the underlying factors develops as a premise for further studies on Intention Quotient. Purchase Quotient is a parameter which is compiled by combining a shoppers frequency of purchase & value of purchase.Offered construct has depicted four categories of online shoppers **,** ie. Loyal E-Shoppers , Moderate E- Shoppers , Frequent E- Shoppers & Strangers.
Where as objectives of the study are to study or offer matrix for intention quotient (IQ) of Mumbai based online shoppers. To examine the effect of IQ (Intention Quotient) on PQ (Purchase Quotient) of Mumbai based online shoppers.

So through offered study we look for an association between Intention Quotient & Purchase Quotient by considering purchase to be dependent on intention.
If a person's intention is strong it should manifest in his purchase behavior.
Intention quotient has been derived from combining Q.No.. 5 and Q.No. 6
Q-No. 5 – Do you **use the internet to search about products**, to get more information about them, or for products that you are not aware of ? YES or NO.
Q-No- 6 – Does **the information available on the internet influence you to purchase product** online YES or NO.
Offered construct has depicted four categories of online shoppers Intention Quotient**.**Strong Intention (SI) , Weak Intention (WI) , Intention With Poor Internet Search Experience (IWPIE) , No Intention (NI).
Previous studies are a pointer to some extent, nevertheless, as the markets are still evolving there seems to be a need for such studies before a settled picture gathers shape.

As data is collected for Mumbai alone, rural purchase behavior has not been studied. A focused strategy of developing e- markets can be designed by interested players for the dynamic future. It should help in online marketers to convert their negative bottom lines into positive ones.

KEYWORDS: Online purchase, Actual E-Shoppers(Purchase Quotient), Intention Quotient .

1. INTRODUCTION

BY KIT SMITH ON DECEMBER 7TH 2016

By the time I've written my 2054 e-commerce trends post, people will have forgotten that you ever had to visit shops and hand over physical money. Personally, I almost have.I was recently debating widening my letterbox so it can take a large pizza from Dominos, meaning I don't have to converse with the delivery guy. In the end, I decided that with current e-commerce trends moving at lightening pace, they will soon replace the delivery guy with a drone and I won't have to worry, so I've given up on ideas of home improvement for now.Ecommerce is constantly updating with improved discovery, technology, logistics, and cool things to buy.

Compared to the study of intention, the studies of consumer online purchase are quite fragmented and widely dispersed in the five main categories. For examples, demographics (e.g. Bellman et al 1999, Bhatnagar et al 2000, Li et al 1999, Phau and Poon 2000, Ramaswami et al 2000) have been widely considered in the study of online consumer behavior. Researchers primarily investigated factors such as age, gender, income, education, and the like in determining consumer online purchase. In terms of medium characteristics, a number of web specific factors including **navigation** (e.g. Chau et al 2000, Liang and Lai 2002), **interface** (e.g. Schoenbachler and Gordon 2002), **security** (e.g. Goldsmith 2000, Kim and Lim 2001), **accessibility** (e.g. Chen and Sukpanich 1998, Lee 2002), **social presence** (e.g. Kumar and Benbasat 2001) and **online shopping aid** (Vijayasarathy 2001) have been widely investigated in these prior studies. In terms of merchant and intermediary characteristics, factors like **privacy and security protection** (e.g. Kim and Lim 2001, Lee 2002) and **brand/reputation** (e.g. Ruyter et al 2001, Ward and Lee 2000) are frequently studied in consumer **online purchase adoption**.

Research Gap

As mentioned above earlier researcheson E-consumer behavioral theory "TPA, DOI, SCT, TRA, TAM" suggested a prominent role of e-shoppers "Intention to buy online" but there is no clear confab on "Actual E-Shoppers Intention Quotient". So current research is trying to fill the gap by proposing the IQ Matrix &demarcation with respect to various online shoppers categories. ie. Loyal E-shoppers, Moderate E-Shoppers, Frequent E-Shoppers & Strangers.

2. LITERATURE REVIEW

Actual E-Shopping Behavior

Actual E-Shopping Behavior measures include three dimensions. The adoption of e-shopping, amount spent online and the frequency of using e-shopping.Li and Zhang (2002) [33] Cheung et.al(2003) were used for measuring impact of six independent [34].

Purchase Quotient

PQ-Purchase Quotient has derived from Actual E-Shopping Behavior.
"Purchase Quotient=Purchase Value * Purchase Frequency."
"Purchase Quotient is a parameter which is compiled by combining a shopper's frequency of purchase & value of purchase."
-Purchase Value: Low Value (LV)= Value of Purchase <Rs. 6000
High Value (HV) =Value of Purchase>Rs. 6000

- PurchaseFrequency:Low Frequency (LF) = Frequency of Purchase <8
High Frequency (HF) =Frequency of Purchase>8

Value of Purchase		L	H
	H	**LFHV** (Moderate E-Shoppers)	**HFHV** (Loyal E-Shoppers)
	L	**LFLV** (Strangers)	**HFLV** (Frequent E-Shoppers)

(Frequency of Purchase)
[Source: International Journal for Research in Engineering Application & Management (IJREAM), ISSN: 2494-9150, Vol-02, Issue 03, June 2016.]

Offered construct has depicted four categories of online shoppers **ie**
Loyal E-Shoppers - shows high purchase frequency that means more than "8" times purchase in a month & high value of purchase ie. Spending on an average more than "6000 Rs."
Moderate E- Shoppers- shows low purchase frequency ie less than " 8" times purchase in a month but having high value of purchase ie spend more than " 6000 Rs" on an average.
Frequent E- Shoppers- shows average purchase frequency ie more than " 8" times but shows low purchase value ie. less than even "6000 Rs."
Strangers- very unpredictable consumer category, which is showing low purchase frequency as well as low purchase values .

Intention to Shop Online

Intention to shop online refers to the likelihood that a consumer actually buys online (Chen et al., 2002).Although this variable is frequently treated as a dependent variable, several researchers found it to be an important determinant of online shopping behavior (e.g., Chen et al., 2002; George, 2002; Goldsmith and Goldsmith 2002; Limayem et al., 2000).

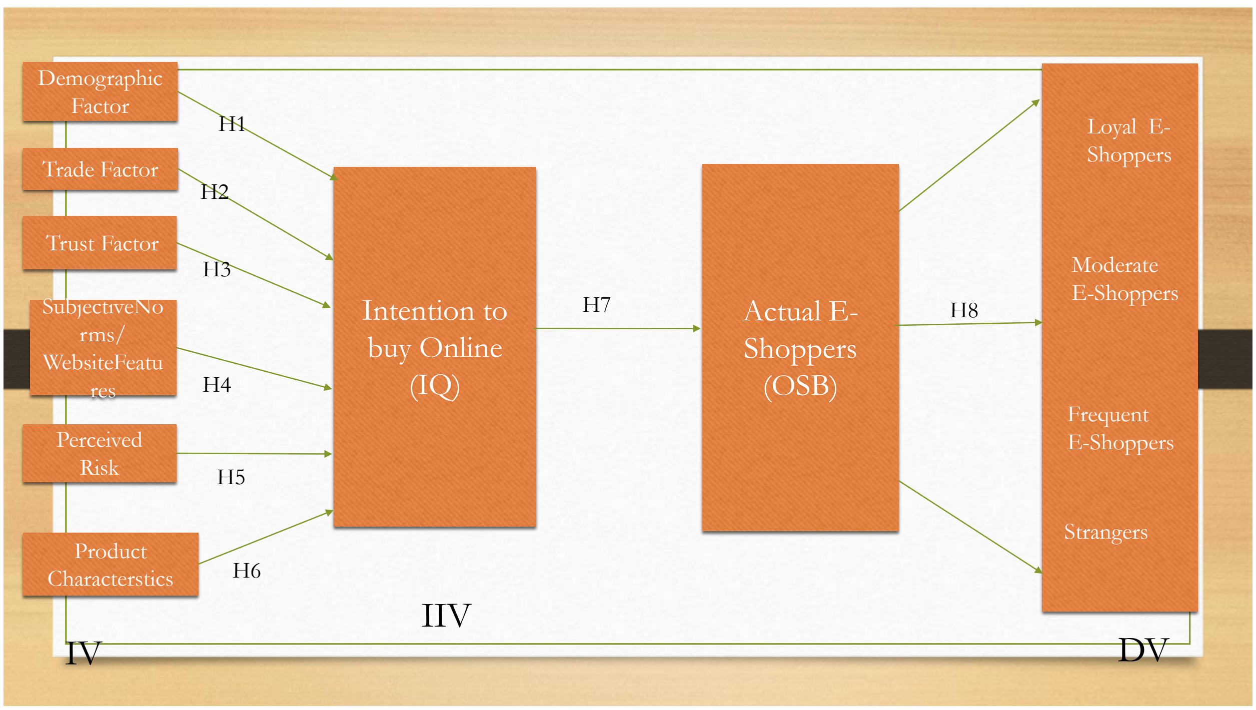
Consumer Online Purchase intention

In consumer online purchase intention, researchers (e.g. Chau et al 2000, Goldsmith and Bridges 2000, Koufaris et al 2001, Limayem et al 2000, Raijas and Tuunainen 2001, Vellido et al 2000) extensively employed attitudinal theoretical models in the study of consumer online purchase and thoroughly investigated the antecedent factors like intention, attitude, subjective norm, perceived behavior control, ease of use, and perceived usefulness. Moreover, we observed a significant number of empirical studies that proposed and tested factors affecting consumer online purchase.

Objective

-To studyor offer matrix for intention quotient (IQ) of Mumbai based online shoppers.
-To examine the effect of IQ (Intention Quotient) on PQ (Purchase Quotient) of Mumbai based online shoppers.

Frame work



Hypothesis

H1 = IQ (intention quotient) of Mumbai based online shoppers is having Significant effect on PQ (purchase quotient) of Mumbai based online Shoppers.

OR

H1= Decision to purchase (PQ) on internet is influenced by intention (IQ) to purchase online.

OR

H1 = There is a significant influence of intention (IQ) to purchase on Actual online purchase (PQ)

3. RESEARCH METHODOLOGY

Research Design: The research design is a sample survey of Buyers

Scope of the study:

The study involves different types of online shoppers based on frequency in business to consumer (B2C) market segment. The respondents involved in this research study were selected from Mumbai with the condition of having experience in online shopping.

Variables in this study are as follows:

IV-Intention Quotient
DV- Purchase Quotient

Population and sample size

The population of this study includes online shoppers in Mumbai who have purchased different products from online shopping sites. The sample method adopted was **Convenience Quota Sampling.** It involves sample units of 2039 experienced online shoppers in Mumbai from (ie. Students, Servicemen, Businessmen, Professionals & Corporate Executives).

Data collection

The current study understands the effect of Demographic Variables on Mumbai Based online shoppers. Primary data was collected with a self administered questionnaire from online shoppers in Mumbai. Secondary data was collected from articles in e-journals related to online shopping.

Survey instrument

A structured questionnaire was developed with five point rating scale with ranging from strongly agree to strongly disagree on demographic variables such as website Age, Gender, Income, Education, Occupation, customer service, Trust, security & reliability towards online shopping. It was developed with discussion of experts ,online shoppers and literature review.

Statistical tools

- Data analysis was done using statistical package for social science (SPSS) version 20 and
- data gathered through **structured questionnaire** in order to achieve study's objectives
- **Chi -Square Test**is used to find out association/relationship between Independent &Variables (ie. Age, Gender, Income, Occupation, Education & Marital status) of online shoppers with Dependent Variable (Purchase Quotient). It is also used when both IV & DV are categorical in nature.
- **Eta- Test**is used to find out the strengthof association/relationship between IV & DV, whether it is positively strong , positively weak , negatively strong or negatively weak.

- The Eta value from **+1 to 0.6**, which signifies a very strong relationship in a 2 by 2 table. with categorical data and larger tables a value near to 1 is not possible, any value near 0.6 denotes a very strong relationship.If observed value is near “zero” then will say strength of association between IV & DV is weak, if observed value is near"0.6” then will say association is very strong.
- **Bonferroni method**
  For a further insight into the differences between the column proportion in a Chi-Square test we use the bonferroni method, it is similar to the Post Hock test in a one waANOVA. The subscripts in the cells, when we move across the row tell us about the similarities or otherwise of the various groups of the IV-independent variables.

Characteristics of the Respondents

Understanding the back-ground of the respondents, it is important for interpretation of the finding meaningfully. For the proposed study total count of samples are 2039, ie. from Mumbai region.

Analysis of Hypothesis

H:Decision to purchase (PQ) on internet is influenced by intention (IQ) to purchase online.
OR
H:There is significant influence of intention (IQ) to purchase on Actual online purchase.(PQ)
Constructs offered in the present study.

Intention Quotient:

“ Intention Quotient (IQ) of online shoppers is a combination of two elements one is to what extend – online shoppers make use of internet to search for products & to what extend information available about products influence online shoppers PQ (Purchase Quotient).”
We look for an association between Intention Quotient& Purchase Quotient by considering purchase to be dependent onintention.
If a person’s intention is strong it should manifest in his purchase behavior."
Intention quotient has been derived from combining Q. No. 5 and Q.No. 6
Q-No. 5 – Do you **use the internet to search about products**, to get more information about them, or for products that you are not aware of? YES or NO.
Q-No- 6 – Does **the information available on the internet influence you to purchase product** online YES or NO.

The quadrant below combines the above two questions to result in an Intention Quotient variable with four categories.

Intention Quotient Matrix

		Q.no 5 Do You use the internet to search for products information.		
		Yes	No	
Q. No 6 Does the available information influence you to purchase	Yes	1. Strong Intention **(SI)**	2. Weak Intention**(WI)**	
	No	**3.**Intention with poor internet search experience**(IWPIE)**	**4.**No Intention **(NI)**	

Offered construct has depicted four categories of online shoppers Intention Quotient.

1. Strong Intention (SI) : Online shoppers Intention Quotient from this category influenced by both variables ie. information available on internet as well as use the internet to search for product.

2. Weak Intention (WI) : Online shoppers Intention Quotient from this category influenced only due to information available on internet , where as these type of online shoppers do not use internet or usage of internet is very less to search for product information.

3. Intention With Poor Internet Search Experience (IWPIE): Online shoppers from this category shows exact opposite behavior compare to WI- Online shoppers **.**Intention Quotient of this type of online shoppers influenced due to use of internet to search for products, where as available information on internet does not influence them to purchase online

4. No Intention (NI): Online shoppers IQ from this category both the variables, Available information on internet & use of internet to search for product does not influence their IQ.

1. **Only Q. No 5 with PQ.**

Table-1: Case Processing Summaryfor use of internet to search more product information with PQ

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
B.5. Do you use internet to search about products, to get more information about them, or for products that you are not aware about? * Purchase Quotient	2035	100.0%	0	0.0%	2035	100.0%

Table- 2: Crosstabulation for use of internet to search more information about product with PQ

			Purchase Quotient				Total
			HFHV	LFHV	HFLV	LFLV	
B.5. Do you use internet to search about products, to get more information about them, or for products that you are not aware about?	Yes	Count	155_a	286_a	182_a	979_a	1602
		% within Purchase Quotient	75.2%	78.4%	80.9%	79.0%	78.7%
	No	Count	51_a	79_a	43_a	260_a	433
		% within Purchase Quotient	24.8%	21.6%	19.1%	21.0%	21.3%
Total		Count	206	365	225	1239	2035
		% within Purchase Quotient	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

But Cross tabulation of Purchase Quotient with use of internet to search about product shows less variation in the observed values of among all categories of Mumbai based online shoppers PQ , ie values of HFHV (Loyal E-Shoppers) is 75 %,LFHV (Moderate E-Shoppers) is 78 %, HFLV (Frequent E-Shoppers) is 81 % &LFLV (Strangers) is 79 % ref.(Table-2).
The cross tabulation table (2) with column proportions (using bonferroni method) denotes there is no relationship between a person's search activity (Intention) and purchase activity
Each subscript letter (a) denotes a subset of Purchase Quotient categories whose column proportions do not differ significantly among themselves.

Table- 3: Significance of information read by use of internet to search more information about product with Purchase Quotient

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.212^a	3	**.530**
Likelihood Ratio	2.175	3	.537
Linear-by-Linear Association	.957	1	.328
N of Valid Cases	2035		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 43.83.			

According to Pearson's chi square table (3) value of **0.530>0.05**. The subscript (a) across all the column values substantiate our finding that use of internet to search product's information does not influence online shoppers purchase quotient.

Table-4:Strength of association read by Eta- Directional Measures

Directional Measures

			Value
Nominal by Interval	Eta	B.5. Do you use internet to search about products, to get more information about them, or for products that you are not aware about? Dependent	.033
		Purchase Quotient Dependent	.022

However if we look at Eta value is 0.033 Ref.(Table-4),which indicates use of internet to search product's information & purchase quotient has very weak association/relationship ie just 3%.

2. **Only Q.No. 6(**– Does the information available on the internet influence you to purchase product online YES or NO)**with PQ**

Table - 5 : Case Processing Summary for information available on the internet influence to purchase online with PQ.

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
B.6. Does the information available on the internet influence you to purchase the product online? * Purchase Quotient	2035	100.0%	0	0.0%	2035	100.0%

Table- 6:Cross tabulationfor the information available on the internet influence to purchase the product online with Purchase Quotient

			Purchase Quotient				Total
			HFHV	LFHV	HFLV	LFLV	
B.6. Does the information available on the internet influence you to purchase the product online?	Yes	Count	148_a	272_a	161_a	947_a	1528
		% within Purchase Quotient	71.8%	74.5%	71.6%	76.4%	75.1%
	No	Count	58_a	93_a	64_a	292_a	507
		% within Purchase Quotient	28.2%	25.5%	28.4%	23.6%	24.9%
Total		Count	206	365	225	1239	2035
		% within Purchase Quotient	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Each subscript letter (a) denotes a subset of Purchase Quotient categories whose column proportions do not differ significantly from each other among all categories of online shoppers at the 0.05 level of significance.

Table -7: Significance of information read by, the information available on the internet influence to purchase the product online with Purchase Quotient

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.919[a]	3	**.270**
Likelihood Ratio	3.859	3	.277
Linear-by-Linear Association	2.370	1	.124
N of Valid Cases	2035		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 51.32.

According to Pearson's chi square table (7) value of 0.270 >0.05. The subscript (a) across all the column values substantiate our finding that information available on the internet does not influence online shoppers purchase quotient to purchase the product online.

Table - 8 :Strength of association read by Eta- Directional Measures

		Value
Nominal by Interval Eta	B.6. Does the information available on the internet influence you to purchase the product online? Dependent	.044
	Purchase Quotient Dependent	.034

As shown in the above table(8)a Chi square value of **0.270 > 0.05** that denotes no relationship between a person getting influenced by the information available and subsequent purchase behavior. Probably people after searching for a product on the net finally purchase offline rather than online.Where as according to Eta-Directional Measures association between information available on internet & purchase quotient of online shoppers shows very weak association ie just 4%.

I – II

I (Intention Quotient) with II (Purchase Quotient)
The following chi square table summarizes the relationship between PQ and IQ.

Table - 9 : Case Processing Summary for both IQ & PQ

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
INTENTION QUOTIENT Q5 AND Q6 * Purchase Quotient	2035	100.0%	0	0.0%	2035	100.0%

Table -10 : Cross tabulation for Intention Quotient (BOTH Q- 5 &6) with Purchase Quotient and reading labels

			Purchase Quotient				Total
			HFHV	LFHV	HFLV	LFLV	
INTENTION QUOTIENT Q5 AND Q6	STRONG INTENTION	Count	127_a	240_a	142_a	803_a	1312
		% within Purchase Quotient	61.7 %	65.8 %	63.1 %	64.8 %	64.5 %
	INTENTION WITH POOR INTERNET EXPERIENCE	Count	28_a	46_a	40_a	176_a	290
		% within Purchase Quotient	13.6 %	12.6 %	17.8 %	14.2 %	14.3 %
	WEAK INTENTION	Count	21_a	32_a	19_a	144_a	216
		% within Purchase Quotient	10.2 %	8.8%	8.4%	11.6 %	10.6 %
	NO INTENTION	Count	30_a	47_a	24_a	116_a	217
		% within Purchase Quotient	14.6 %	12.9 %	10.7 %	9.4%	10.7 %
Total		Count	206	365	225	1239	2035
		% within Purchase Quotient	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Given table (10) shows each subscript letter(a) denotes a subset of Purchase Quotient categories whose column proportions do not differ significantly from each other at the .05 level of significance.

Table - 11: Significance of information and reading label for both IQ & PQ.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.131[a]	9	.157
Likelihood Ratio	12.811	9	.171
Linear-by-Linear Association	2.007	1	.157
N of Valid Cases	2035		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 21.87.

Table - 12 : Strength of association between IQ & PQ read by Eta-Directional Measures

			Value
Nominal by Interval	Eta	INTENTION QUOTIENT Q5 AND Q6 Dependent	.035
		Purchase Quotient Dependent	.065

Given Chi-square table (11) value is 0.157 & Eta directional measures table (12) value is 0.035 % the composite index of ***Intention Quotient*** with ***Purchase Quotient*** shows very weak association is just 3% &
also gives us the same conclusion that final purchase behavior is not a result of a strong intention. Then we accept H0(7)& H0(8) null hypotheses & reject H7 & H8 research hypothesis .

Impact of activities perform using internet on online shoppers PQ (Purchase Quotient)

Table - 13: Significance of information and reading of label for using internet for E-mail with PQ

B.2. What are the activities that you perform using Internet? - 1. Email		Value	df	Asymp. Sig. (2-sided)
Yes	Pearson Chi-Square	8.225[b]	9	.512
	Likelihood Ratio	8.813	9	.455
	Linear-by-Linear Association	.033	1	.857
	N of Valid Cases	1448		
No	Pearson Chi-Square	13.016[c]	9	.162
	Likelihood Ratio	12.531	9	.185
	Linear-by-Linear Association	3.559	1	.059

	N of Valid Cases	587		
Total	Pearson Chi-Square	13.131[a]	9	.157
	Likelihood Ratio	12.811	9	.171
	Linear-by-Linear Association	2.007	1	.157
	N of Valid Cases	2035		

Table - 14: Significance of information and reading of label for using internet for Face-book with PQ

2. Face book		Value	df	Asymp. Sig. (2-sided)
Yes	Pearson Chi-Square	3.319[b]	9	.950
	Likelihood Ratio	3.285	9	.952
	Linear-by-Linear Association	.002	1	.966
	N of Valid Cases	1305		
No	Pearson Chi-Square	17.188[c]	9	.046
	Likelihood Ratio	17.501	9	.041
	Linear-by-Linear Association	1.450	1	.229
	N of Valid Cases	730		
Total	Pearson Chi-Square	13.131[a]	9	.157
	Likelihood Ratio	12.811	9	.171
	Linear-by-Linear Association	2.007	1	.157
	N of Valid Cases	2035		

Table - 15: Significance of information and reading of label for using internet for Gaming with PQ

3. Gaming		Value	df	Asymp. Sig. (2-sided)
Yes	Pearson Chi-Square	6.038[b]	9	.736
	Likelihood Ratio	5.627	9	.777
	Linear-by-Linear Association	.884	1	.347
	N of Valid Cases	621		
No	Pearson Chi-Square	11.188[c]	9	.263
	Likelihood Ratio	11.260	9	.258
	Linear-by-Linear Association	.434	1	.510
	N of Valid Cases	1414		
Total	Pearson Chi-Square	13.131[a]	9	.157
	Likelihood Ratio	12.811	9	.171
	Linear-by-Linear Association	2.007	1	.157

	N of Valid Cases	2035		

Table - 16: Significance of information and reading of label for using internet for Learning with PQ

4. Learning		Value	df	Asymp. Sig. (2-sided)
Yes	Pearson Chi-Square	11.705[b]	9	.230
	Likelihood Ratio	11.762	9	.227
	Linear-by-Linear Association	.014	1	.905
	N of Valid Cases	1039		
No	Pearson Chi-Square	12.363[c]	9	.194
	Likelihood Ratio	12.173	9	.204
	Linear-by-Linear Association	2.302	1	.129
	N of Valid Cases	996		
Total	Pearson Chi-Square	13.131[a]	9	.157
	Likelihood Ratio	12.811	9	.171
	Linear-by-Linear Association	2.007	1	.157
	N of Valid Cases	2035		

Table - 17: Significance of information and reading of label for using internet for Shopping with PQ

5. Shopping		Value	df	Asymp. Sig. (2-sided)
Yes	Pearson Chi-Square	6.570[b]	9	.682
	Likelihood Ratio	6.293	9	.710
	Linear-by-Linear Association	2.605	1	.107
	N of Valid Cases	1000		
No	Pearson Chi-Square	12.652[c]	9	.179
	Likelihood Ratio	12.618	9	.181
	Linear-by-Linear Association	.027	1	.869
	N of Valid Cases	1035		
Total	Pearson Chi-Square	13.131[a]	9	.157
	Likelihood Ratio	12.811	9	.171
	Linear-by-Linear Association	2.007	1	.157
	N of Valid Cases	2035		

Table - 18: Significance of information and reading of label for number of hours spent on internet using internet with PQ

B.1. No. of hours spent on browsing Internet (in a day)		Value	df	Asymp. Sig. (2-sided)
1-3 Hours	Pearson Chi-Square	9.290[b]	9	.411
	Likelihood Ratio	9.468	9	.395
	Linear-by-Linear Association	.603	1	.437
	N of Valid Cases	1318		
4-6	Pearson Chi-Square	8.880[c]	9	.448
	Likelihood Ratio	8.826	9	.453
	Linear-by-Linear Association	.444	1	.505
	N of Valid Cases	517		
10-12	Pearson Chi-Square	19.151[d]	9	.024
	Likelihood Ratio	21.293	9	.011
	Linear-by-Linear Association	1.833	1	.176
	N of Valid Cases	200		
Total	Pearson Chi-Square	13.131[a]	9	.157
	Likelihood Ratio	12.811	9	.171
	Linear-by-Linear Association	2.007	1	.157
	N of Valid Cases	2035		

Table - 19: Analysis summary of activities performs on internet & its impact on PQ.

Activities perform on internet	**Parameters Yes / No**	**IQ Significance @ 0.05 % LOS.**	**Relationship with PQ Yes/ No.**
E-mail	Yes No	0.512 0.162	No No
Face-book	Yes No	0.950 0.046	No Yes
Gaming	Yes No	0.736 0.263	No No
Learning	Yes No	0.230 0.194	No No
Shopping	Yes No	0.682 0.179	No No
No. of hours spent on internet	1-3 hrs. 4-6 hrs. **10-12 hrs.**	0.411 0.448 **0.024**	No No **Yes**

4. FINDINGS

- Use of internet to search about product shows less variation in the observed values of among all categories of Mumbai based online shoppers PQ , ie values of HFHV (Loyal E-Shoppers) is 75 %,LFHV (Moderate E-Shoppers) is 78 %, HFLV (Frequent E-Shoppers) is 81 % &LFLV (Strangers) is 79 % ref.(Table-2).
- The cross tabulation table (2) with column proportions (using bonferroni method) denotes there is no relationship between a person's search activity (Intention) and purchase activity
- Each subscript letter(a) denotes a subset of Purchase Quotient categories whose column proportions do not differ significantly among themselves.
- The subscript (a) across all the column values substantiate our findings that use of internet to search product's information does not influence online shoppers purchase quotient.
- However if we look at Eta value is 0.033 Ref.(Table-4),which indicates use of internet to search product's information & purchase quotient has very weak association/relationship ie just 3%.
- The subscript (a) across all the column values substantiate our finding that use of internet to search product's information does not influence online shoppers purchase quotient.
- As shown in the table (8)a Chi- square value of **0.270 > 0.05** that denotes no relationship between a person getting influenced by the information available and subsequent purchase behavior. Probably people after searching for a product on the net finally purchase offline rather than online. Where as according to Eta-Directional Measures association between information available on internet & purchase quotient of online shoppers shows very weak association ie just 4%.
- **Given Chi-square table (11) value is 0.157 & Eta directional measures table (12) value** is 0.035 % the composite index of ***Intention Quotient*** with ***Purchase Quotient*** shows very weak association is just 3% &
- also gives us the same conclusion that final purchase behavior is not a result of a strong intention.
- Activities performed on internet such as E-mail, Face-book, Gaming, Learning, Shopping& number of hours spent on internet findings are giving surprising results, among all the activities non-face book users Intention Quotient is significant ie 0.046 < 0.05% LOS and having relationship with Purchase Quotient. Where as shoppers those spending maximum number of hours ie. 10-12 hrs per day shows Intention Quotient is significant ie 0.024 < 0.05 LOS and it is also influence their Purchase Quotient.

5. GRATITUDE

The data for this study was collected by the students of MMS and PGDBM program of the BharatiVidyapeeth's Institute of Management Studies and Research , Dr. Ingle from BharatiVidyapeeth's College of Engineering . Mr. Bhosle and admin team from BVCOE for technical support. and last but not the least Dr. Nadeem Marchant for his guidance in data analysis. We are also thankful to the respondents who spent their time to answer the questionnaire .Without their cooperation the study could not have been completed. And last but not the least would like to express our gratitude to very supportive and inspiring my beloved life partner Dr. Mohammed Zafar Shaikh & son Master Mohammed Suhail.

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A STUDY ON E-NNOVATING STARTUP TO M&A

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ABSTRACT

India is a country with varied intellects. The history has numerous cases which proved the mettle of Indian Brains. The innovation or appetite to risk is seen all over the place right from a small shop on a small street to a big giant entering / catering to the country.

The words disruption and transformation go hand in hand and are each other's successors. The moment of disruption brings in transformation. Indians have become successful in creating an ecosystem of their own where an enterprise start working and soon unfolds one of the basic necessities of human civilization. A business which seemed far away now is at our doorstep.

We started from a closed economy liberalized privatized and globalized but still the appetite of Indian business was not full and so they e-nnovated. The Indian magnet is still hungry is now prepared to take a big leap.

Every organized and unorganized sector today is transforming by diversifying in an innovative way may it be PayTM which started as an Astrological Service Provider to a Exceptional Money Model (e-wallets) or be it Ziwame specializing in personal hygiene online.

The businesses are many and so are the tales of these success stories. What has really changed has the pattern of risk through diversification. This transformation has also challenged the creativity and thought process of customers who are continuously demanding something new, something unique and this opportunity is being cashed by or fueling the growth of startups at the same time making it essential for the big business house come out of their shell. This is the major transformation which is starting from the small and taking them big ending with M&A.

The paper is an attempt to categorize these moves and understand the relation between disruption of resources and transformation.

KEYWORDS: Disruption, e-nnovating, demand, M&A, transformation, change, success.

1. INTRODUCTION

In the real world of brick and mortar business. Every day millions of people are dragging themselves from their comfortable beds, performing their morning rituals of washing and breakfast to head to their jobs. In their daily grind some are thinking that there must be a better and easier way to make a living.

All these millions know someone or know of someone who has "made it" by quitting their boring existence and become their own boss using their own computers in the comfort and ease of home.

While the idea of working from home sounds like an ideal solution, most are just not preparing. Many of these unhappy people will just quit their jobs and jump right into the first business they find with no preparation, no knowledge of what they are doing, no education, and no hope of success. Failure is their only option and they are not even aware of it.

According to many sources, more than 90% (Ninety percent) of all start-ups end in failure within the first 120 (one hundred twenty) days**.** And that number is all too accurate: NINETY PERCENT!

It's important for us to first understand a STARTUP. Startup means an entity, incorporated or registered in India not prior to five years, with annual turnover not exceeding INR 25 crore in any preceding financial year, working towards innovation, development, deployment or commercialization of new products, processes or services driven by technology or intellectual property.

The GOI on 18th February 2016 published the Start Up India Gazette. The startups gained such a momentum that the buzz around gained substantial attention of traditional financial institutions, startups, venture capitalists and regulators. Banks and regulators were hard-pressed to revisit their operating model and policies respectively to create a conducive environment of collaboration and dynamism amidst the participants in the ecosystem.

Evolution of start-ups is definitely imperative for a successful ecosystem. The flourishing effect of start-up has been catalyzed by an increasing demand for digital financial products by consumers, rampant rise of connected devices and support of venture capitalists.

While start-ups are redesigning the financial services processes with their high-end technological expertise, incumbent players are also following suit and investing heavily in creating new products of their own. The trend is increasingly shifting from start-ups seen majorly as disrupters to also being enablers of change. Hence, there is greater collaboration being seen and expected between different players of the ecosystem with the start-ups.

However, for start-ups to maintain their momentum, they need to demonstrate to our regulatory bodies that they can benefit the society, by putting forth ample evidence to public, institutions and the regulators that they can be regulated and monitored sustainably.

2. OBJECTIVE OF STUDY

1) To understand the concept of Startup.
2) To study the Ecosystem for Startups.
3) To study the effect of Internet for Startups.
4) To study the failure attitude among Startups.
5) To study the journey from Startup to Merger or Acquisition.

3. RESEARCH METHODOLOGY & SCOPE OF STUDY

The paper is studied across the Mumbai City and on the basis of the data of Startups across India available through secondary source and government website. The paper is a result of Qualitative & Explorative Research.

4. STARTUP ECOSYSTEM

4.1.TECHNOLOGY VENDORS

Support from tech vendors is required for the development of entrepreneurial ecosystem in the country. With complex technologies being used to disrupt traditional functions, start-ups need the backing of expert tech vendors in terms of infrastructure and skills. A few technology vendors involved in developing financial technology propositions in the following focus areas:

Innovation focus

The innovation - heavy firms are setting their financial technologies and solutions development for fintech.
Example:
• IBM is working with the Hyperledger programme in association with Linux Foundation to develop blockchain - based solutions.

Funding and incubation focus

Many Indian service firms have shown a growing focus on investment and incubation in the last year. This is strategically synchronized with the 'Startup India' campaign, and the global investment inflow. Example:•Wipro set -aside USD 100million VC fund in 2014 to invest in start-ups to join the league of tech vendor-investors such as Tech Mahindra and Persistent Systems.
•A leading IT company has committed USD 250 million 'Innovate in India Fund' to support & incubate Indian start-ups.
•Microsoft Ventures enables many early stage fintech start-ups in scaling up fast through their bespoke ScaleUP and HiPO programs as part of their umbrella accelerate initiatives.

Collaboration

Major IT firms with a community development focus, are not just setting up funds, but also engaging with other accelerators to multiply their reach and impact.

Example:
• Cognizant has launched engagement programs with Start-ups, with special focus on fintech firms.
• TCS has partnered with fintech accelerator Startup bootcamp for an engagement platform, Pitchdays.

Capability Development and inclusion

Some incumbent financial solution provider are addressing the smaller BFSI client needs with bespoke solutions.
Example:
• A leading Indian technology vendor launched Payments Bank and Small Finance Bank solutions to assist new banking organizations with mobile wallet, micro ATMs and agency banking solutions.

4.2.FINANCIAL INSTITUTIONS

The BFSI community (including banks, NBFCs and other institutions) is witnessing significant impact with the advent of the financial sector. However, now the incumbents are viewing financial sector as an enabler rather than a disrupter.

Large banks are tapping into the start-up ecosystem to incubate and create alliances on a variety of platforms such as wallets, investment intermediation, online client acquisition etc. They are not only developing platforms for such start-ups to thrive, but are also beginning to invest in such platforms. To address the multi-faced impact of this growing disruption, the BFSI incumbents in India are adopting a four-pronged strategy:

Investment driven

The BFSI sector is gearing for both acquisitions and funding- based routes to increase its presence in the emerging ecosystem. For example Citi Bank, Barclays and Goldman Sachs have launched focused accelerator programmes.

Partnership driven

Partnerships by financial firms (in point-of-sale hardware, credit deals and social lending) with banks with a synchronized go-to-market strategy are addressing the immediate demand of digital-age consumers.
Example:
• SBI has teamed up with Ezetap to provide mobile POS devices across India.
• Bank of India offers a wallet from Paynimo powered by TechProcess.

Market driven

To counter a steady challenge by venture backed finance firms, many incumbents are augmenting their value chain with competing offerings and leveraging their own distribution and client base.

Collaboration driven

Setting up, managing or investing in centers of excellence and financial hubs is an excellent strategy to take an inside view of the emerging finance firms' working, and to nurture talent for a future competitive advantage.

Example:
• Yes Bank is collaborating with T-Hub and three academic institutes to set up a centre of excellence and app store for start-ups.

Indian Financial Ecosystem holds a particularly critical promise as a potential solver of Indian financial institutions' traditional problems:
- low penetration, scarce credit history and cash
- driven transaction mentality. If the triple
- front participation from financial institutions
- as investors, partners and clients
- can be harnessed, Indian BFSI sector is set for a grand evolution riding on the growth wave.

4.3.USERS

Indian customers (both consumer and enterprise) have shown an unexpectedly fast rate of adoption to technological offerings. Decades of usage behavior fixated on cash, branch banking and relationship-driven service expectations are being fast replaced with larger ticket size of cashless transactions, full-suite mobile banking and customized advice and service irrespective of location, language and grade classifications. The change is coming from different fronts, such as:

Mobile and Internet coverage

India has seen significant growth in both the number of smartphone users and Internet users over the past few years.
Example:
• India is ranked third in terms of the number of smart phone users and this deep penetration into the Indian population base offers firms an opportunity to address the legacy issues of low banking penetration (53 per cent) and dormancy (43 per cent) in the Indian Banking sector.

Digital payment processing in public services

The Indian population has been directed to unprecedented levels of inclusion in the current governmental regime. With time, larger services like remittances, pension's disbursal and direct to user subsidy is expected to see openness to the data: heavy, transparent processing.
Example:
• Railway booking (IRCTC) tie-up with Paytm Wallet may bring 1+ crore user base annually.

Maturity of e-commerce to handle larger ticket-sizes

E-commerce in India has been established, and is now trusted to deliver large ticket products in Tier I, II cities without the protective clause of Cash-On-Delivery. This evolution of the Indian mind-set will bolster the adoption of payment processing of firms.
Example:
• Paytm crossed a user base of 100 million in 2015. Competitor, MobiKwik's user base grew by 300 percent within 2014-15.

4.4.UNIVERSITIES AND RESEARCH INSTITUTIONS

For a successful innovative ecosystem, academic bodies need to build entrepreneurial mindshare in India's young talent. While individual entrepreneurship cells across Indian universities exist, they are largely student managed and need a larger backing from the administration to make an impact. The leading institutions in India have consistently led the administration and management led initiatives, setting up events, competitions and courses.
Example:
• IIT Roorkee has launched Global Entrepreneur Conclave to build entrepreneurial skills along with academic competence of technology in students.
• IIT Delhi is organizing Open house 2016 to promote innovative research and product development projects.
• BITS Pilani launched SPARK initiative to enable angel funding.

While some Indian academia and research institutions are setting up funds and incubators, matching the scale of their global counterparts will require more and perhaps external resources, given India's subsidized higher educational model.

4.5.INCUBATORS, ACCELERATORS AND INNOVATION LABS

Indian Ecosystem has recently seen a strong upsurge in support and mentorship in 2014-15. The sector is driven by young, first generation entrepreneurs who are now competing with the largest financial institutions in an extremely tough, cost-conscious Indian market. Therefore in India, the role of incubators, accelerators and sponsored innovation labs is critical for not just funding, mentorship and peer connections but also financial industry exposure and soft skills. Some of the notable initiatives on this front are 91 Springboard, Innov8, K-start and Zone Startups India. The prime stakeholders are categorized as given below:

Financial Institution

Financial Institutions are the strategically closest partners that are discovering core sector talent and developing platforms, products and solutions, along with providing funding and industry exposure.
Example:
• Societe Generale Global Solution Centre (SG GSC) in collaboration with NASSCOM 10,000 Startups has announced its Accelerator Program CATALYST, a 10-week programme to focus on advanced technologies relevant to the BFSI sector.

• Kotak Fintech mobility hackathon has partnered with NASSCOM 10,000 Startups to identify founders developing apps around banking innovation.
• PayPal's StarTank at Chennai provides mentorship and infrastructure support

Non Financial Institutions

With a comparatively lesser focus on core-sector fitment of these institutions are focused on incubation more than acceleration or lab setup.
Example:
• Tata Group launched an incubator in 2012 to support product and services start-ups, especially, early-stage ventures, E27 in Bengaluru.

Industry Associations

Associations, driven by sector-level development and readiness goals are playing a critical part in bringing in technology and industry experts, and addressing the requirements from a long-term vision.

NASSCOM is playing a particularly vital role in the expansion of start-ups in India with its 10,000 start-up program. Some of the notable initiatives in are given below:
• NASSCOM is facilitating a three-month acceleration programme for Indian start-ups in Zurich organized by UBS.
• NASSCOM 10,000 Startups is a programme partner for Axis Bank's soon-to-be-launched fintech accelerator programme, Barclay's RISE acceleration programme and Accenture's Open Innovation programme and Accelerator programme in Hong Kong.
• NASSCOM 10,000 Startups co-organized a virtual Appathon with ICICI Bank in February 2016 and is assisting Kotak Mahindra Bank to reach out to Women in Tech through curated programs.

5. ATTRIBUTES OF A SUCCESSFUL HUB

Entrepreneurial and innovative mindset

Entrepreneurs infuse the right spirit and culture to drive growth of innovative start-ups. The metrics used to measure it includes IMD's entrepreneurship index, innovation and sophistication index, openness and attitude towards globalization.

Government programmes and incentives

Government sets the platform for smooth operations of start-ups with their favourable policies and tax incentives specific to the fintech sector.

Technology readiness

Technological skills and infrastructure form the foundation of fintech. Index used to measure this includes IT skills index, percentage of qualified technology workforce, cybersecurity levels and internet penetration in the nation.

Regulatory support

State efficiency and a supportive legislative framework encourages the establishment of start-up firms in a nation. This is measured through indices such as regulatory compliance, flexibility and adaptability of the legal system etc.

Business environment

The ease of doing business index, country competitive index, number of days and procedures to start a business help in creating a conducive business environment.

Funding

Availability of venture capitalists and other investors interested in investing in risky star.

Based on these attributes as stated in a study from KPMG analysis India is gaining ground on the growth of ecosystem with fair supply of proficient and inexpensive talent, a potential to capture a large portion of the unbanked population and a steady inflow of funds.

India is slowly moving up the growth ladder, primarily driven by its robust ecosystem where several players are increasingly supportive both in terms of providing funds as well as building technological and entrepreneurial skills. A strong talent pipeline of an inexpensive and easy-to-hire workforce is one of the most advantageous factors of the country.
Some roadblocks in the widespread adoption in India are the lack of authentic consumer information on digital media and low technological and digital infrastructure. Also, as identified from KPMG's growth driver analysis, governmental incentives, regulatory mandates and a robust business environment will be the most impactful levers in getting the Indian fintech market up to speed and enable it to better address these roadblocks.

Greater collaboration between market participants to leverage and cross-pollinate learnings and entrepreneurial experiences is an impetus for the growth of this sector.

The second most impending aspect is building a cohesive environment which includes 100 percent digital infrastructure penetration, unbiased incubation support to start-ups and lucrative incentives. And since, economy is growing without any boundaries, the final stride is to build an independent focused trade body that can consolidate the effort and create a formal sector for budding entrepreneurs.

With all these positive changes in the economy one cannot forget the fact that the impetus although is high but the attitudinal change in the mindset of the vast population is yet to happen and show results. The traditional mindset which is a gathering of experiences by our experienced population still is a driving and deciding force and many few Entrepreneurs thus make it to the big dream. For all others the idea which once they nurtured and watered somewhere seems to fade away thus resulting in a move which takes them closer to the next stage of reality where it's characterized as a feeling of loss and of mourning. Which is seemingly at odds with the arrival of a new life which is just the opposite — gain and celebration. This intellectual dissonance creates secondary emotional effects, specifically the devastating belief that "I must be a bad mom for being sad that I have a new baby."

Besides, postpartum depression is triggered by the arrival of responsibility and, if you insist on the baby/startup analogy, selling your company is the departure of responsibility. But one thing that definitely is the same is that "feeling of loss and mourning." A piece of yourself has been eviscerated, irrevocably.

The fate of Majority of the Start-ups is decided in the first 120 days of its establishing. In the first 120 days the strategies that the start-up applies decides the route of the start-up and thus the venture either shoots up or it ends up in a Merger or Acquisition.
The recent studies by various research organizations around the world do support this paper where the mortality rate of the startup is studies. The death of a start-up depends on various parameters but the central one being a poor planning and unplanned use of existing resources.
The economy has been witnessing both the types of examples where the companies who were earlier seen as a slow runner suddenly started performing and vice versa which were earlier performing well now were unable to survive the competition. The reasons for failure are many to name a few:

1. Many don't know the statistical probabilities they face.
2. Many don't see themselves as being part of the failures or they wouldn't leap.
3. Many are talked into things they are unprepared for.
4. Many don't know the basic tenant of – "If you fail to plan, then you plan to fail."
5. Some Wrong Ideas on the Internet.
6. They Do Not Have a Business Background.
7. They Do Not Have The Right Mindset.

Ways to Avoid Failure:

1. Starting a business, any business, has no guarantee of success, period!
   Even large multi-national businesses can fail in a new business venture. Failure is always an option and the possibility or probability of success can be enhanced.
2. You can increase your possibility of success by:
3. Making a business plan BEFORE starting your online business. To remind you one of the things I said at the beginning: "If you fail to plan, then you plan to fail." A plan for success is a requirement. Have the steps listed in great detail including reasonable cost estimates for completing each step.
4. Expect to work hard to achieve your goals. Never expect things to be easy. Most of the time things are not as easy as they appear. Each successive step will require its own work, time and patience. Sometimes things don't go right on the first try. Be willing to keep going again and again until you succeed.
5. Do not fall for a get-rich-quick scheme. The internet woods are full of those who prey upon those who are looking for quick and easy ways to become rich. Most are ways for the other person to get rich quick from your money.

6. CONCLUSION

Evidence that the Internet has had a profound effect on the way people live and do business is all around us. We can find anecdotal proof in almost everything we do—most people's lives have been changed indefinitely by the technology that has cropped up in the past several decades. And small businesses, even more so, have changed the way they conduct commerce. A new study just out by the Internet Association confirms what we've known for so long—the Internet is a major driver of part-time businesses in the world.

When we ranked various sectors by total number of funding deals over the past three-and-a-half years, the Industrial/Enterprise category came out on top with almost 600 deals. We're entering what's been called the "Factory 4.0" era, in which a combination of sensors, software and backend cloud compute and storage is giving companies new insights into the performance of their physical assets. Quite a few deals in the manufacturing sub-category of Industrial/Enterprise IoT were of this nature. These startups can demonstrate swift "RoIoT"—or return on investment in IoT—to customers, who use the data and predictive analytics provided to minimize unplanned downtime and outages. On the Enterprise front, we saw a reasonable amount of activity in sub-categories such as building management services, healthcare and retailing.

After a funding boom in which Indian Internet supported start-ups attracted more than $9 billion over 18 months, venture capital firms changed their approach in 2016, asking entrepreneurs to cut costs and avoid pursuing sales growth by offering deep discounts. Many of the start-up stars of 2015—Flipkart, Snapdeal, Ola, Grofers, Oyo and Zomato—went into cost-cutting mode. Mergers among struggling companies, distress sales and start-up shutdowns increased sharply.

Well, frankly speaking, no one ever really understood the "formula" of a successful product. There are so many parameters that it's impossible to comprehend them all. Even the great Apple, with all their focus and gigantic amount of cash, could only have a few of a such success. With a thoughtful process, one could invent a considerably successful product, but to hit the real jackpot, it's the game of luck.

While every company's circumstances are unique, the research found four principles that are essential to sustaining growth and from which every company can benefit. First, growth happens in phases: from start-up to billion-dollar giant, growth stories typically unfold as a prelude, act one, and act two. In act one; there are five critical enablers of growth: market, monetization model, rapid adoption, going global, stealth, and incentives. A third principle is that the drivers for growth in act two are different. Successful strategies in act two include expanding the act-one offer to new geographies or channels, extending the act-one success to a new product market, or transforming the act-one offer into a platform. Finally, successful companies either master the transition from one act to the next. Pitfalls include transitioning at the wrong time and selecting the wrong strategy for the next act resulting in Mergers and Acquisition.

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A STUDY OF ORGANIZED RETAILING CHALLENGES AND ITS IMPACT ON RETAIL SUPPLY CHAIN MANAGEMENT

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ABSTRACT

India is becoming preferred destination in the world for retail business. Indian retail industry is ranked among the ten largest retail markets in the world. Today retail sector is contributing 10% of GDP.In retail industry organised retailing offers huge potential for future growth due to rapid urbanisation and changing needs of the customer. This paper provides the information on the growth of retail industry. Unfortunately organized retail industry is facing challenges which are stopping industry to grow. So in this research paper challenges faced by the retailors are identified by structured interview method particularly in a city of Mumbai and Navi Mumbai.45 Organized outlets are selected by non-probabilistic convenience sampling method. Supply chain management is a vital part of organized retail industry. An attempt has been made to study the association between challenges faced by the retailors and supply chain parameters in terms of stock out and overstocking in organized retail industry. The result of the study shows that challenges like high cost of real estate and volatile and unpredictable demand are found to be associated with supply chain parameters like stock out and overstocking in organized retail industry respectively. The limitation of the study is results cannot be generalized as sample of the study is from only city of Mumbai and Navi Mumbai.

KEYWORDS: Challenges, Stock out, Overstocking, Retail supply chain management.

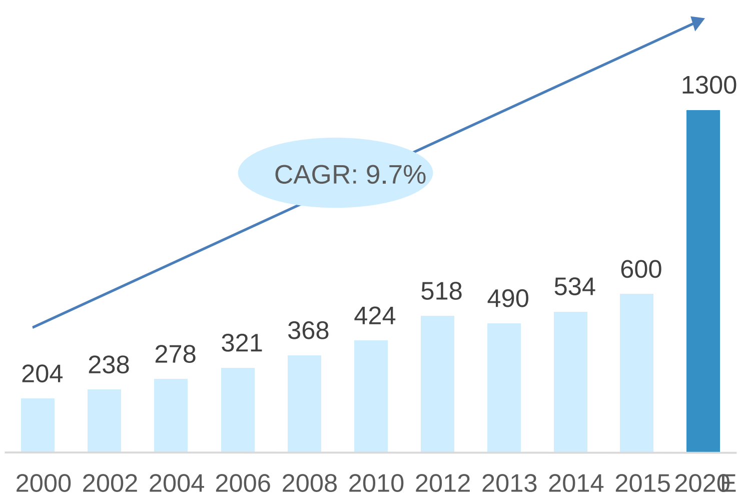
1. INTRODUCTION

The Indian Retail sector has gone through major transformation over the last decade with a noticeable shift towards organised retailing. A T Kearney, a US Based global management consulting firm has ranked India as the fourth most attractive nation for retail investment among 30 flourishing markets. Retail industry can be broadly classified into two categories namely-organised and unorganised retail. Organized retail - Organised traders/retailers, who are licensed for trading activities and registered to pay taxes to the government Unorganized retail – It consists

of unauthorized small shops - conventional Kirana shops, general stores, corner shops among various other small retail outlets - but remain as the radiating force of Indian retail industry.
In the past few years, Indian Retail sector has seen tremendous growth in the organized segment. Major domestic players have stepped into the retail arena with long term, ambitious plans to expand their business across verticals, cities and formats. Companies like Tata, Reliance, Adani Enterprise and Bharti have been investing considerably in the booming Indian Retail market. Along with these giant retailers, a number of transnational brands have also entered into the market to set up retail chains in close association with bigger Indian companies. High consumer spending over the years by the young population (more than 31% of the country is below 14 years) and sharp rise in disposable income are driving the Indian organized retail sector's growth. Even Tier I & Tier II cities and towns a major shift in consumer preferences and lifestyles, the result of which, they have emerged as attractive markets for retailers to expand their presence. Key reasons for development are-
Reasonable Real estate prices,
Increase in disposable income and customer aspiration,
Demand as well as increase in expenditure for luxury items,
Growing preference for branded products and higher aspirations,
Growing liberalization of the FDI policy in the past decade,
Increasing urbanization, rising aꞌuence amid consumers
Bottlenecks are a long way to meet international standards, Lack of efficient supply-chain management, Lack of required retail space, No fixed consumption pattern, Shortage of trained manpower, Lack of proper infrastructure and distribution channel etc.

The Road Ahead…
Retail industry is expected to grow to USD1.3 trillion by 2020, registering a CAGR of 9.7 per cent between 20002020
Market size over the past few years (USD billion)

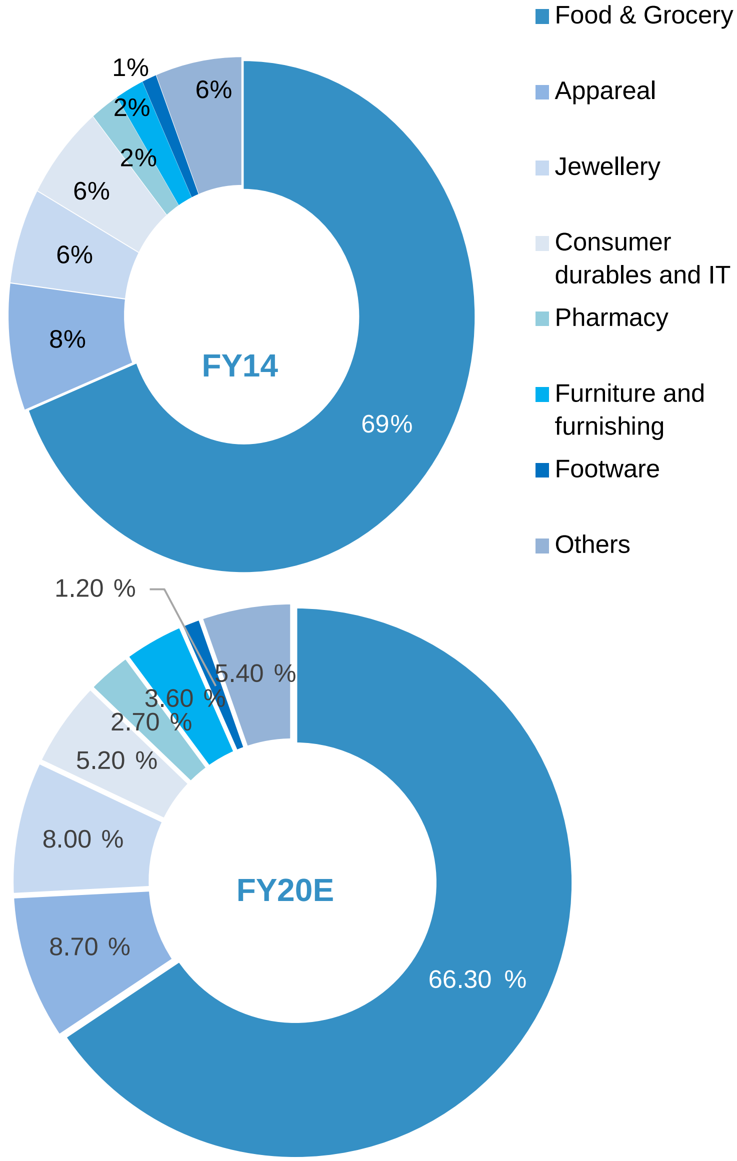
Intelligence Unit, Euro monitor, TechSci Research



Organized Retail Penetration (ORP) in India is low (8 per cent) compared with that in other countries, such as the US (85 per cent). This indicates strong growth potential for organized retail in In 2019, it is estimated that organized retail penetration share would reach 13 percent and unorganized retail penetration would hold a major share of 87 percent

FOOD & GROCERY ACCOUNT FOR LARGEST SHARE IN REVENUES IN INDIA

- In 2014, food & grocery accounted for nearly 69 per cent of total revenues in the retail sector, followed by apparel (8.0 per cent)
- Demand for Western outfits and readymade garments has been growing at 40–45 per cent annually; apparel penetration is expected to increase to 30-35 per cent by 2015
- In 2014, jewellery accounted for 6 per cent share in India retail sector and its share is expected to increase from 6 per cent to 8 per cent in FY20



Source: Technopak, Indian Retail Market January 2013, Deloitte,

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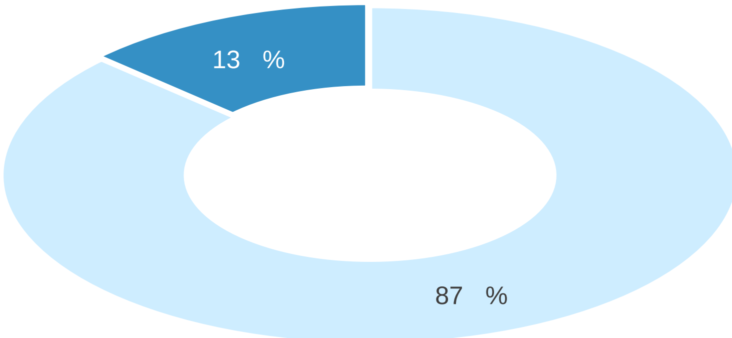
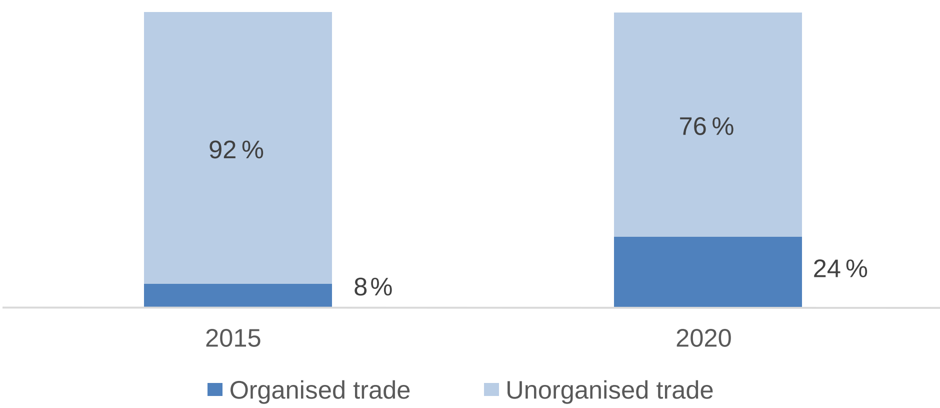
Organized retail penetration (2019)



- The Indian retail market is in its nascent stage; unorganized players accounted for 92 per cent of the market during 2013 There are over 15 million mom-and-pop stores
- Between FY09-13, organized retail in India witnessed a CAGR of 19-20 per cent
- Organized retail is expected to account for 24 per cent of the overall retail market by 2020

Significant scope for expansion in organized retail



Source: BCG

Challenges Facing Retailers in India Today

The challenges facing the Indian organized retail sector are various and these are stopping the Indian retail industry from reaching its full potential. The behaviour pattern of the Indian consumer have undergone a major change. This have happened for the Indian consumer is earning more now, western influences, and women working force is increasing, desire for luxury items and better quality. He now wants to eat, shop, and get entertained under the same roof. All these have lead the Indian organized retail sector to give more in order to satisfy the Indian customer.

The biggest challenge facing the Indian organized retail sector is the **lack of retail space**. With real estate prices escalating due to increase in demand from the Indian organized retail sector, it is posing a challenge to its growth. With Indian retailers having to shell out more for retail space it is effecting there overall profitability in retail.

Trained manpower shortage is a challenge facing the organized retail sector in India. The Indian retailers have difficulty in finding trained person and also have to pay more in order to retain them. This again brings down the Indian retailers profit levels.
The Indian government have allowed 51% foreign direct investment (FDI) in the India retail sector to one brand shops only. This have made the entry of global retail giants to organized retail sector in India difficult. This is a challenge being faced by the Indian organized retail sector. But the global retail giants like Tesco, Wal-Mart, and Metro AG are entering the organized retail sector in India indirectly through franchisee agreement and cash and carry wholesale trading. Many Indian companies are also entering the Indian organized retail sector like Reliance Industries Limited, Pantaloons, and Bharti Telecoms. But they are facing stiff competition from these global retail

giants. As a result discounting is becoming an accepted practice. This too bring down the profit of the Indian retailers. All these are posing as challenges facing the Indian organized retail sector. With **the rapidly changing profile of consumers the world over**, it remains a challenge for retailers to keep up with shifting shopping demands. Shoppers today are more discerning and better informed about products and services than ever before, expecting a certain standard of shopping experience from retailers. This might be a global trend, but in today's globalized environment, similar consumer trends may be replicated across most local markets too—including that of India. Each local market has its own distinct characteristics to which retailers need to adapt themselves to stay ahead of the game. Processes and approaches which work in the home country of a brand, may not necessarily work as efficiently in other geographies. Local preferences, traditions, tastes and preferences, besides real estate dynamics—such as operating infrastructure and costs—have to be kept in mind to ensure a successful foray into a foreign market place.
Despite the structural challenges and bureaucratic bottlenecks that the Indian retail market suffers from, global retailers have been queuing up to enter and establish their footprint in the market, as they are aware of its potential growth opportunities. Growth has almost plateaued in most developed markets, providing little room for retailers to drive their business expansion amid growing competition across segments. The Indian market being largely underpenetrated, offers significant opportunity for growth—especially in segments such as F&B, fashion apparel, and luxury goods—due to factors such as an expanding middle class, rising disposable incomes, and a growing appetite for international quality goods and services among Indian consumers. The Indian market, however, continues to face significant challenges to growth in the form of inadequate quality retail real estate space, restrictive legislation policies, and infrastructure bottlenecks. These challenges tend to impede India's retail story, and restrict the market from attaining its true potential.

Some of the key challenges that retailers face in India include:

•Real estate rentals,

•Real estate quality,

•Slowing consumerism,

•MRP constraints, and

•Policy issues

Policy issues: FDI norms
The erstwhile Indian government's move to open the country's retail sector to foreign supermarkets has been anticipated for some time, and is regarded by market experts as being crucial to re-launching the country's flagging economy. Supporters of the new policy say the entry of international supermarket retailers will help bring down soaring prices, make the retail sector more competitive, and help modernize its ageing infrastructure and distribution systems. Small and medium sized family-run retailers will survive, they say, as they offer a valuable local service that large supermarkets are unsuited to provide.

According to the Confederation of Indian Industry (CII), such a move would likely increase the income of producers across sectors by about US$ 35–45 billion per year, creating approximately 3–4 million jobs with retail chains, and about 4–6 million jobs in the logistics sector, other than creating a demand for more contract labor in distribution and repackaging centers and functions such as housekeeping and security.

According to a recent announcement made by the Ministry of Commerce and Industry, the new government has decided to disallow FDI in multi-brand retail in the country, which would have led to increased consumer demand, catalyzing greater investment opportunities in organized retail in India. As FDI in multi -brand retail encompasses big ticket investments; individual as well as institutional investors would have been more willing to make commitments towards the retail sector in India. The key beneficiaries of such investment inflows would have been cities with population bases of one million or more, with phased benefits percolating to other locations as well. Vacancy levels would have dropped as hypermarket chains would have been likely to occupy large spaces across cities. The challenges facing the Indian organized retail sector are there but it will have to be dealt with and only then this sector can prosper.

2. SUPPLY CHAIN MANAGEMENT IN RETAILING

Growth and survival in today's retail world totally depends on sustainable competitive advantage. And developing a sustainable competitive advantage requires serious commitment and a customer orientation attitude. On the basis of market research and intelligence, retailers have to understand customer needs as well as consumer buying behavior so that they are equipped to delight their customers. Customer delight is possible if and only if retailers are able to satisfy specific and special needs with a personal touch – by offering excellent price/quality ratio. Moreover, there is a need to share this commitment and attitude with retail partners, such as suppliers, manufacturers and wholesaler. Retailers need to share information with their suppliers relating to customer buying behaviors in an instant and consistent format. Sharing of information needs a foundation of mutual trust and long terms partnership and a vision of one goal – satisfying the customers‘ needs at low cost.

Supply Chain Management or SCM begins with 'bargaining' with suppliers and long-term relationships. Marketing departments analyze customer needs and demands for specific products, which insure the right negotiations with suppliers. Supply management aims at the procurement and purchasing of specific products, based on partnerships with suppliers. Logistics refers to the actual movement or delivery of products. It includes movements of goods into the retail distribution center, movements within the center and movements out of the center and into the retail stores. Operations are the activities involved in converting the products supplied by the supplier into product sold to the retail customer. The main objective and intention behind a smooth SCM operation is to stimulate buying the right things at the right time at the right price – reducing the order cycle and ensuring flexibility. Supply chain management leads to fewer stock outs and to the availability of merchandise and assortments that customer’s want. The retailer should evaluate all the product categories in terms of their respective floor productivity and share in the total sales (a step towards category management). The products with high financial benefits should be taken as the starting point for SCM. There should be a minimum stock level (in terms of SKUs, but all possible SKUs should be present in the store for customers) for these performing categories. The retailer should either aim at a single supplier or at a number lesser than the current for these products. POS information should be communicated instantly to the supplier through EDI. The supplier would then act to deliver the sold quantity in a Quick Response. On the other hand, categories with lower financial benefits should be supported with good stock levels (based on past experiences of sales) so that the retailer does not have to order for the same repeatedly. Moreover, the retailer can also clinch a good bargain for these categories from the supplier by increasing the order quantity and highlighting the fact that market share being low, prices need to be comparatively low too.

The growth momentum is very strong in the Indian retail sector. Both domestic and foreign investors are expected to continue their expansion in this sector in 2013 and beyond. However, they need to be aware that that market is very diverse and complex, and currently the prevailing supply chain represents a major hurdle to establishing effective operations and achieving profitability. Retailers should think that an efficient supply chain will be poised to achieve competitive advantage in this fast-growing market An efficient SCM practices will give lot of advantages on the costing of the product over the rivals. It becomes strength for the retailer in creating distinctive competence in distribution systems at the same time an automated and efficient distribution of goods into its stores, from manufacturers to its fleet of delivery trucks that made daily deliveries to surrounding stores.

In this research paper therefore an attempt has been made to show how supply chain management practices are getting affected by the challenges faced by organized retailors today.

3. LITERATURE REVIEW-

Vidushi Handa and Navneet Grover (2012) in their paper entitled “Retail Sector in India: Issues & Challenges”, studied detailed information about the growth of retailing industry in India. This paper examines how the urban and semi-urban retail markets are witnessing significant growth along with

the role of the Government of India in the industries growth and the need for further reforms.
At the company level, retail in India is facing challenges like product proliferation, high-level of intermediaries, fragmented and large number of retail outlets, suboptimal supply chains and lack of supply chain visibility**.** (Moneylife Beta, 2014).

Aggarwal(2007) stated that to achieve profitable growth over the next few years, supply chains need to be realigned into efficient, agile and adaptable networks. This, in turn would help manage costs, ensure product availability and be highly responsive.

Chetan Ahya (2006) stated that Unavailability of cheap funds for investing in the back end infrastructure for fresh produce, grading, packaging and storing in cold storage is the primary reason for no developments in the retail segment.

In this era of globalization, as the economy changes rapidly, retail sector also transforms from traditional to organized retailing. Efforts have been made in this paper to highlights the present status, challenges and opportunities of the retail sector in India. (Pawan Kumar 2013)

According to KPMG (2010) ,there is a growth in the retail industry and lot of change is happening in the industry. The growth of the changing habits of the consumers coupled with the growing market size in this country will double to $150 billion by 2025. Increasing innovative formats, changing patterns, changing demographics and habits make the fuel for the growth of the organized food retail industry. Though the expectations are high, the real term growth is crippled by the sub-optimal supply chain management caused by low investments Chew et al. (2009) identifies the supplier Retailer relationship in context to the small retailers and look on the issues related to small and medium retailers about their efficiency and adoption of the new technologies.

Rahul Singh and Jeet Singh (2015) in their paper entitled “A Study on the Challenges Arising in the Organised Retailing in India”, this study highlights on the challenges and suggests certain measures to reduce these challenges. The study studies the perception of organized retailers in the Moradabad city regarding the challenges faced for retailers and customers when servicing. The paper concludes that the day is not far away when the fast growth of organized retailing can be possible in India.

Today the retail industry is facing huge problem regarding the wastage and it is because of the inefficient supply chain system. Almost about 20 % of the food produce worth of Rs.10,000 Crore is getting wasted. Unless and until the retailers develop an efficient SCM practices they cannot have access to affordable superior quality food produce at an affordable prices.

The factors like Demand forecasting, data integration, financial flow management, supply-demand matching, collaborative forecasting, information sharing and synchronization of the movement of goods through efficient transport scheduling have to find their way into the food supply chain. The supply chain cost is about 12-50% across product categories and which now the focuses of the retailers to reduce this cost and thus make the product available to the consumer at a very economical price. In fact along with all this there is a huge development in the supply chain innovations, dominance of private labels, infrastructure and the policy amendments, which always creates lot of challenges for the retailers, Viswanadham (2010).

The out of stock situations are very crucial in the proper flow of the Supply chain Practices, Ravi Mathur and Gopal Valecha, *Footfalls*, (2010). The inefficient inventory management is a leading cause for an inefficient supply chain management. Huge cost is invested in the improper inventory and thus huge capital is getting strained in the balance sheets. (Raghav Gupta, Rohit Bhatiani and Pranay Gupta).

4. OBJECTIVES

1) To study the growth aspects of organized retail sector in Indian market.
2) To study the challenges faced by the organized retailors which affects the overall organized retail growth.
3) To identify the variables of retail supply chain which are affected by challenges faced by organized retailors.

5. RESEARCH METHODOLOGY

In the competitive scenario prevailing in the retail industry today in India, each retailer has to acquire strength in his SCM practices. This calls for a close day to day monitoring of the SCM constituents, so that the retailers would be able to achieve success over their rivals. Aim of this paper is to identify the variables of retail supply chain which are affected by challenges faced by organized retailors especially in Mumbai and Navi Mumbai region.

Sources of Data

Primary data is collected from 45 organized retailors especially in Mumbai and Navi Mumbai by the non-probalistic convenience sampling method to identify the challenges faced by retailors. Structured interviews were conducted with the organized retailors to collect the responses. The secondary sources of information required for this paper was collected from journals, books and internet resources and from various Supply chain Management magazines and text. All the sources which are considered to include works in Supply chain Management and on Retailing were considered for data collection

Data collection-

From the literature review, Primary and secondary sources following challenges are being found out which are faced by organized retailors in a region of Mumbai and Navi Mumbai-

The kiranas continue - The very first challenge facing the organized retail industry in India is competition from the unorganized sector. Traditionally retailing has established in India for centuries. It is a low cost structure, mostly owner operated, has negligible real estate and labor costs and little or no taxes to pay. Consumer familiarity that runs from generation to generation is one big advantage for the traditional retailing sector.

On the other hand, organized sector have big expenses to meet and yet have to keep prices low enough to compete with the traditional sector.

Retail not being recognized as an industry in India – lack of recognition as an industry hampers the availability of finance to the existing and new players. this affects growth and expansion plans.

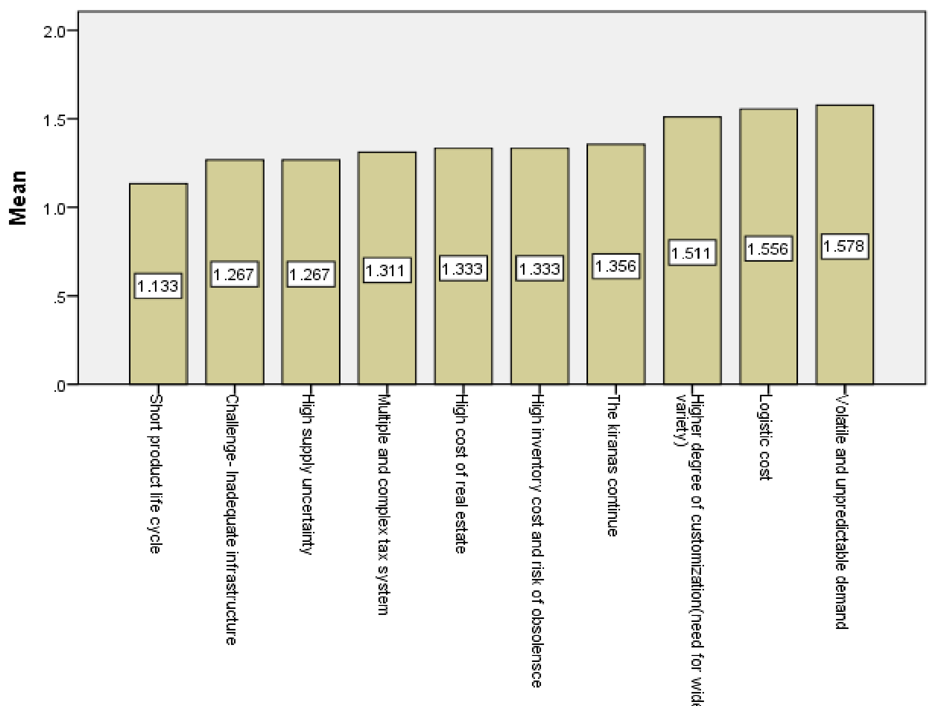
The high costs of real estate – Real estate prices in some cities in India are amongst the highest in the world. The lease or rent of property is one of the major areas of expenditure; a high lease rental reduces the profitability of a project

High stamp duties– In addition to the high cost of real estate the sector also faces very high stamp duties on transfer of property, which varies from state to state (12.5% in Gujarat and 8% in Delhi). The problem is compounded by problems of clear titles to ownership, while at the same time land use conversion is time consuming and complex as is the legal process for settling of property disputes

Lack of adequate infrastructure - Poor roads and the lack of a cold chain infrastructure hampers the development of food and grocery retail in India. The existing supermarkets and foods retailers have to invest a substantial amount of money and time in building a cold chain network.

Multiple and complex taxation system – The sales tax rates vary from state to state, while organized players have to face a multiple point control and system there is considerable sales tax evasion by small stores. In many locations, retailers have to face a multi point octroi with the introduction of value Added Tax (VAT) in 2005.

Other challenges found out are volatile demand, Customisation,Short product life cycle, Inventory cost, Logistic cost ,High supply uncertainty. From data collected of 45 retailors in Mumbai and Navi Mumbai region challenges identified by retailors are as follows-



6. RESEARCH HYPOTHESES

1) H_0-Challenges faced by organized retailors are not associated with supply chain management in terms of stock-out.

H_1-Challenges faced by organized retailors are associated with supply chain management in terms of stock-out.

2) H_0-Challenges faced by organized retailors are not associated with supply chain management in terms of overstock.

H_1-Challenges faced by organized retailors are associated with supply chain management in terms of overstock.

A Chi-square test is being carried out to test the hypotheses for all challenges with level of stock-out and overstocking. Out of all challenges faced by the retailors high cost of real estate challenge is found to be associated for stock-out positions in organized retail and volatile and fluctuating demand challenge is found to be associated with overstocking position in organized retail. The results of the Chi-square test are shown as follows-

Hypothesis 1-

High cost of real estate * Frequency stock out

			Frequency_stock out		Total
			Weekly	Monthly	
High cost of real estate	Yes	Count	18	12	30
		% within High cost of real estate	60.0%	40.0%	100.0%
	No	Count	3	12	15
		% within High cost of real estate	20.0%	80.0%	100.0%
Total		Count	21	24	45
		% within High cost of real estate	46.7%	53.3%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6.429[a]	1	.011		
Continuity Correction[b]	4.922	1	.027		
Likelihood Ratio	6.790	1	.009		
Fisher's Exact Test				.014	.012
Linear-by-Linear Association	6.286	1	.012		
N of Valid Cases	45				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.00.

b. Computed only for a 2x2 table

From the results of the table it is clear that there is association between high cost of real estate and frequency of stock-out in organized retail. As significance value<.05 null hypothesis is rejected and it can be predicted that due to high cost of real estate there may be high frequency of stockout position in organized retail.

Volatile and unpredictable demand * Frequency_overstock Crosstabulation

			Frequency_overstock		Total
			Weekly	Monthly	
Volatile and unpredictable demand	Yes	Count	4	15	19
		% within Volatile and unpredictable demand	21.1%	78.9%	100.0%
	No	Count	16	10	26
		% within Volatile and unpredictable demand	61.5%	38.5%	100.0%
Total		Count	20	25	45
		% within Volatile and unpredictable demand	44.4%	55.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	7.287[a]	1	.007		
Continuity Correction[b]	5.740	1	.017		
Likelihood Ratio	7.623	1	.006		
Fisher's Exact Test				.014	.008
Linear-by-Linear Association	7.126	1	.008		
N of Valid Cases	45				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.44.
b. Computed only for a 2x2 table

From the results of the table it is clear that there is association between volatile and unpredictable demand and frequency of overstock position in organized retail. As significance value<.05 null hypothesis is rejected and it can be predicted that due to volatile and unpredictable demand there may be high frequency of overstock position in organized retail.

Findings and discussion of the results-

Organized retail in India is little over a decade old. It is largely an urban phenomenon and the pace of growth is still slow. And Organized retailors face number of challenges. The High Costs of Real Estate is one of the major challenge that the retailors are facing especially in Mumbai city**.** Real estate prices in cities like Mumbai and Navi Mumbai in India are amongst the highest in the world. The lease or rent of property is one of the major areas of expenditure. A high lease rental reduces the profitability of a project. It is difficult to find suitable properties in central locations for retail, primarily due to fragmented private holdings, infrequent auctioning of large government owned vacant lands and litigation disputes between owners. Because of that the retailors are not finding enough space to store the goods especially those which are fast moving goods and that why there is high frequency of stock out due to high cost of real estate. Similarly Volatile and unpredictable demand is also one of the major challenge. Due to changing needs and preferences of the customers retailors have to stock in large quantity but the demand from the customer is highly volatile and unpredictable due to innovations and large number of competitors stock may become surplus or obsolete and that's why it is the major cause behind high frequency of overstocking. Thus retail supply chain management is highly affected by challenges faced by organised retailors in India

Suggestions for overcome the challenges-

Industry status should be given to improve retail development, to facilitate organized financing and to establish insurance norms. Infrastructure and investment in supply chain should be enacted. Comprehensive legislation should be drafted and enacted with futuristic approach. Laws, acts, licensing restrictions, differential taxes, stamp duties, should be simplified and put in proper place so that it would not hinder growth of retail sector. The current multipoint taxation should be rationalized. The government should introduce a uniform taxation system across the country to relax the law that hinders interstate flows of goods.

- To set clear target for giant retailers for procurement.
- Enforce uniform quality standards.
- Setup a regulatory body for the governing the operations of retail sector.

Conclusion – Retailing provides an important link between producer and consumer in modern economy. Retail in India is most dynamic industry and represents a huge opportunity for domestic and international retailers. Modern retailing is not a problem to traditional stores as most of the consumers said that they never stopped visiting kirana stores. They strongly agreed on coexistence of both is required. Their frequency of going to kirana store is reduced. Modern retailing has miles to go in India. The growth of modern formats has been much slower in India as compared to other countries and the development of this sector is depends on the presence of regulatory and structural constraints. Government has to take care about the existence of organized retail stores in India and

they have to take measures to overcome the challenges. Then the fast growth of organized retailing can be possible in India.
There is very huge potential for the growth of organized Retailing in India. By following some of the strategies it can rise tremendously and can reach each and every nock and corner. Open communication should be established between functional departments. A balance should be maintained between brand building and promotion. Non-marketing factors like gas prices, weather etc. should be avoided and new schemes should always be launched.

The Retail Industry in India has come forth as one of the most dynamic and fast paced industries with several players entering the market. But all of them have not yet tasted success because of the heavy initial investments that are required to break even with other companies and compete with them. The India Retail Industry is gradually inching its way towards becoming the next boom industry. References-

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7. CONCLUSION

There is very huge potential for the growth of organized Retailing in India Retailing provides an important link between producer and consumer in modern economy. Retail in India is most dynamic industry and represents a huge opportunity for domestic and international retailers. The growth of modern formats has been much slower in India as compared to other countries and the development of this sector is depends on the presence of regulatory and structural constraints. Government has to take care about the existence of organized retail stores in India and they have to take measures to overcome the challenges. Then the fast growth of organized retailing can be possible in India. By following some of the strategies it can rise tremendously and can reach each and every nock and corner. Open communication should be established between functional departments. Strategic supply chain management practices should be introduced to tackle with challenges. Technology also plays very important role to overcome the challenges so retailors have to invest for technological advancement.

The Retail Industry in India has come forth as one of the most dynamic and fast paced industries with several players entering the market. But all of them have not yet tasted success because of the heavy initial investments that are required to break even with other companies and compete with them. The India Retail Industry is gradually inching its way towards becoming the next boom industry.

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NEED FOR TRANSFORMATIONAL CHANGE IN INDIAN MANAGEMENT EDUCATION

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ABSTRACT

The wind of change due to globalization has brought transformation in all sectors of society and economy. Education, more particularly management education is no escape of it. Knowledge and skills have become buzzwords in the present scenario. As the management education is most important prime mover in the better development of economy, the quality in management education is more pronounced now than ever before. It is the world of information technology, especially the present changing, globalizing, competitive world, that requires human resource equipped with the latest knowledge, skills attitudes and moral qualities to operate various in domains. Quality institutions, like the IIMs, a number of universities, and few other colleges and B- schools the world over send out such competent human resource to run the world of work. And for this purpose excellent knowledge imparting is required. Are B-schools continuously striving to make management education global context specific. This paper reviews a number of issues, especially from the perspective of the mushrooming of Management Institutes and their knowledge imparting process(talent development process) which is unable to keep pace with the blistering growth rate of transformation in the corporate world.The purpose is to stimulate further debate so that people involved in this sector become more aware of the complexity of globalization for future manager sand some action is being taken by each of them.

1. INTRODUCTION

Management education in India is barely 40 years old and in these years the phenomenal increase in its importance cannot be undermined. Realizing the significance of organizational and managerial skills a heavy emphasis was laid to develop managerial manpower in the country. The first institute to offer management education in India was the Indian Institute of Social Welfare and Business Management, Calcutta, in 1954. Andhra University was the first university in the country to start a full time Masters in Business Administration in 1957. The beginning was marked with a lot of growth, expansion and consolidations. There were few institutes all over the country, offering excellent education but after the gates of globalization and liberalization opened there was a sudden mushrooming of the business schools all over the country.

This never before phenomenon which is so very different, exciting and yet bewildering has occurred so dramatically & instantaneously that it has brought a literal revolution in the **Indian**

Management Education System (IMES) and has left most of us gasping for breadth. *"Change or else perish "* seems to have become the mantra for tomorrow. Only few institutes stand out as islands of excellence in an ocean of mediocrity today. This state now needs transformation because we have entered an era, where there has been tremendous expansion of knowledge and information technology, the world has shrunk as a "Global village" and an age of e-"life " some thing like e-commerce, e-business has set in.

A hundred years ago, academic management education hardly existed anywhere. Towards the end of the twentieth century, however the question of how to develop managerial skills so that business can meet new challenges and countries improve their competitiveness has emerged as one of the most important topics of the international educational debate. This shift of emphasis has been accompanied by the strong growth of management education with in educational systems. In many countries this rise has been especially potent from the mid 1970s.In about 1990 for instance one quarter of all under graduate students in the U.S. and quarter of all postgraduates studied business. Thirty-five years ago only one-eighth of all undergraduate students studied business (Handy et al. 1987:8;Mckenna 1989:37). Similarly in Britain the number of different programs has increased from twenty-six in 1985 to about hundred in 1994(Amdam 1994). In eastern Europe, the fall of communism, which was accompanied by the introduction of a market economy, has widened the geographical area in which the development of organizations for management education and training is given priority (Woodall 1994).In China too, there has been ,since the 1980s,a new interest in developing courses and programs in Management Education. Some of these programs have been developed in collaboration with foreign business schools and from 1991 the government has allowed even universities to offer MBA programs (Borgonjon and Vanhonacker 1994). This global expansion of the management education has been caused by various changes. The expansion of management education is linked to the transformation of the higher education from an elite system to a system of mass education. Of Course there are still some business schools in existence which may be described as elite institutions, for example, Harvard Business School in the U.S., IIM Ahemdabad in India the London Business school in Britain, INSEAD in France, and IMD in Switzerland. However, the expansion of management education primarily reflects a broadening of the educational system in management to include larger groups of people.

Concerning the globalization theme, first of all, trade is an increasing share of the new economy which means more intense competitive structures. As a consequence firms have to innovate on a constant rate in order to be successful. Globalization of the economy has led to more foreign firms entering India and traditional Indian firms increasingly perceiving the need for professional managers to lead and manage their Indian and foreign firms. As Businesses are becoming global; talent is scarce and dispersed; new knowledge is created all the time. To capture the 'globality' of business, to tap faculty talent, and to continuously draw on new knowledge and practice, an innovative management program is required. Economic liberalization, de-regulation, and privatization policies of the Govt. of India have led to dismantling of barriers, global trade and capital flow, internationalization of production process, and cross-border mergers and takeovers. Today's corporate managers have to work in this gobalized environment with entirely new competitive landscape. In order to meet demands of the dynamic business environment, managers need to possess appropriate skills and capabilities for developing competitive strategies. Management education, therefore, cannot afford to remain insensitive to changes in the role the managers have to play. The focus of the management education today is largely on producing managers for a globalized economy and generating tailor made packages for meeting the pre-requisites of survival in the ultra-dynamic competitive environment. Over the past few years, management education in India has been undergoing radical changes to meet the corporate demands.

There could not have been a better time for all of us to gather and design for Business Education in an integrated world than present one. With the passing of every day of the new millennium, the challenge to reshape us increases manifold times. The rapid growth of mergers, acquisitions, joint ventures, and the impact of globalization and liberalization has totally changed the type of job today's managers are required to do and hence the characteristics they must possess to perform all these jobs effectively. Today, the job of manager is not static in nature, but dynamic. He may be required to work with people of different culture, different origin, different way of life and political thinking. This needs a lot of flexibility, team working, and faster decision-making. The emphasis has to shift from “learning the skill” to “Learning to learn”.

New Industry Structure:

The industry structure saw major changes during the onset of the present century. There was a decline of traditional industries, and the rise of the new ones-often based on new sources of energy and their utilizations- thus increasing industrial concentration and the upsurge of giant transnational companies operating in a number of areas. The domination of many industries by a small number of very large firms operating on a transnational scale led to the development of new methods of market management and control. They adopted a face of organization entirely different from that of the single-industry enterprises thus requiring new and innovative managerial skills. The new concepts of liberalization, privatization and globalization have emerged, collectively giving way to World Trade Organization (WTO).
It resulted in the development of need of more competent and efficient management. This growing demand has caused the mushrooming of various management institutions. In such an era of cutthroat competition, the values and the Qualities are constantly at stake, thus endangering human destitution.
The new Business environment of present century forces us to fundamentally change our management education system, process & teaching techniques. We also need to understand when Internet, IT represent as *information-revolution, then* how management education is going to respond?
Clearly, what toady B- schools lack in pedigree they try to make up through use of IT with blend of aggression & Indianness. Being simulators of business, management education needs to lay a lot of emphasis on entrepreneurship, importance of IT. It has to understand IT as, a part of business-world & hence have to act accordingly. It needs to teach students to be positive, aggressive & resilient.

Need of Management Education

The world seems to be getting incorporated. ‘World Inc.’ is soon going to be a dream come true. People have explored new avenues of business in almost every walk of life. As a result, corporate houses are making their presence felt everywhere. Managing these business houses amongst stiff competition is no child's play. The managers managing these shows need a specific training. Hence, the need of Mnagement Education(ME) and Management Education Institutions(MEIs) who can teach and inculcate management as a discipline in the personality of an individual.

To meet the challenges posed by the present millenium, the management education in India need to fulfill the following requirements and related skills on the part of their recipients:

- Raising product and service quality to global levels in each price segment.
- Leadership skills for creating an organizational culture leading to innovation in all aspects and levels.
- Development of ability to take decision about diversification or staying focused with all related matters.
- Export strategy skills to match India's resources and capabilities with global market opportunities.
- International business strategy concepts and skills to convert Indian firms into International firms.
- Development of analytical skills to identify unviable businesses, plants and products for divestment.
- Maximization of output and capital output ratio.
- Meeting customer expectations ahead of shareholders, employees and promoters.
- Skill of interacting with local community and become their partner in development processes.
- Developing and offering training modules for various segments of society for keeping them updated with necessary skills to face challenges of dynamic environment.

To effectively meet the above requirements, the Indian management education system has to focus on the following concepts and develop a teaching methodology, which suits best for achieving them:

a) Internationalization of the curriculum, clearly emphasizing that there exists no local market and the management graduates have to operate in real global market.
b) Readiness to frequent changes for maintaining a competitive profile assuming that there are no permanent markets, products processes, practices and systems.
c) Increased impetus on entrepreneurship to make graduates job providers and not the job seekers for solving the high density and unemployment problem of this sub-continent.

The Present Scenario:

The discussion about the management institutes reminds us of mushrooming of management institutions around the country. If the first four decades after Indian independence belonged to medicine, engineering and civil services, the fifth decade has gone out to management hands down. Liberalization triggered the opening of a "Pandora's box" and we saw the whole educational map of India being littered with management institutions in a period of just 10 years, as it proved to be an opportunity for many to make some quick money. The objective is neither to curse the darkness nor to question the rationale of AICTE, but to bring to light this dubious fact that has lowered the repute of this fine profession by diluting the quality of the process and the product and has also added to the increasing unemployment.

Management Education, at its center-stage needs to bring reform in its modus operandi. IT & allied technologies have the potential to drastically change the teaching & learning paradigm. Management institutions being full of rich contents, expertise has the opportunity to enhance their knowledge management concepts with the introduction of IT. But it greatly require the change in organizational structure & a aptitude for reform in curriculum content & structure, imbibing new technology, so as to produce "Knowledge- managers ".

Global competition is changing the relationship between management education and business. The efforts for building leadership pipelines in organizations have intensified in the last five to six years (Conger & Fulmer 2002). Continuous changes in both technology and economic systems, along with the speed of change, require executives to be engaged in a constant learning process. The globalization of the 1990s has had a profound impact on every facet of the business world. Companies in every nation can now reach customers around the world and cut operation costs through global scales of production and distribution. Today, Gillette Co. is manufacturing razors in Russia, Fidelity Investment is selling its funds in Germany, and Citicorp is serving millions of customers from Asia to America. Meanwhile, international markets undergo constant change, intense competition, and heightened customer expectation, which make it increasingly difficult for a company to gain and maintain its competitive edge. Managers must therefore take on a broader range of responsibilities. A successful manager will monitor the competitive landscape and decide if his organization has the strategies, structures, and personnel to be viable on a global level. In spite of the different approaches he may take, one thing remains constant--a manager must instill a commitment to globalization throughout his company. Simple exposure to an expanded economy does not make a corporation "international." Rather, there needs to be a widespread adjustment of attitude, as well as sweeping changes in operation, to ensure the company's profitability. And to achieve this, it is critical to match the talents and experience of each employee to the task best suited to him. For instance, a salesman who excels in the United States may not possess the cultural knowledge needed to succeed in China or Brazil. Different cultures, laws, and market conditions make international operation a complicated process of system engineering. A manager must develop working teams that have the skills necessary to interact with people throughout the world. It is therefore the duty of the manager to establish which strategies work best and to follow up with appropriate policies in international marketing, finance, and human resource.

This is an ongoing task that requires continual monitoring of new advances in the business world. A manager must shape his company into a flexible organization that can learn from and respond to fast-changing environments. Another critical aspect of success is the proper placement of technological developments within the corporation. With the advent of IT, there has been a drastic change in the way the businesses being conducted. The computers and Internet have created a networked world. The use of IT in business demands a new mindset and a totally new set of capabilities. The management education needs to break itself from the traditional rules and re-look at the enabling role of IT. For example: Today at GE, Internet has redefined its supply chain process. GE's trading process network allows suppliers to download supply request proposals, view diagrams of parts specification and communicate with GE managers to plan supplies chain process. Technology enables a manager to direct and control operations in a multitude of business environments. And with the growing availability of technology to all competitors, a manager must properly implement technological initiatives to give his company a market advantage. In a world fraught with intense competition, ideas are the ultimate tool of a successful corporation. In order to be recognized and chosen by customers, a company must be both creative and unique. A manager's responsibility thus includes stimulating new ideas and innovations that will push the company forward in the marketplace.

In the field of finance, globalization compels managers to make decisions in the shadow of uncertainty. Numerous forces affect international capital markets. As the markets become more and more integrated, changes in one region will initiate chain reactions that can eventually affect all others. One such example is the Asian currency crisis of 1997, which is still affecting the world's economy today. However, as the world moves toward common standards of financial governance and market valuation, new opportunities have arisen for international financial operations. Financial managers must therefore look for innovative ways to manage risk.
Tackling the global economy is a task every manager must be prepared to meet. In addition to knowledge of international business, he must have such skills as leadership, communication and organization, as well as the ability to guide his company through any form of change. So it is a challenge for management education institutes to equip the students with cutting-edge business knowledge and skills. In addition, the B-school's international environment should grant first-hand exposure to how people of different cultures think, act, and communicate. Acquiring these crucial skills is the key to any future that involves globalization.

No MBA program can be truly exceptional unless it fulfills three crucial criteria. First, it must address international issues that will prepare students for the challenges of working in a global economy. Second it must pursue constant innovation and improvement in its business education. Lastly, it must combine theoretical training with practical business skills, thereby allowing students to keep abreast of current trends and to master every nuance of management.

There have been serious criticisms about the current management education pattern, both in US and in Europe. Mintzberg has been one of those who argued for significant changes. Some of the major concerns and the manner in which they are being addressed are dealt with in this section.
Mintzberg stated in his book that MBA prepared "people to manage nothing". Synthesis, not analysis is the very essence of management. Mintzberg finds fault with the emphasis that many MBA programmes place on frenetic case studies, which encourage people to come up with rapid answers based on meagre data. This has lead to the question "are business schools teaching the right things?" Today, business schools face more competition and more criticism about the quality of their work, than they have ever done before. This is leading to fundamental changes in the structure of the business school market and perhaps in what schools teach and how they teach it. In the US, about 25% of all masters degrees are MBAs. Business schools need to change their perception that the enhancements of their student's careers are measured mostly in terms of salary.

(Kellogg focused on customized programmes, made students a priority and preferred teamwork. Kellogg has a stable model and it continuously changes its core curriculum. The current downturn has lead to a shake out of weaker and less established providers, but in the long term, executive education will remain a lucrative market. Good business schools are continuously innovating. Oxford gets back its erstwhile students while at work, for interaction with faculty for short periods. Many have admired this model. MIT has announced a major change in the Sloan Fellows Programme by giving greater emphasis on technology, innovation and entrepreneurship.

Minimum requirement for this programme is ten years of work experience. The programme will be a flexible one, with three months stay and the remaining spread over a longer period. On the other hand, Goizueta Business School, at Emory University in Atlanta increased the University – Business interaction through field trips and client interactions. Through this model, it has been able to react in a very practical way to the shrunken job market. Goizueta Business School helped the students by being more flexible in choosing where, and in what field, they work.

INSEAD responded to the demand by pricing its Executive MBA at a lower level. It also started a new campus at Singapore. INSEAD began as an independent school with corporate help with strong focus on teaching. In the 1990s, it began devoting more time to research and putting more emphasis on research when professors come up for tenure. 65% of the revenue of INSEAD came from executive education programmes with the market in both Europe and America shifting away from open programmes towards custom designed ones. INSEAD is building a partnership with Wharton and sending faculty members to American corporate sites.)

The intense competition, coupled with the changing market, has forced most business schools to look at cooperation among the schools themselves. Business school – business school partnerships, and business school – industry partnerships are increasing. MIT and BP have started a cooperation project, with MIT providing the leadership inputs. Top business schools are specializing and customizing their programmes and curricula; Different business schools have different approaches for giving a new thrust for management education. Some more innovative approaches to management education are discussed here. As technology, globalization and the post New Economy are changing the paradigms of business, business graduates coming out today must be critical thinkers on an international scale in order to make insightful decisions across multiple disciplines. MBA at McGill has taken a new direction to enhance the educational experience. It draws on strengths of the existing programs, provides a strong international perspective, focuses on interactive teamwork and an integrated approach to study. The approach attempts to maximize interaction and critical thinking in the classroom. It considers true leadership "as engaging, not heroic". According to Mintzberg: "The attainment of knowledge and the enhancement of competencies are important, but we wanted our program to go beyond these, to help people become not just more effective managers but wiser human beings – more thoughtful, more worldly, more engaging". The thrust of MBA is called E3: Enhancing the Educational Experience.

Leicester Business School redesigned its MBA in 2003. The uniqueness of the programme is that it links the teaching and research strengths of the Business Schools with the business experience of participants. The MBA commences with an induction programme covering the fundamentals of management education. This levelling programme will facilitate participants from both business and non-business backgrounds to attain equivalence in their knowledge base. The MBA will lead with core modules that broaden and critically examine key business and management of fundamentals. The integration of the core modules is achieved through a module called "Strategy in a complex environment". The integration is achieved by pulling together the strategic management skills within the core modules, equipping participants with the ability to think conceptually and holistically. One of the innovative elements of this MBA is the flexible approach to learning that allows students to switch between the modes of study. The MBA students have to undertake either a full-length research based on dissertation or a shorter in-company problem that could demonstrate real life problem-solving capabilities.

2. WHAT THEY TEACH AND HOW THEY TEACH

The major features that distinguish top and ordinary business schools are “what they teach” and “how they teach”. Considerable attention is given to themes, contents and pedagogy.

Although MBA rankings have forced business schools to pay closer attention to what its students want, Kellogg is still the standard–setter. Kellogg has devoted time to deepen its links with potential employers. Secondly, Kellogg continuously changes its core curriculum. The new system allows students to specialize sooner, making them more useful to employers. In the MBA they have moved up the courses on leadership and ethics to the fore. A class on “Leadership in times of crisis” once optional, is now mandatory. And there is a new core course on “Business in its social Environment”. Given the striking ethical failures of some recent corporate leaders, business schools are making a big deal of their improved offerings on leadership and ethics. Business schools are focusing on promoting ethical leadership. Columbia aspires to discuss ethics in every course, rather than teach ethics separately. University of Maryland’s’ business school now takes students to visit white–collar criminals in prison.

(There has been focus on both what they teach and how they teach. Innovative designs and innovative delivery methods are the order of the day. University of Maryland’s R.H Smith School of business has been using a minimum-security facility as a training ground for its MBAs. The program involves a visit to the prison and speaking to the executives about the ways in which deadlines and other pressures within companies can spawn ethical lapses. The objective of a programme like this is stated as: “We want executives to have a look at what can go wrong, and if and when that happens, what that would mean and where you would end up if you fall into various traps”. To dramatize these traps, the programme organizers use role-playing exercises in which participants can ‘experience’ what punitive reaction to such ethical lapses is like. The topics covered include crisis communications coaching, instruction in the effects of corporate incentives on ethics, and social responsibility lessons.)

The innovations in content delivery have been on themes that cannot be learned in a class. Through pure instruction, Harvard Business School developed a new way of teaching negotiations. The programme is designed with a broad objective of learning to understand the thought processes involved in negotiation, to compare rational and intuitive decision-making strategies, and to identify common mistakes made by even the most experienced professionals. The programme draws on some of the most advanced concepts from the emerging areas of behavioral economics, behavioral decision research and behavioral finance. Negotiating takes many forms. Auctions are becoming increasingly common. Coursework on negotiations focuses on analysis of case studies and on simulations that give participants a chance to roll up their metaphorical sleeves and put themselves to the test. The design is to eliminate the commonly heard complaint: ”I have heard some interesting things, but I couldn’t apply them once I got back to work”.

Kellogg has a Dispute Resolution Research Centre that teaches managers to become better negotiators. These are for both MBAs and for executives. Here the approach is different. The programme has a heavy emphasis on simulations, which start out as simple one-on-one negotiations and gradually become more complex. Emotionless style of negotiating, or one that seeks resolution through encouragement and positive reinforcement usually seems more effective than one that relies on threats and bullying.

Apart from ethics and negotiations the themes that used a different approach have been leadership and interpersonal skills. Ashridge Management College has been focusing on interpersonal skills. Ashridge mostly focuses on understanding their own strengths and weaknesses and give suggestions on how to strengthen their skills. Emotional intelligence approach is becoming more popular. Wharton used mountaineering in real life to teach principles of leadership. For some of the courses Judge Institute of Management has joined hands with MIT. Richard Ivey School of Management considers that organizations need leaders to be able to assess situations that are frequently complex and seldom identical to past situations. Hence leaders must recognize patterns without assuming that a situation is identical to one they have encountered before.

At Indian Institute of Planning and Management (IIPM) Classes in French and read, write & speak French in just few weeks are run regularly They conduct the best courses for French, Spanish, public speaking & personality development in India
Business Schools across the world have introduced themes that can make the managers re-examine their own frames of reference. Babson College has introduced a course on "history of management thinking" that teaches managers not to think too much of themselves. Another theme that is receiving close attention is globalization. Fuqua School of Business at Duke University joined hands with business school at Seoul National University, for exposing students to the realities of globalization.

On the whole, business schools are bringing together various bundles of experiences, situations and contexts including cultural sensitivities to bring management education closer to the practice of management.

The special issue on management education published by the economic times in 1986.Comprised of articles written by management experts. Among these there was an article by Howard Baumgartel who was associated with IIMC, had carefully observed the development of management education in India and conducted several studies on the changes in management education in this country. He made the following observations.

- Management education institutions proliferated in India between in 1960 and 1980.Most management graduates have demonstrated good success.
- Management schools are well managed. Thus lending some credibility to management education.
- Positive changes have been observed in the areas of business practice though some negative changes are also to be observed in organizational climate.
- As a result of the impact of management education and MBAs, free and open communication among managers has increased. Innovation also have gone up.

- Mananagement education is doing a great a job by selecting a bright students and preparing them for business.

Some of the weaknesses pointed out by him were:

- Many faculties are seen as insufficiently in contact with the realities of business.
- Management education institutions have failed in working with business and introducing change and innovation.
- Graduates have unrealistic aspirations and do too much of job-hopping.
- The training programme does not contain sufficient foreign training material.

The curriculum is specially oriented to serve the large private sector and neglect social sectors.
The study of Earl F. Ch For, it rates the country's B-schools on their ability to grow, and provide the managerial expertise that your company needs. That was the mandate for the pioneering survey of management institutes, commissioned by BT to the Consortium For Strategic Management & Organisation Development (COSMODE), the Hyderabad-based organisation design and strategic management consultancy. The result: India's Best B-Schools, 1998 the first comprehensive and rigorously numbers-based as well as multiple-perspective study in the country, using a methodology specially designed after six months of research and consultations for identifying the key parameters of quality. Crucially, instead of adopting a uni dimensional approach, the study ranks the B-schools on the basis of 360-degree feedback: from customers (a.k.a corporate recruiters), students, and teachers, and marries these perceptions to hard information on facilities, course-content, and placement-ratios to arrive at the final ratings. From auditing the talent-quotient of teachers to evaluating the infrastructure, from gauging the perception of practising managers about their alumni to checking the satisfaction-levels of corporates, India's Best B-Schools, tells us, and tomorrow's MBAs, who's leading and who's lagging in the race to become the country's finest management institute.

Extending the cut-off to 500 -- 50 per cent at the graduate-level, incidentally, is a pre-requisite to admission in all management institutes. By these standards, there are just 10 A-class and few B-class schools in the country. With a few good, a few more mediocre, and many indifferent representatives, the universe of the B-schools does not adhere to the traditional bell-curve distribution. With scores of less than 400 (actually, between 364 and 215), 29 schools don't really make the grade. At a more conjectural and secondary level, globalization is affecting all of the social, political and economic structures and processes that emerge from this global restructuring. One critical issue that emerges from all of these restructuring processes is the central role of knowledge, education and learning for the success of the Global Information Society (GIS) and global information economy. Knowledge is becoming an increasingly important factor of production.

Globalization compels managers to make decisions in the shadow of uncertainty. Numerous forces affect international capital markets. As the markets become more and more integrated, changes in one region will initiate chain reactions that can eventually affect all others. Most Infosys employees are always on the move. They have to go where their projects take them. Thus the global challenges exerted pressure on management schools to change. Growing globalization of national economies through trade and investment made it even more vital to further the understanding of processes and consequences of internationalization. It was certain that institutions lacking a vigorous, systematic and coherent strategy for internationalization of existing management curricula, putting all concerned at a serious disadvantage in the years to come. Global companies increasingly recognize the need to develop leaders who are equally comfortable and effective working anywhere in the world (Miller 1998). It was becoming clear that as one of the most market oriented sectors, business schools have the opportunity to participate in the transformation of higher education. Business schools started becoming initiators of change.

Eat, former dean of UCLA, who after a review of about 200 articles, identified following complaints about management education institutions:

- They emphasize wrong models.
- They produce technical staff specialists rather than leaders.
- They are quantitative, too theoretical and too removed from practical problems.
- They ignore important human communication and organizational skills.
- Inadequate attention is given to entrepreneurship and technology.
- The education neglects important International concerns.
- They fail to deal with managerial obsolescence.
- Too many Business Schools are producing too many MBAs.
- MBAs salaries are too high.
- The degree is not worth the cost.
- They encourage some undesirable personalities characteristics, disloyalty, job hopping and unrealistic expectations.

Revisiting the Concerns Twenty Years After

Revisiting the issue of management education, I think some of the concerns remain the same. We have progressed in many ways, particularly, in the last decade. The credit goes too large no: of consulting firms entering in to the recruitment area. Also, the preparation of management schools in terms of helping MBAs to go with an attitude to learn from the client and service the customer, has taken place to a large degree. It is difficult for an MBA to survive beyond a point if he is not accessing the database of the employing organization, creating new databases and trying to understand the client and also soling the problems. If S.K. Bhattacharya were to be alive to say, perhaps, he would have been the first to point out the change in the MBAs; at least, he would have acknowledged the fact that the current day MBAs entering the consulting field are a good deal different from those in the eighties. This, however, is my guess. The curriculum has not changed but the requirements of the agencies, summer placements, utilization of the MBAs by McKinsey and the big five, have done the job .The increased number of consultants with MBA degrees, at a young age, speaks of the changing trend.

We have a number of institutions starting business education at +2 level as suggested by Parameswaran, but it is still to reach the high school level and, not to speak of, the middle school level as envisaged by Fr.McGrath. Baumgartel's optimism stands supported, as many are recruiting MBAs, as they believe that an MBA can bring professionalism, systems, and can make a very positive difference to the effective functioning of an organization.

The thirteen defects in MBA education observed by Cheat remain substantially reduced. However, they may not have been eliminated. The number of educational institutions offering MBA programs or PGDMs is on the increase and the quality, perhaps, is as mixed as in the past. Qualified and experienced teachers are in shortage and the tendency of practicing managers to teach has gone up tremendously as most institutions bring practical experiences to the classroom. So it should incorporate contemporary developments in technology, management sytems, behavior processes and conceptual thinking.

3. CHALLENGES FOR MANAGERS

Tackling the global economy is a task every manager must be prepared to meet. In addition to knowledge of international business, he must have such skills as leadership, communication and organization, as well as the ability to guide his company through any form of change. If one is a successful Indian executive today, one has to be a global manager. There are no local challenges anymore; every challenge is a global challenge. Customers and innovations are global. Last Diwali, there were Chinese crackers available. The core set of things that have made anybody successful remains constant worldwide. The core principles being the ability to meet the customers' needs. The cultural orientation is also important, for example in Tokyo, the card exchanging ceremony is called Mishi, the Mishi is the business card. It is an elaborate 7-minute process, where one has to bend at a degree angle, read everything on the card, where as in other places, one exchange cards casually. These are only nuances, unlike the core values. If the core is fine, business will take place. The competition today for a college student is not from another college in the same city, but from a student from another country. Today companies are thinking globally, pondering where to setup their next center, where they would get nice talent. The years demand on the global managers has changed over the last few years. They are:

First The Time Management: If one is working with clients from Australia and the west at the other end, he needs to cope with time and work through different time zones.
The second in terms of context of the cultural perspective. Culture is what comes down finally in the nuncanes that reflect in the day-to-day business practices. The Asian culture is multiactive where as the western culture is linear so the thinking is different.

The third area is business practices. A global manager has to behave according to the norms and customs of different countries. In a team, there are people from all over the world. He has to form a standard global compliance, which is a challenge for the global manager; the global responsibility has to be clear.

Interpersonal effectiveness is the key. Global terms are not those comprising India and other countries, but who understand what is happening in different countries, for example, understanding the economic situation, the law and order of the country, the geo-political climate of the country. Working with a Brit, Japanese and American come through experience.

A clear global career path: Exposes managers to different level of competencies. Give them different assignments to work on. Global manager or leader is a little different from an international experience. Intellectually we are pretty close, but there is a gap in personal effectiveness. When Motorola entered China, they did a lot of research to understand the country, heroes and the folklore of the country; they derived certain leadership traits, and chose leaders who could relate to those traits. In the second year itself, they made a billion dollars, which is one of the most successful entries in the year 1993.Today's demand are far more different and complex, so one has to work on personal effectiveness.

HOW IS GLOBAL TALENT NURTURED IN WIPRO?

Mr.Ranjan of Wipro states that "we have 8 leadership qualities. Six years ago, we had only 7 and recently, we have added the 8th one i.e global thinking and acting. It means how to deal with customers in different countries, team members, who belong to different nationalities. The whole idea is to understand the nuances of the other person; we measure it with a 360 degree appraisal ,and every body gets live feedback on a 5 point rating scale, in terms of vocabulary, interaction, sensitivity, comfort levels ,etc, and we have developmental plans for those who lack on this scale."

The present millennium is bringing with it a whole host of apprehensions and bewildering circumstances. The dawn of January 1, 2000 would have remained just another event of history but, the changes that have occurred at an exponential rate in the nanosecond nineties, having transformed the whole way of our living, thinking and working, have made it a much talked about date. These occurrences have obviously cast significant influence on management education, directly affecting the corporate world, which is the world of today and of tomorrow.

Today's world is market driven and education is no exception to this fact. Customer is the king now and any indifference towards his expectations shall prove to be any organization's suicidal mistake. The customers of management education- the students, the industry and the society are keen to get the best-fit global managers. They want the best and are very cautious before making the final choice. And thus it opens opportunities for corporates as well.

Conclusion and Recommendations:

Management Education Institutions form an important link in our society. It is intelligence churning factor. It moulds, trains, builds, the young mind to achieve global competitiveness. Further global management education is a highly contested market. Top US Universities have been able to maintain the lead by combining theory and practice through research. Internationalization of business has forced the top business schools to develop executives with a global orientation. As the extent of internationalization increases, management education will have to further evolve. Every executive needs to have a global mindset, even if he does not have a global operational agenda, as competition could come from anywhere and in any form. The business value chain could be disaggregated and integrated in many ways and advances in IT are inducing these changes to occur rapidly. The dilemma of outsourcing highlights this dichotomy.

The main learning that we could have is that management education should induce acquisition of a portfolio of competencies. Industry-business school relationship needs to evolve further, otherwise business schools will get isolated from the learning loop.

Management Education Institutes need to give their students extensive exposure through training and development and need to build their multiple skills. They need to focus on core competency building, need to make leaders out of managers and then only those leaders can make their organization a high performing one.

Management education being a professional education requires exhaustive practical training to suffice the theoretical concepts learnt in the classroom. To cater to this need, summer training (ST), on-job-training (OJT), Projects, Industrial visits have all been introduced in the curriculum of most of the management institutions, which if carried out in the right way, can surely prove to be potent tools in building a complete corporate personality out of an individual.

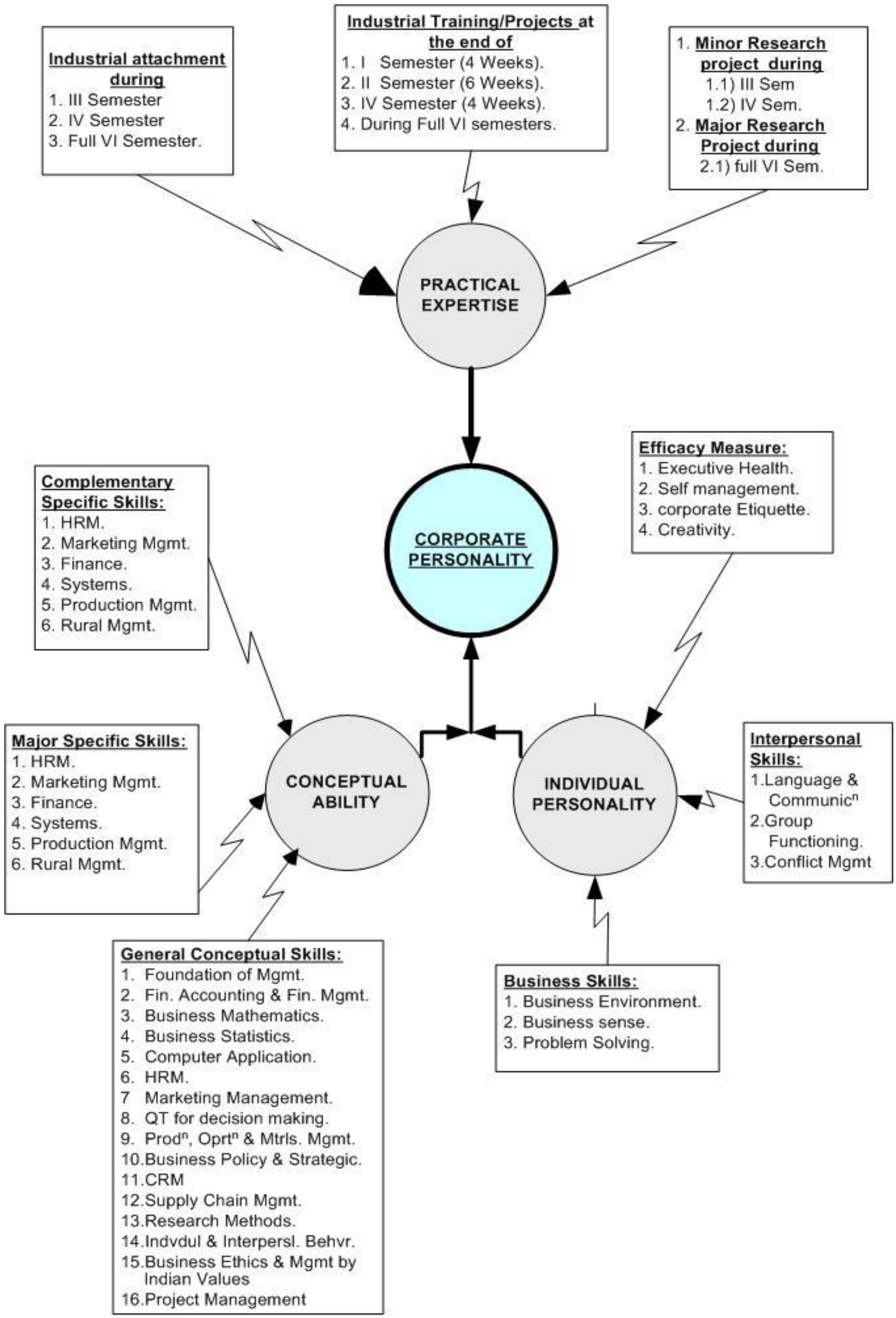
In the management education, the development of Individual Personality and development of Conceptual Ability are given due importance, but the globalized Business Expertise, though considered important, but is not presently given its due share, thus leaving the whole process of business education incomplete.

4. THE PROPOSED MODEL

The analysis of the prevailing management education system and the discussions with various customers of management education institutions have given inputs to visualize a new model which when implemented would go a long way in eradicating the shortcomings and preparing the education system to withstand the onslaughts of changes and fulfill the need of the integrated world. This model has been named **"The Triveni Model" (Fig. 2.0)** as it is based upon three essential elements, viz.

a) Development of Individual Personality.
b) Development of Conceptual Ability.
c) Development of Business expertise.

At Triveni, the Ganga and the Yamuna are visible and everybody can see and feel them, but the Saraswati is invisible source, without which the Triveni doesn't remain Triveni.



PROPOSED **"TRIVENI MODEL"** OF BUSINESS EDUCATION IN AN INTEGRATED WORLD

Source: Garg et al"Management Education In India- Reflections Of Today, Vision Of Tomorrow" National Seminar on Management Education – A Blue Print For Change, IBMR, April 1999, pp. 18-34.

Similarly in the management education also, the development of Individual Personality and development of Conceptual Ability are given due importance, but the Business Expertise, though considered important, but is not presently given its due share, thus leaving the whole process of business education incomplete. Successful management is an art and a science of application, of relating facts & concepts and of approaching problems with a holistic view. It works to help an individual identify himself, gain discipline related conceptual skills and by integrating these two, create a unique path for himself in the real life situation. The whole individual (with his SWOT, his attitude, his vision, his approach etc.) can be compared with the hands, the concepts with clay and these two together make a creation, over the wheel of real life situation (Business Expertise), which is unique. Without wheel, the clay can't take shape. The whole endeavor of management education lies in the development of these three aspects.

Once this model is religiously implemented, we feel that our products from MEI's will fulfill all the need of the integrated world**.**

The model so proposed targets these three aspects directly through a modular program. The objective of these modules varies according to the need with the right blend of theory, conceptual skills, and Business. Also, the modules shall impart understanding of the concepts through case studies after acquainting the students with basics. They shall help the student develop concepts for all the subjects and a clear focus in his specialization ones. The subject modules would aim at inter-disciplinary approach i.e. to link the subject concerned with the specialization subject. These modules shall be delivered simultaneously with subjects aligned in a need-based order. Every module shall consist of suitable number of papers of 5 credits each.

1.0 Details of Proposed Triveni Model

The three modules aim at developing the following:
Module I : Development of Individual Personality.
Module II : Development of Conceptual Ability.
Module III : Development of Business Expertise.

1.1 Module I which is on the development of individual person consists of three sub-modules which are on :
Development of interpersonal skills.
Development of business skills.
Development of efficacy.

1.11 Sub-module on development of Inter Personal Skills : Its elements are:
Communication skills: All types of communication, whether verbal or non-verbal are of great significance in the smooth working of any organization. A manager must know the use of appropriate words, gestures, and channels. He must ensure that he says what he wants to and the receiver receives it in its right perspective.

Behavioral skills: Politeness, leadership, listening, cooperation, team-spirit, good treatment of others, etc. are some significant behavioral skills and most of the time these play a bigger role than material facts in intra-organizational exchanges. These skills also help manager win over many situations.

Team Skills: Accommodating oneself in the team, utilizing the potential of all, compensating for the limitations of the group (if any), synergy, conflict resolution, effective team management are some virtues that are essential for successful teamwork.

Empathy: The root cause of many problems is lack of empathy and a high self image. Empathy is especially necessary in interdepartmental exchanges as it helps build trust, harmony, and peace.

Conflict management: In spite of the best efforts, if a conflict surfaces, it would be in the interest of all to confront it, to talk it out and resolve it.
This sub-module on Inter-personal skills may achieve its objectives through three papers, which are:

Language & Communication: Usage of English language, Business Communication, Report Writing, Presentations, Channels of communication, appropriate usage of words and language, Reading habits may be included in this paper.

Group Functioning: Behavioral skills and Team skills are to be included in this paper.

Conflict Management: Empathy, Confrontation, Managing conflicts etc. are to be included here.

1.12 Sub-module on development of Business Skills: It targets the following:

Knowledge of business environment: It is essential for a manager to keep abreast with what all is happening in the corporate world around him. Not only this, he must also have an idea about some landmark decisions of organization, individuals and governments.

Development of a "common sense" approach to business: Management Education can be referred to as "Common Sense made difficult." Many businessmen even without a formal training in management run their business well. A manager, in spite of the piles of knowledge must not complicate things and be simplified in approach.

Ability to relate, foresee, act and problem solving ability: The secret of a successful decision is the ability of the decision maker to relate facts, foresee situations and act. After all a manager is paid, not for reading the lines, but for reading in between the lines.
This sub-module on business skills achieves its objectives through three papers, which are:

Business Environment: Knowledge about the happenings in the corporate world and related areas, knowledge about historic happenings and decisions in the corporate world, readings from books by corporate leaders.

Business Sense: Developing a common sense approach towards business, shifting the attitude from details to the concepts.

Problem Solving: Ability to relate, foresee, act and be proactive & flexible. Problem solving ability.

1.13 Sub**-module on Efficacy Measures**: This sub-module aims at building a strong foundation for the entire infrastructure of a manager to thrive upon. It consists of:

Meditation, yoga, health, nutrition and sports: The challenges, stressful life, long working hours etc. adversely affect the health of an individual. Meditation ensures peace, clarity, & rejuvenation of the mind and a focus on health & nutrition would help a manager decide what to eat, when to eat and thus avoid diseases and disorders. Sports help keep the body agile and fit.

Time management, self-management, and corporate etiquette: These help ensure both efficient and effective working and also create a lasting impression.

Creativity, lateral thinking, creative writing, and appreciation of art, literature etc.: These bring out the finer aspects of the personality and also ensure a sense of fulfillment.
This sub- module on efficacy measures achieves its objectives through four papers, which are:

Executive Health: Meditation, Yoga, Nutrition, Ayurveda, parallel medicine, chants from scriptures, knowledge about disorders that executives are prone to, games etc.

Self-Management: Time–management, 5S, systematic approach, managing thy-self.

Corporate Etiquette: Dressing, Accessories, table manners, party etiquette, appreciation of music, art, literature, cultural heritage, inquisitiveness about other cultures etc.

Creativity: Creative writing, lateral thinking, managing creativity, learning to observe and learning to learn.

1.2 Module II focuses on developing the conceptual ability of a student. It has two sub-modules.

A. General

B. Specific.

1.21 The General sub-module would discuss all those subjects, which a management student ought to know in order to perform successfully. This module shall consist of the following subjects (The list is not all inclusive. Depending upon the requirement of time, this must be continuously reviewed):

1.22 The specific sub-module would consist of a major specialization (to be opted at the time of admission) and one complimentary specialization module (to be opted in the fourth semester). The complementary specialization sub-module would suffice the knowledge of the major specialization. The specialization can be awarded in any one of the five areas:

- Finance Management.
- Human Resource Management.

- Marketing Management.
- Production Management.
- International Business
- Management Information Systems.

The detailed curriculum of these shall be decided by the experts according to the needs of the time and shall be reviewed frequently.

1.3 Module III is about development of Business expertise:
1.31 The first inter-semester training would help a student gain an overall knowledge of the working of an organization. In the second training, at the end of one year, he would get an idea of the working of the department related to his specialization, involve himself in a project on a problem, would work on the study & redesigning of the systems and also to relate theory with practice.

1.32 During the second year of the studies, the student will be required to undertake a minor project and will be required to go to nearby industries at least for two days a week. This will bring a high level of clarity in the student about the working of the organizations and interdependence of various functions. It will also provide him a chance to test some of the learning in the functional area he has acquired.

1.33 The last leg of the course would be a 6-month industrial training of the nature of OJT along with one major industrial project. The organization and the university/ institute shall jointly evaluate this project.

The first inter-semester training would help a student gain an overall knowledge of the working of an organization. In the second training, at the end of one year, he would get an idea of the working of the department related to his specialization, involve himself in a international project on a problem, would work on the study & redesigning of the systems and also to relate theory with practice.

Institutions for management education are faced with enormous challenges. On the one hand, business is changing rapidly. On the other, the unclarified position between business and academia may limit the possibility of these institutions being able to develop in a way that serves business. This aspect of globalization requires development of knowledge as important factor of production.

Academia-Industry interface, interactive and collaborative arrangement between academia and institution and business, corporations for achieving of certain mutually inclusive goals and objectives. Industry participation in designing and conducing MDPs and other training programs. Academia-Industry partnership at global level for case writing, applied research etc. to achieve greater synergy. Involve industry at various stages to impart critical skills and make students "Industry Ready to serve at Global Level" Assigning Live Projects to students to have first hand experience of the industry across the borders and its working. Assigning minimum of twelve lectures to industry professionals from various countries out of 42 lectures per subject. Modular teaching for portions which demand more of industry inputs. Formation of curriculum committee with adequate representation from both academia and industry. Conducting workshops and seminars and collaboration with industry. Each business school needs to identify its own specific arrangement of collaboration with industry across the country. Student mentorship and training by corporate executives.

Most of the top global schools have close links with global firms and most of the top rated schools have been continuously working with them. There has been a convergence of competency-based approach of corporates and management development approach of business schools. A common interventional approach is finally emerging. This will be the integrating element in management education. Accreditation will help in having proper business processes in business schools, whereas the depth of curricula will emerge from the intensity of relationship with clients i.e. industry. Some of the corporations have even developed highly reputed programmes for their specific needs, and this market will continuously emerge. Business schools, if they are not responsive, will lose this market. The challenge is to ensure high quality management education that could financially sustain itself, but at the same time capable of generating a pool of leaders who could emerge as the real global business leaders. As Asian economies are growing faster than the others, there is a need to take charge of the situation if we have to emerge as leaders in Asian business. As manufacturing, research and services are getting relocated, executives need to develop a global outlook and business schools have to reorient rapidly to meet this global business challenge.

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