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The IJSM publishes papers that are selected through a rigorous double-blind review process. It is devoted to developing the core understanding of strategic management. The journal publishes research that is designed to appeal to strategy scholars, with implications within and across papers that are relevant for practicing managers.

The journal provides a communication forum for advancing strategic management theory and practice. The Journal seeks to improving the existing knowledge and understanding of strategy development and implementation globally in private and public organizations.

Published papers reflect the judgment of journal editors, who draw on the opinions and expertise of the journal's editorial board as well as additional reviewers when needed.

Papers accepted for publication are blind reviewed to ensure academic integrity. Practicing managers will also find this content of value when formulating and implementing new strategic initiatives, particularly the consultant market.

Overall, the IJSM provides a forum for advancing strategic management theory and practice. The journal publishes research on a wide range of topics, such as strategic resource allocation; organization structure; leadership; entrepreneurship and organizational purpose; methods and techniques for evaluating and understanding competitive, technological, social and political environments; planning processes; and strategic decision processes among many others. The journals welcomes theoretical and empirical research using any methodology that is relevant for its questions and research setting. Our Editorial Policy is one which is supportive, rather than critical.

Prof (Dr) Ashish Gadekar
Editor in Chief

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Validating Green Manufacturing (GM) Framework: A case study in Indian food industry

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Abstract:

Green manufacturing (GM) focuses on practices that reduces the environmental impact and do not harm the environment during any part of the manufacturing process. It emphasizes the use of processes that do not pollute the environment or harm consumers, employees, or other members of the community. This paper presents the details of a case study in Indian food industry.. It highlights the road map of the companies for achieving performance improvement through GM implementation and its impact on organizational performance. It also points out strengths and weaknesses of GM implementation practices and overall performance using developed research instrument. This study helps in evaluating the firms GM implementation and overall business performance. A research instrument was administered amongst employees in the company and their responses were analyzed. The results of the findings of case study are also discussed. The validated instrument of GM factors developed here may be used by manufacturing organizations to prioritize their management efforts to assess and implement GM. The validated results are in Indian context; however, the instrument developed can be used in global context

Keywords: Green manufacturing, critical success factors, reliability analysis, factor analysis

INTRODAUCTION

Green Manufacturing (GM) is a method for manufacturing that minimizes waste and pollution. It slows the depletion of natural resources as well as lowering the extensive amounts of trash that enter landfills. Its emphasis is on reducing parts, rationalizing materials, and reusing components, to help make products more efficient to build. GM involves not just the use of environmental design of products, use of environmental friendly raw materials, but also eco-friendly packing, distribution, and disposal or reuse after the lifetime of the product. Green manufacturing is a term used to describe manufacturing practices that do not harm the environment during any phase of the manufacturing. It emphasizes the use of processes that do not pollute the environment or harm consumers, employees, or other members of the community. Green manufacturing addresses a number of manufacturing matters, including 4R's(Reduce, Reuse, Recycle and Remanufacturing), conservation, waste management, water supply, environmental protection, regulatory compliance, pollution control, and a variety of related issue.

In these part of the study cases of two selected concerns are analysed where GM was successfully implemented and progressing well. Case studies are the preferred strategy when “how” or “why” questions are

being posed. Although the case study approach has a number of drawbacks, it also has a number of unique advantages. Among the drawbacks are the lack of statistical evidence from research findings and the possibility of the research influencing the phenomenon under study. The case study strategy is, however, the only way to provide an in-depth insight into the processes going on within complex organizations. The case study method has its strength in its ability to deal with a full variety of evidence such as documents, interviews and observations (Yin, 1989)..

1.1 Green Manufacturing Practices Indian scenario

As leading companies know, going green, if done right, helps companies bolster their fortunes. Few of the manufacturing firms have ensured to comply with the RoHs directive. Cummins Generator Technologies India proves 'green' manufacturing is possible and profitable CGT India's new alternator manufacturing facility at Ranjangaon (near Pune) is the first truly "green" manufacturing plant in Cummins. It incorporates an impressive list of sustainable features that minimize impact on the environment. Over the first 10 years of operation, the facility is expected to save over 14 million

kW of electricity and avoid over 14,500 tons of carbon dioxide emissions. That's the equivalent of removing 274 cars from the road. Suzlon Energy, world's fourth largest wind-turbine maker is among the greenest and best Indian companies in India. It is the biggest Wind Energy Company by far with 4-5 Gigawatts of WTG Capacity per year. The Company has seen its revenues and profits take a huge hit in recent times. 36 Million tones of carbon emissions avoided annually thus saving more than 21 million tones of coal per annum ,which is equivalent to about 6.1 million cars taken off the street annually. Similarly ITC Limited strengthened their commitment to green technologies by introducing 'ozone-treated elemental chlorine free' bleaching technology for the first time in India. The result is an entire new range of top green products and solutions. Acknowledged as a global exemplar in sustainability, ITC is the only enterprise in the world, of comparable dimensions to be carbon-positive, water-positive, and solid waste recycling positive. To achieve real financial benefits, Indian companies, like those elsewhere, need to follow certain key practices. Above all, they must commit to a green

Review of Literature

Critical success factors (CSF's) are the vital input factors that will drive a good GM system. Different authors have attempted to investigate the CSFs in GM with differing purposes and objectives. Critical factors should be interpreted as those circumstances or practices which already exist, or those that need to be developed in ensuring the success of GM implementation. Performance measures are deliverables or output of a GM system. Improving organizational performance is a goal of every organization. Organizational performance is the final result of running a business. It can reveal the effects of doing business, show the competitive capability of the firm in the market place and its financial status. According to Gutowski et al. (2005) Motivating factors for GM are regulatory mandates, economic advantage, reduced waste treatment and disposal costs, conservation of energy, water, materials, product take-back system, supply chain requirements, corporate image, and employee satisfaction. Deanna J. Richards(1994) in stresses on various CSFs of environmental conscious manufacturing viz. meeting customers needs, environmental tradeoffs, reuse, recycle LCA, green design, disposal etc According to Richard Florida et.al (2000) Factors play a key role in the adoption of environmental innovations, referred to as GM practices, organizational resources, organizational innovativeness, and organizational monitoring systems .The research also

philosophy and incorporate environmentally sustainable practices into their product lifecycle and supply chain operations.

1.2. Objective of Case Study

To verify whether the relationship established is valid through the responses from the industries. The major aim of the case studies is to provide a practical example of performance improvement of the Indian manufacturing company that has implemented GM initiative. One of the objectives of case studies was to assess the GM implementation practices and performance improvement of the organization. The study was conducted in company that have already implemented this initiative. This study help in evaluating the company's GM implementation and overall business performance. To do so, research instrument was administered amongst employees in the companies and their responses were analysed. In order to have a better understanding of the impact of GM implementation, the information about overall business performance was obtained over the last three years.

explored the interplay of organizational factors and spatial or geographic factors (such as proximity to customers and suppliers) in the adoption of ECM practices. Devashish Pujari (2003) includes environmental benchmarking and measurement, effective groundwork, cross-functional coordination, environmental database, supplier involvement, environmental policy/ legitimation. Three other factors emerging with relatively low variance were top management support and involvement, product experimentation, and environmental coordinator. M.A.Rehman and R.L. Shrivastava(2011) identified nineteen measures of GM includes Top management commitment, Need and role of employee team responsible for GM ,Green process/practices ,Green design ,Green purchasing/marketing ,Green packaging, Green transportation ,Green supply chain management GSCM ,Reverse logistic ,Reduce /remanufacture/recycle (3R) etc.

Jaideep Motwani (2001) identified seven critical factors and more than 45 performance measures of TQM. Including Top management commitment; quality measurement and benchmarking; process management, product design, employee training and empowerment, supplier quality management, customer involvement and satisfaction. Pius Achanga, et.al(2006) identified Several critical factors that

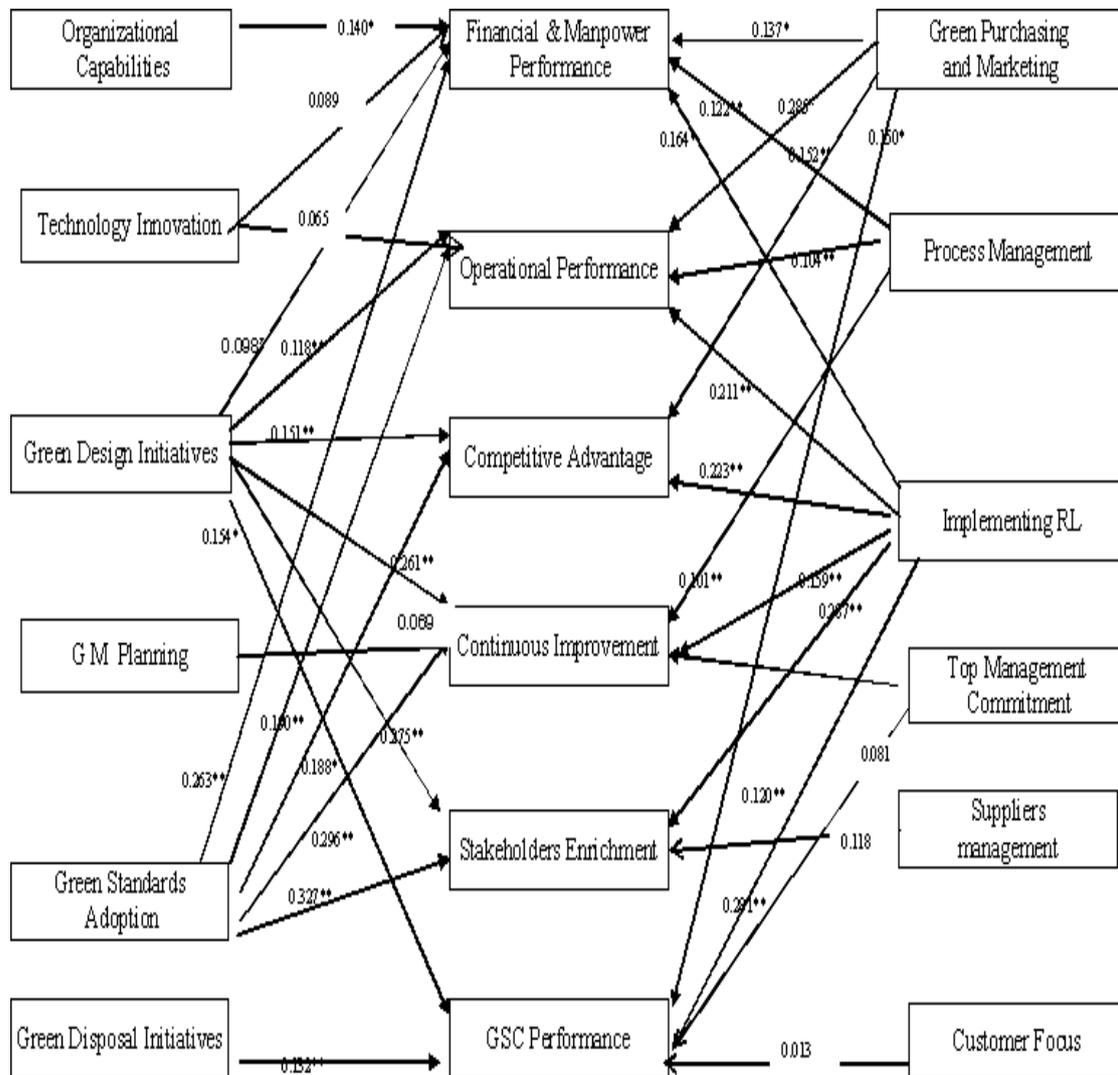


Figure 1 Derived GM Frame work (M.A Rehman and R.L.Shrivastava (2011))

determine the success of implementing the concept of lean manufacturing within SMEs that includes leadership, management, finance organisational culture and skills and expertise. Wee & Quazi (2005) recommended specific performance measures by listing seven factors identified as the key elements of Green manufacturing through reliability and validity analyses -top management commitment to environmental management, total involvement of employees, training green product/process design, supplier management, measurement, and information management .According to Wee and Quazi, there is a need to focus on environmental issues for improving the performance of organizations. According to Cote and Richardson (2009) the corporate drivers for green manufacturing include public opinion, shareholder value, cost reductions, joining industry leaders and complying with environmental management regulations. According to Lele .S (2009) there are many drivers which are expanding the boundaries for green manufacturing. A growing number of executives today feel that going green will help them to compete more effectively in the marketplace in the long term. In summary the major drivers can be grouped into three key areas competitiveness, corporate social responsibility, and legislation. According to Gutowski et al. (2005)

Motivating factors for GM are regulatory mandates, economic advantage, reduced waste treatment and disposal costs, conservation of energy, water, materials, product take-back system, supply chain requirements, corporate image, and employee satisfaction. Azzone &Noci(1998),identified various PM for the deployment of GM strategies includes, change in production planning, procurement polices, cleaner technologies, Involvement of employees and Top managerial in design and development phase ,recycling base activities, EOL,LCA, Takeback, economic value creation monitoring physical indices(waste water, air emission, solid waste & energy consumption).Kit Fai Pun (2006) identifies 15 environmental responsible operations (ERO) /factors under three groupings, namely policy, product/process, and performance evaluation. Depending upon the critical success factors and performance measure a validated instrument of GM factors is developed .Based on the information provided by the respondent and the analysis of survey data about GM implementation for manufacturing companies in India, a GM frame work is developed. Statistical methods such as descriptive statistics, factor analysis, correlation analysis, regression analysis and hypotheses testing were used in the analysis. Table2 shows the strong and weak

relationship between the various GM implementation factors and the Performance measures.

2. Case Study At Vasudhara Dairy, Nagpur (AMUL)

Gujarat Cooperative Milk Marketing Federation Ltd (GCMMF) is the largest Organisation in FMCG industry engaged in marketing of milk & milk products under the brand names of **AMUL** and **SAGAR** with an annual turnover exceeding Rs 9774 crores. GCMMF is a unique organisation.

2.1 Brief about the Organisation

The case study was carried out at Vasudhara Dairy, Nagpur is unit of AMUL which is one of the India’s Top 10 Green brands and manufactures/processes liquid Milk, Ice-cream, Sterilized Flavored Milk and Curd. It is a milk producers’ cooperative organization having its head office at Alipur dist. Valsad (Gujarat)and through it affiliated to Gujarat Cooperative Milk marketing

federation Ltd, Anand, Which is the apex marketing body of AMUL. More than 2 Lacs milk producers are the members of the Vasudhara Dairy, Alipur.

This dairy at Nagpur started in April 2002 when it acquired the sick and closed unit of M/s Frozen Food Pvt. Ltd. The unit had the capacity of 2000 L ice-cream per day. Soon after acquisition, expansion, modernization and addition of new product lines was taken up. Ice-cream capacity has been enhanced to now 10000 Liters per day per shift basis.

2.2 Performance improvement programs pursued by the company (GM In Company)

Following are the various GM performance improvement programs followed by company since last three years. It also shows the Year wise growth of the company and effect on cost

reduction since last three years .It also includes the various Initiatives taken by the company for implementing GM. Table 1 shows Green manufacturing Practices implemented in the company.

Table .1 Green manufacturing Practices implemented in the company

GM Practices	2011-12	2010-11	2009-10
ISO 9000	√	√	√
ISO 14001:2008			
OHSAS 18001			
HACCP	√	√	√
Environmental Auditing	√	√	√
Rohs			
Design for environment			
LCA, EOL, Close loop & Cradle to Cradle			
Green Disposal Initiatives	√	√	√
Green Design Initiatives			
Green Standards Adoption			
Suppliers management ,	√	√	√
Technology Innovation	√	√	√
GM Planning	√	√	√
Green purchasing and marketing	√		
Implementing RL			

2.3 Road Map (Future planning for technology absorption, research etc.)

1Steps are taken to utilize ETP Sludge as fuel for boiler, it contains fatty oil content. Thus leads to energy conservation and cost reduction

2 Recycling of used packaging (ice-cream cups, milk pouch etc.).It can be done through RL

3 utilization of green packaging

4 Clean Milk Productions

5 Sustainable ecological development plans to focus on expanding category penetration and enlarging consumer base of most of the product categories that we operate in. This will enable to tap the huge un-touched potential for branded, packaged, value-added dairy products in urban, semi-urban and rural India. In terms of product innovations, firm will sharpen their focus on value-added derivatives, moving further up the value chain. Firm will continue to enhance their range of fresh

and fermented products. It has to work simultaneously on the supply side as well as the demand side so that the demand-supply equation can be effectively managed and the dairy cooperative movement can continue to flourish and grow. Firm will also ensure that farmers continue to receive remunerative price for their milk and that maximum percentage of consumer’s rupee flows back to the farmers.

2.4 Validation of the research instrument

The instrument was distributed to thirty managers of the company .The responses were analyzed, mean of each item was estimated and items were grouped as respective factors. Further Grand mean of all six factors was obtained.

Table .2: Assessment result – Factor1 Organizational Capabilities

Addressed items of the factors	Mean	Grand Mean	Max Marks	Extent of Relationship
Organizational Capabilities Leads to Improvement in Financial and Manpower performance	4.43	3.94	6	Large
Organizational Capabilities Leads to Improvement in Operational Performance	4.13			Large
Organizational Capabilities Leads to Improvement in Competitive advantages	3.90			Large
Organizational Capabilities Leads to Continuous improvement	3.87			Large
Organizational Capabilities Leads to Improvement in Stakeholders Enrichment	3.57			Large
Organizational Capabilities Leads to Improvement in Green SC Performance	3.77			Large

Table .3: Assessment result – Factor2 Green Design Initiatives

Addressed items of the factors	Mean	Grand Mean	Max Marks	Extent of Relationship
Green Design Initiatives Leads to Improvement in Financial and Manpower Performance	3.98	3.99	6	Large
Green Design Initiatives Leads to Improvement in Operational Performance	2.81			Moderate
Green Design Initiatives Leads to Improvement in Competitive advantages	3.71			Large
Green Design Initiatives Leads to Continuous Improvement	2.45			Little
Green Design Initiatives Leads to Improvement in Stakeholders Enrichment	4.07			Large
Green Design Initiatives Leads to Improvement in Green SC Performance	4.12			Large

Table .4: Assessment result – Factor3 Green Standards Adoption

Addressed items of the factors	Mean	Grand Mean	Max Marks	Extent of Relationship
Green Standards Adoption Leads to Improvement in Financial and Manpower performance	4.30	4.12	7	Large
Green Standards Adoption Leads to Improvement in Operational Performance	4.07			Large
Green Standards Adoption Leads to Improvement in Competitive advantages	4.27			Large
Green Standards Adoption Leads to Continuous Improvement	4.07			Large
Green Standards Adoption Leads to Improvement in Stakeholders Enrichment	4.10			Large
Green Standards Adoption Leads to Improvement in Green SC Performance	3.90			Large

Table 5: Assessment result – Factor4 Suppliers Management

Addressed items of the factors	Mean	Grand Mean	Max Marks	Extent of Relationship
Suppliers Management, Leads to Improvement in Financial and Manpower performance	3.90	4.11	7	Large
Suppliers Management, Leads to Improvement in Stakeholders Enrichment	4.33			Large
Suppliers Management, Leads to Improvement in Green SC Performance	4.10			Large

Table 6: Assessment result – Factor5 Technology Innovation

Addressed items of the factors	Mean	Grand Mean	Max Marks	Extent of Relationship
Technology Innovation Leads to Improvement in Financial and Manpower performance	4.43	4.36	7	Large
Technology Innovation Leads to Improvement in Operational Performance	4.53			Large
Technology Innovation Leads to Continuous Improvement	4.10			Large

Table .7: Assessment result – Factor6 GM Planning

Addressed items of the factors	Mean	Grand Mean	Max Marks	Extent of Relationship
GM Planning Leads to Improvement in Operational Performance	4.07	3.90	6	Large
GM Planning Leads to Continuous Improvement	3.83			Large
GM Planning Leads to Improvement in Stakeholders Enrichment	3.80			Large

Table .8: Assessment result – Factor7 Green purchasing & marketing

Addressed items of the factors	Mean	Grand Mean	Max Marks	Extent of Relationship
Green purchasing & marketing Leads to Improvement in Financial and Manpower performance	3.27	3.87	6	Large
Green purchasing & marketing Leads to Improvement in Operational Performance	4.4			Large
Green purchasing & marketing Leads to Improvement in Competitive advantages	4.41			Large
Green purchasing & marketing Leads to Continuous Improvement	3.47			Large
Green purchasing & marketing Leads to Improvement in Stakeholders Enrichment	2.74			Moderate
Green purchasing and marketing Leads to Improvement in Green SC Performance	4.3			Large

Table .9: Assessment result – Factor8 Implementing RL

Addressed items of the factors	Mean	Grand Mean	Max Marks	Extent of Relationship
Implementing RL Leads to Improvement in Financial and Manpower performance	3.94	3.91	6	Large
Implementing RL Leads to Improvement in Operational Performance	3.88			Large

Implementing RL Leads to Improvement in Competitive advantages	4.1			Large
Implementing RL Leads to Continuous Improvement	3.27			Large
Implementing RL Leads to Improvement in Stakeholders Enrichment	3.98			Large
Implementing RL Leads to Improvement in Green SC Performance	4.32			Large

Table .10: Assessment result – Factor 9 Top management Commitment

Addressed items of the factors	Mean	Grand Mean	Max Marks	Extent of Relationship
Top management Commitment Leads to Improvement in Financial and Manpower performance	4.00	4.21	7	Large
Top management Commitment Leads to Improvement in Operational Performance	4.13			Large
Top management Commitment Leads to Improvement in Competitive advantages	4.00			Large
Top management Commitment Leads to Continuous Improvement	4.60			Large
Top management Commitment Leads to Improvement in Stakeholders Enrichment	3.97			Large
Top management Commitment Leads to Improvement in Green SC Performance	4.53			Large

Table 11: Assessment result – Factor 10 Customers Focus

Addressed items of the factors	Mean	Grand Mean	Max Marks	Extent of Relationship
Customers Focus Leads to Continuous Improvement	3.43	3.63	6	Large
Customers Focus Leads to Improvement in Stakeholders Enrichment	3.77			Large
Customers Focus Leads to Improvement in Green SC Performance	3.70			Large

Table .12: Assessment result – Factor 11 Green Disposal initiatives

Addressed items of the factors	Mean	Grand Mean	Max Marks	Extent of Relationship
Green Disposal initiatives Leads to Improvement in Financial and Manpower performance	3.73	3.91	6	Large
Green Disposal Initiatives Leads to Improvement in Operational Performance	3.90			Large
Green Disposal Initiatives Leads to Improvement in Competitive advantages	3.80			Large
Green Disposal Initiatives Leads to Continuous Improvement	4.00			Large
Green Disposal Initiatives Leads to Improvement in Stakeholders Enrichment	3.70			Large
Green Disposal Green SC Initiatives Leads to Improvement in Green SCP	4.30			Large

Table .13: Assessment result – Factor12 process management

Addressed items of the factors	Mean	Grand Mean	Max Marks	Extent of Relationship
process management Leads to Improvement in Financial and Manpower performance	4.22	3.96	6	Large
process management Leads to Improvement in Operational Performance	3.88			Large
process management Leads to Improvement in Competitive advantages	3.78			Large
process management Leads to Continuous Improvement	4.02			Large
process management Leads to Improvement in Stakeholders Enrichment	3.93			Large
process management Leads to Improvement in Green SC Performance	3.97			Large

Based on above analysis, overall grade of the company was estimated as follows.

Numerical weightage assigned to each factor/performance parameter = 8 marks

Number of factors = 12

Maximum marks (12*8) = 96

Total marks achieved = 76

% marks achieved = 79.16%

Overall grade = B

The overall grade achieved as per grading criteria is B. It is due to the percentage mark which comes very near to grade A. This may be because the extent to which the company follows or implements GM. Being a food processing unit its main focus is on food safety and hygiene which it successfully ensures. The GM implementation in this company is limited to energy saving ,water saving, reducing toxic from product, packaging .It also ensures training of employees and suppliers but again main focus is on food safety. Thus by using the developed research instrument the degree of emphasis of GM implementation and its impact on organizational performance was measured. Through the assessment of the company's GM practice and overall business performance, most of the established relationship as per the derived model between the implementation factors and the performance measures of the company come to be large to very large extent. Relationship such as Green Design Initiatives Leads to Improvement in Operational Performance and Green purchasing & marketing Leads to Continuous Improvement as well as Stakeholders enrichment are identified as Moderate extent relationship. Whereas relationship such as Green Design Initiatives Leads to Continuous Improvement are identified as little extent relationship. Lower marked practices (e.g. lower than or equal to 4) should be given more attention by the company. These weaknesses could be used as improvement possibilities for further improving the company's GM implementation. Thus the developed

research instrument is validated and it can be used by companies practising GM approach

2.5. Impact of GM implementation on organizational performance

The data of the company's overall business performance could be used as input for formulating an effective improvement plan. Therefore, evaluating overall business performance was also an important part of GM implementation. In fact, this performance reflected the effects of the company's GM implementation. For assessing the impact of GM practices on the organizational performance the performance parameters were compared for last three years and discussed in further sections. For measuring strategic business performance, the addressed areas are listed in the first column. The results are listed in the second to fourth columns. The strengths and weaknesses are listed in the fifth column (Table .24, Table .35).

2.5.1 Overall growth of the company due to GM practice

The company regularly measured its annual sales, capacity utilization, market share and exports. The indices of these indicators between 2011-12 and 2009-10 are listed in Table 5.36. The annual sales of the company have increased by 22 % over the years. Similarly capacity utilization and market share have also increased. There is incredible increase in export of the company. This indicates the positive effect of the company's GM implementation. Productivity is one of the key indicators of organizational performance. The productivity target (in terms of sales) fixed by the company and actually achieved in the particular year are shown in Table 5.36 for past three years. In this company production is stated in terms of sales amount. It also represents year wise sales growth of the company which indicates improvement in productivity over the years.

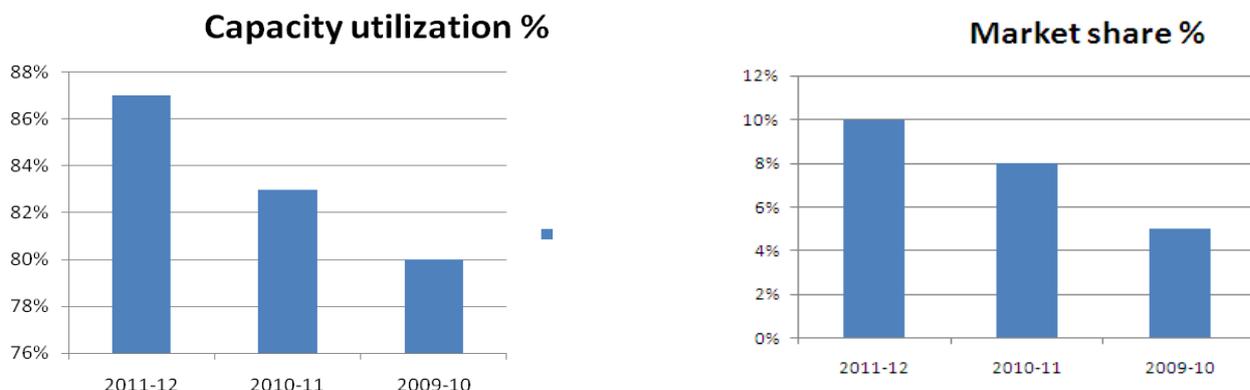


Figure 2 capacity utilization and market share for last three years (source:- Company)

Table .14 Year wise growth of the company

Addressed Areas	2011-12	2010-11	2009-10
Annual sales (in cr)	235	205	96
Capacity utilization %	87%	83%	80%
Market share %	10 %	8%	5%
Export in Rs	---	---	--
Year wise productivity (Lac lit/day)	Targeted	Achieved	% Achieved
Year 2011-12	1.5 LLPD	1.44 LLPD	96%
2010-11	1.25 LLPD	1.18 LLPD	95%
2009-10	1.0 LLPD	0.96 LLPD	96%

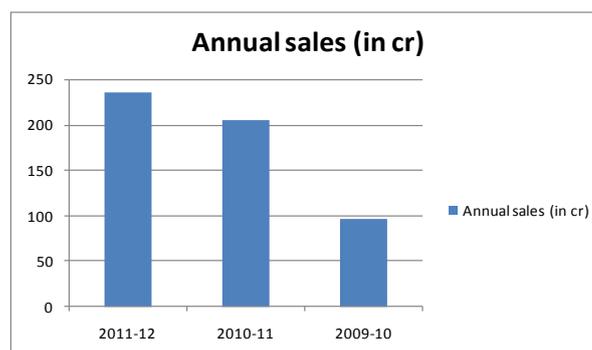
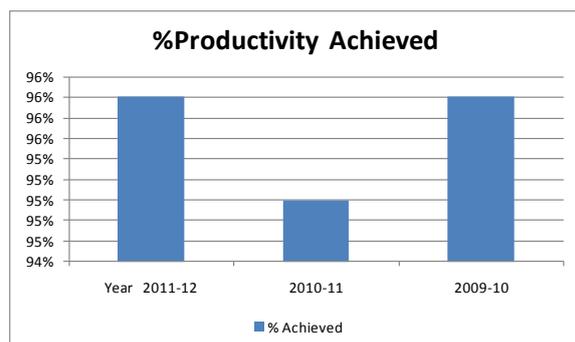


Figure .3 productivity and Annual sales for last three years (source:- Company)

2.5.2 Effect on cost reduction by implementing GM

Cost reduction is important aspect of any organization. The cost of raw material has witnessed a steep rise in domestic and international market, which is beyond the control of this company. Fixed overheads are increasing due to increase in labor cost, supervision charges and due to induction of new technology. In spite of these adverse factors company has initiated various efforts to reduce the cost of production. In this company various cost reduction measures were adopted. The measures are given in Table 15.

2.6 GM Initiatives taken by company:

1 Boiler Fuel changes from Furnace oil to artificial coal (brackets). It is made up of crop remains. It is cheap as compared to furnace oil. It leads to cost reduction and helps in minimizing sulfur, carbon content per year

2 For processing 1.25 cu lit milk, equal quantity of fresh water is used. Out of this waste water 45 KL Recovered/ Day through Recycling and used in Toilets / Gardening. It Leads to cost reduction and cost saving. Apart from the above major initiatives there are various steps taken by the company to initiate GM in their firm .it is listed as under

Table .15 Effect on cost reduction

1 Alternative Boiler Fuel	Furnace Oil	Artificial Coal (brackets')
Calorific Value	3500 /kg	950/kg
Rate	40 Rs/Kg	3.8 Rs/Kg
Yearly cost saving		@ Rs 2-2.5 Lacs
2 Recycled waste water		
1.25 cu lit fresh water used	45 KL Recovered/ Day through Recycling and used in Toilets / Gardening	
@ 12.50 /KL	Yearly Cost Saving	@ 2 lac
3 Energy Saving	Yearly Cost Saving	@ 3-5 lac

Table .16 :- GM Initiatives taken by company

Sr No	GM Initiatives	Previous condition	Observation:	Investment /Saving
1	Replacement of 7.5 Hp Chilled water Pump with 3 Hp Pump Vision: To Reduce power consumption	using 7.5 Hp pump for IBT return chilled water tank circulation purpose.	Frequent on-off of pump Status: Replaced 7.5 Hp pump with 3 Hp after flow rate calculation	Investment : Rs. 25000 Saving : Saving of 2.27 Kwh & Pump running Hrs 16 ,Hence savings in Rs. 2.27 X 16 x 365 x 4.41 ,i.e. Rs 58462 per Annum
2	Dry Nut Roasting oven Hot Air Blower shaft frequent bent and noise problem Vision: To reduce power consumption & Maintenance cost	using 1.2 meters long pedestal mounted shaft blower for hot air circulation	Due to inadequate balancing and induced draft, there was problem of frequent breakdown and improper hot air circulation. Status: Replaced induced draft Blower (750 watt) with forced draft fan (370 watt)	Investment : Rs. 5000 /- Saving: 1. Saving of 0.38 Kwh & Running Hrs 16 ,2. Hence savings in Rs. 0.38 X 16 x 365 x 4.41 ,i.e. Rs 9786 per Annum. Other Benefits : * Reduction in Maintenance cost *Process time saved 30mi/batch
3	Installation of Advance New Technology Ammonia KC-Compressor replacing old Compressor . Vision : To Reduce power consumption	Using old technology freeze 5/5 compressors for refrigerant plant.	To Reduce power consumption Status: Putting all kirloskar compressors instead of freeze 5/5	Investment : 3.7 Lacs Calculation : Old comp. Gives 15 TR with 30 Hp power consumption New Comp. Giving 60 TR with 75 Hp power consumption Hence 540 Kwh saving per day. Saving : 540 * 30*12*4.41 = 857304 l
4	Replacement of Al-Fan by FRP fan of cooling tower Vision : To reduce power consumption & Maintenance cost	Previous condition : We were using Al- fan air circulation	FRP Fan 4 blades 2 Nos Cooling Tower Status : Replaced Al-fan with FRP fan	Investment : Rs. 54000/- Saving : 1. Saving of 1.5 Kwh & Running Hrs 22 2. Hence savings in Rs. 1.51 X 22 x 365 x 4.41 i.e. Rs 53600 per Annum. Other Benefits : * Reduction in Maintenance cost

5	Use of Elgi Compressor for PID Valve operation In night shift Vision : To reduce power consumption & Maintenance cost	Previous condition : We were running Atlas Copco Air Compressor (30 Hp) for fulfilling the air requirement in night shift only managing the PID valve operation	Status : In lack season now we are running Elgi Air Compressor (10 Hp) in place of 30 Hp Air compressor	Investment : Rs. 35000 /- Saving : 1. Saving of 15 Kwh & Running Hrs 8 2. Hence savings in Rs. 15 X 8 x 240 x 4.41 i.e. Rs 127008 per Annum. Other Benefits : * Reduction in Maintenance cost
6	Installation of Automatic Power Factor Controller Vision: to maintain the power factor unity and get the benefits of the same.	Power factor unity is not there with old arrangement	Automatic power factor controller installed in APFC panel Status :so that according to load it will on capacitor bank and maintain Power factor unity	Investment - 2.4 Lacs Savings – 7.16 Lacs per Annum

2.6.1 Implementations factors undertook by the company for implementing GM are as under

1 Organizational Capabilities:- The initiatives taken by the company under this are training of employees every 3 – 6 month, health checkup, skill improvement programs are also scheduled. This leads to empowerment, involvement and dedication of employees

2 Green Design Initiatives:- Since being a process industry not much of design is done in the company except some minor designing .But whatever processing is done it complies the green designing by producing minimum waste (all solid, liquid and gaseous).It involves packaging material which having minimum environmental impact

Table.17 study of various implementation factors between companies

	Driving forces for adopting GM
What are the factors which drives the companies to adopt GM	Commercial saving, Employment generation ,Govt. regulation compliance
Which Green practices adopted by the companies before implementing GM	ETP, Conventional pollution prevention (max works carried by vendors)
What are the changes adopted to implement GM	Water Recycling, Boiler fuel changes from furnace oil to green fuel, energy saving devices
What are the changes experienced by the company after implementation of GM	Cost saving, Green environment ,green work culture
What are the barriers faced by the companies to adopt GM	Limited space, layout alteration , Govt. approval
Is there any opposition by the employees to adopt GM	No
What is the Road map of the company for achieving performance improvement through GM	More Energy saving, water saving, ISO 22000 compliance
What are the various GM performance improvement programs implemented by the companies	Training provided to employee (3-6 month), Health and safety check, Training to check hazardous chemicals leakages (Ammonia), safety training

3 Green Standard Adaptation:- company is ISO9001:2008,HACCP, certified and preparing for ISO 22000(food). Practices such as water and electricity saving is practised by the company. Thus the company is

creating Green image which is pre-requisite for sustainable growth

4 Suppliers management :- Preference is given to Green suppliers (ISO 900, ISO 14000 certified).Suppliers training is done at regular interval, technological support

and technical assistance provided to suppliers so as to improve their green commitment and responsiveness

5 Technology Innovations:-various automated technologies are implemented to improve the quality and reduce environmental impact. It includes development of alternative fuel for boiler

6 GM planning: To sustain in this current industrial scenario, environmental concerns are driving management to focus and believe that GM can benefit company in many ways. The management of AMUL had planned and taken several steps to improve the environmental condition of the firm .It includes implementation of GM, water and energy conservation, green disposal planning etc.

7 Green purchasing & marketing: It starts with purchasing green fuel instead of conventional diesel for boiler. This initiative of firm will promote Green purchasing and

marketing policies that ultimately encourage GM.

8 Implementing RL:-Though reverse logistic is not fully implemented by the firm but the doors are open for GSC that includes mechanism for product recovery through RL

9 Top management commitment:-The firm believes that without the commitment by top management no improvement can ever be done .In AMUL the Top management is thoroughly committed to ensure quality practices and implements effective green practices to

ensure GM process. It ensures adequate budgetary and resource provisions to facilitate GM.

10 Customers Focus:-Customer focus is of prime concern for the firm. Being a food processing unit customer satisfaction is always at the top of list. The firm is thus focusing on customer requirement while being adhere to GM.

11 Green Disposal Initiatives :-Disposal planning and Scientific management of all types of wastes through Initiatives like ETP, reuse of waste water, ammonia leakage checking ,sludge management ,by-product selling etc leads to successful green disposal

12 Process management:-Efforts are taken by the firm to manage the entire manufacturing process so as to ensure successful GM .Various departments are there and at each level of production responsible persons are there to ensure proper process management.

3 Results and Analysis

3.1 Validation of GM Implementation (Performance) Model For company (Mean and F value of ANOVA)

The collected data was analyzed and one way Analysis of Variance (ANOVA) is carried out to identify the difference between the perceptions of various level of management and mean factor of GM factors (Independent and dependent). The various level of management is classified as

Table .18 Mean and F value of ANOVA For Company

Performance measure Critical success factor	Financial and Manpower Performance	Operational Performance	Competitive advantages	Continuous Improvement	Stakeholders Enrichment	Green SC Performance
Organizational Capabilities	4.464 (1.468)**	4.121 (1.693)	3.900 (0.361)	3.852 (1.292)	3.58 (.571)	3.766 (.175)
Green Design Initiatives	4.272 (5.740)**	4.272 (5.740)**	4.422 (3.846)**	4.230 (3.730)**	4.076 (2.204)	4.429 (5.692)**
Green Standards Adoption	4.317 (2.898)*	4.102 (3.636)**	4.294 (1.824)	4.095 (3.300)**	4.131 (3.081)**	3.900 (.615)
Suppliers Management ,	3.881 (1.383)**				4.371 (7.811)**	4.086 (1.027)
Technology Innovation	4.464 (6.927)**	4.55 (4.320)*		4.080 (2.729)*		
GM Planning		4.064 (.869)		3.830 (1.517)**	3.794 (1.994)	
Green purchasing and Marketing	4.288 (2.837)*	4.515 (3.668)*	4.509 (2.234)	3.939 (2.827)*	3.714 (.471)**	4.323 (2.802)*
Implementing RL	4.153 (2.870)*	4.294 (9.2750)**	4.656 (9.798)**	4.294 (4.748)**	4.480 (2.243)*	4.592 (3.579)*
Top management Commitment	3.993 (1.057)**	4.121 (4.455)*	4.006 (.729)*	4.615 (3.048)**	3.971 (.953)	4.55 (5.087)*
Customers Focus				4.003 (2.344)*	3.759 (.755)	4.515 (1.461)
Green Disposal Initiatives	3.724 (2.369)*	3.906 (1.790)	3.807 (2.311)	3.987 (1.007)	3.701 (.524)	4.329 (3.540)*
Process Management	4.474 (.908)	4.243 (4.492)**	3.948 (2.207)	4.551 (3.146)**	3.923 (.823)	4.070 (1.756)

** . significant at the 5% level * . significant at the 10% level

Sr.Manager /Manager/Sr officer, Asst./Deputy/officer/Engg, Jr.Manager /officer and Technician/Supervisor/trainee. The mean factor score of the factors extracted from the GM Independent and dependent factors are tested to identify whether it differs from various level of management or not .The descriptive statistics are shown in table 18. From the Table. it is evident that for success factor Organizational Capabilities, the calculated F value for company is 1.468, significant at the 5% level . Similarly the mean value for Company are 4.646 which is at higher side. Hence it can be concluded that there is a significant improvement in organizations Financial and Manpower performance by Organizational Capabilities. Hence the relationship between Organizational Capabilities and Financial and Manpower performance is considered as significant. Similarly Organizational Capabilities plays vital role and leads to improvement in other organizations performance measures like Operational Performance, Competitive advantages, Continuous Improvement, Stakeholders Enrichment and Green SC Performance . Hence the relationship between Organizational Capabilities and organizational

performance measures are considered as significant. For Green Design Initiatives, the calculated F value is, 5.740 which is significant at the 5% level for firm. Similarly the mean value for Company 4.272 which is at higher side. Hence it can be concluded that there is a significant improvement in organizations Financial and Manpower performance through Green Design Initiatives. Hence the relationship between Green Design Initiatives and Financial and Manpower performance is considered as significant .Similarly Green Design Initiatives plays a vital role and leads to improvement in other organizations performance measures like Operational Performance, Competitive advantages, Continuous Improvement, Stakeholders Enrichment and Green SC Performance . Hence the relationship between Green Design Initiatives and organizational performance measures are considered as significant. After going through the values of F and mean for critical success factors like Green Standards Adoption, Green purchasing and marketing, Top management Commitment, Green Disposal Initiatives and process management it can be concluded that there is a significant improvement in organizations performance measures through this critical success factors. Hence the relationship between this is considered as significant.

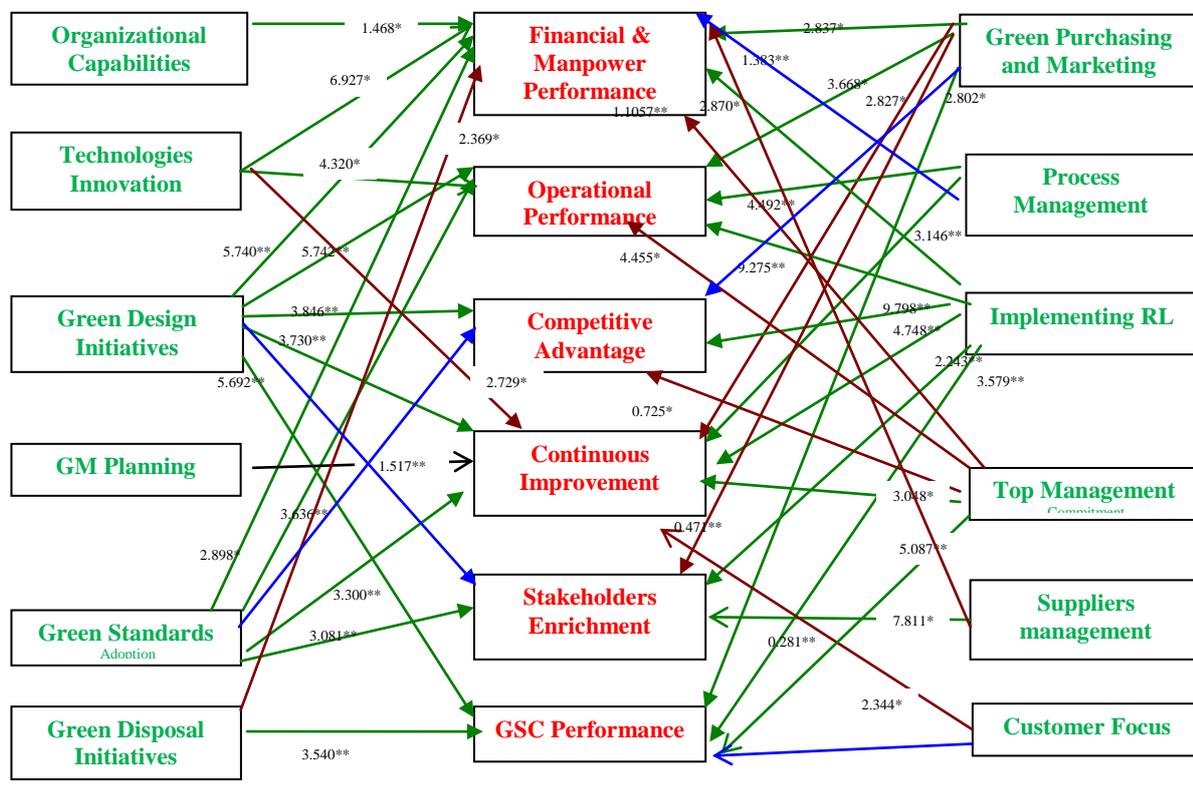


Fig. 4 GM Model for Company

- Relationship Similar to derived model
- Relationship Added to derived model
- Relationship deleted from derived model

Model for company shows the relationship like Technology Innovation leads to Operational Performance, Green Disposal Initiatives leads to Financial and Manpower Performance, Green purchasing & marketing leads to Continuous Improvements & Stakeholders Enrichment, Top management commitment

leads to Financial and Manpower Performance, Operational Performance and Competitive advantages, Suppliers management leads to Financial and Manpower Performance, Customers Focus leads to Continuous Improvements. Whereas the relationship which are deleted from existing model are Green Design Initiatives leads to Stakeholders Enrichment, Green Standard Adaptation leads to Competitive advantages, Process

management leads to Financial and Manpower Performance, Green purchasing & marketing leads to Competitive advantages, Customers Focus leads to Green SC Performance

Thus from the above discussion it is found that significant relationship exists between implementation factors and performance measures of companies which ultimately validates the derived model. From the models, it can be concluded that the Company (AMUL Ltd.) have majority of the significant relationships between organizations performance measures and GM Critical Success Factors. The Derived GM implementation model shows 33 number of significant relationship between organizations performance measures and GM Critical Success Factors. From the case studies result it can be seen that the Company has 28 number of identical significant relationships between organizations performance measures and GM Critical Success Factors. Hence it can be concluded that the GM Implementation (Performance) model derived in this research studies is strongly validated as the two GM practising Indian industries are following this to a great extent.

4. Discussion and Conclusion

The strategic implementation of GM in steps leads to an optimization of some selected process parameters, thus resulting in substantial saving in overall operational costs of industry. The organization has made substantial improvements in their bottom line results by deploying GM implementation model. The case study highlights the weak areas which can be used as possibilities for the company to improve its GM implementation and overall business performance. However, it should be noted that even its strong areas are not at all perfect as indicated by marks scored by respective items; they still have room for improvement. Strong and average areas are just a relative sense compared with the company's weak areas, though weak areas should receive more attention. The weak areas of the company's GM implementation can be used by the company to formulate improvement plans. The results obtained from the implementation of GM initiative were encouraging for both the organizations and also substantiated the model. The organizations also benefited through the improvement in various areas and because of GM implementation the organizations have continuously improved their performances. In the process the organizations received appreciations (awards and accolades), enhance profit and also gained significant benefits through GM implementation. The GM Implementation model derived in this research study is valid for Indian industries which are implementing Green manufacturing technique or who desire to implement GM technique in future.

The derived GM model and the result obtained in this research were required to be tested and validated. This task has been accomplished through case study outlined in this paper. The entire process of GM model was carried out. The results show that the various performance indicators show remarkable improvement over the years. The company has achieved both tangible and intangible benefits by practising GM. The case study shows that GM approach can be used to benchmark company's continuous improvement self-assess their GM efforts and measure their progress over time. Through this, company can quickly identify which areas urgently need improvement. Thus, resources can be allocated with

better discretion. It is found that significant relationship exists between implementation factors and performance measures of company which ultimately validate the derived model. The developed research instrument has been validated. It can be used by other manufacturing companies practicing GM initiatives.

The various performance indicators show remarkable improvement over the years. The company has achieved both tangible and intangible benefits by practicing this approach. The case study shows that GM approach can be used to benchmark company's continuous improvement, self-assess their quality improvement efforts and measure their progress over time. Through this, company can quickly identify which areas urgently need improvement. Thus, resources can be allocated more wisely. The results obtained from the implementation of GM initiative were encouraging for the organizations, and also substantiated the model. The organizations also benefited through the improvement in various areas and because of GM implementation the organizations have continuously improved their performances. In the process the organizations received appreciations from their customers and also gained significant benefits through GM implementation. The concerns also certified that 'The GM Implementation (Performance) Model' developed by the researcher through his research study served as a useful guidance in successfully implementing GM practices in their organizations and in achieving better organizational performance.

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Product diversification as a strategy for branding and business growth

Study of an efficient company

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Abstract

This work aims to analyze the relationship of the diversification of products with the brand positioning and his time with business growth, on the assumption that the strategy is applicable in the diversification of products for brand positioning and generate a considerable business growth, In this analysis used the qualitative method on the basis of a case study of an efficient company that complies with the requirements to be applied the theory of resources and capacities because of their activity and business history. In conclusion, the case study we provides relevant data that allows you to identify the correlation between the diversification of products and brand positioning, and that these in turn are important factors for business growth due to the needs that arise when diversifying the production, such as broadening the current facilities or opening new plants for the supply of production.

Keywords: Business Growth, strategy, diversification of products, brand, positioning.

JEL: M300, M390.

1. Introduction

One of the important thinkers in the world of marketing Sun Tzu referred that the time to have a victory in hand, it should not be reused the same technique, but it should evaluate the circumstances and diversify methods to continue to infinity. Within the theory of resources and capabilities, the brand is considered as an added value that allows companies to generate a competitive advantage. In this way, it is that it becomes a powerful weapon that can be used as an effective strategy. Globally, companies are making efforts to meet the needs of customers by offering a lot of products. This action can be defined as an expansion of product line, product proliferation or increase the variety of products (Connor, 1981).

Following the contributions of war, Vargas-Hernández, and Bojorquez Bojorquez (2014) within industries, companies develop strategies for their existence, among which are:

- A. Implementation of diversification.
- B. Product structures.
- C. Adapt products to customer needs.

The company may consider the proliferation of products as a development strategy for the share in the market that will allow its brand to have a dominant position (Laurent, 2014) and in turn can generate business growth.

2. Background and limitations

A. Background

In studies conducted in the framework of strategic management, it can find different theories that allow analysis of the growth of the company. This article primarily will discuss the theory of resources and capabilities, which is focused mainly on making sense and use to the resources available to the company, which are used for the generation of strategies. These resources, in turn allow the differentiation of companies within an industry where success or failure is the result of the correct or incorrect management of its own resources.

The best way to implement a strategy, it should take the actions taken by competitors into account, because, as mentioned above, the companies have different resources that allow them to compete. Thus, observing the behavior, it gives the company a generic vision of actions to take to compete with the resources it currently has and can apply them differently as charged by its competitors (Garces and Fong, 2014). Castañas and Helfat, (1991), mention that this theory thrives on agency theory mainly because economic incentives are the main influence on the development of capacities and utilization of organizational resources.

When used efficiently the resources of the company based on production, they are effective until such time that rival firms manage to make uniformity in that characteristic that once provided a differentiation. This is the importance of applying resources effectively and continuously to maximize business income (Fong, 2005). Teece, Pisano and Shuen (1997), introduced the dynamic capabilities theory, which mainly consists of that ability of organizations to adapt and be able to change at the right time.

Focused on the main theme of this article, the relationship with the theory rests on the point that diversification is considered as the use of internal company resources to strengthen one of its intangible resources. In this case the branding, and implementation of strategies can be done in any area of the organization.

B. Limitations of the study

When is made a case study of a company that is now known worldwide, it is faced the reality of the lack of internal information, such as sales data, which could serve as evidence to prove the facts embodied in words. So, this analysis intends to make the implementation of strategic management theories and show that in reality, these are theories that allow maintaining a comprehensive concept of implementation in the business environment.

This paper tries to answer the question: Is the product diversification strategy to position a brand and in turn, these two actions allow company growth?

It is important to know that a company has the opportunity to develop outside its everyday environment. So, a strategy must always go hand in hand with growth of it. It can be taken as a starting point vertical integration. Vertical integration refers to the joint venture in order to achieve economies of scale that may involve opening up opportunities in new markets. It is necessary to evaluate the structure, organizational control and bureaucratic costs; and product diversification, which involves creating innovative products, different from the existing, i.e. they are not similar or may have a certain relationship. These two concepts belong to the variety of strategies that can be used to create advantages and company growth (Vargas-Hernandez et al. 2014).

In Figure 1, it can be analyzed that an applicable strategy would be through diversification of products and brand positioning to achieve new markets that allow the organization to **increase its segments and expand into new territories.**

Assumption of study:

Under the assumption that the strategy is applicable for product diversification in order to position a brand and this in turn generates business growth given the need to satisfy a portion of larger market which it initially had. As part of **this** study, although the literature presents its claims to such events, **most** cases usually leave aside the issue of a good brand management for the growth of the

company, despite being regarded as an intangible asset that generates product or service recognition in the minds of consumers.

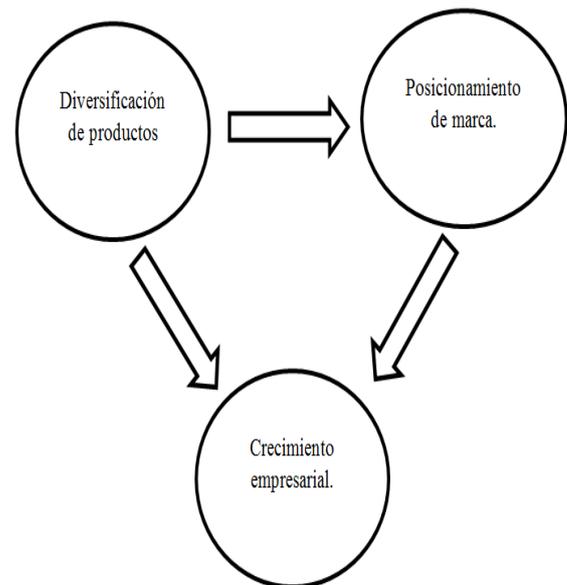


Figure 1. Business growth.
Sources: Own elaboration.

It can be inferred that a product or service generates an acknowledgment by the consumer to the extent that it is in different forms and functions within a market segment which frequents. When a company decides to diversify its products, it must have a broad vision that allows it to determine at that time what the consumer is willing to buy, not necessarily to create a new or different product, making product reengineering or implementing new technologies for development is what makes it different (Mazzucato, 2002). Bowman, creates one based on the positioning strategy which is named "The clock strategy Bowman" for the sole purpose of generating a competitive advantage based on what customers want or need at that time, offering differentiation from its competitors by through improved its product.

The clock is intended to represent the different market positions that customers have different requirements in terms of perceived value and cost constraints. Therefore, primarily it seeks to demonstrate the actions mentioned as a cycle of cause and effect, which can be taken by companies to obtain positive results in the market in which it operates, as it can be shown in figure 2.

3. Research objective

To analyze the current situation of an efficient company through its history of business growth that meets the appropriate characteristics to represent the cases of the different theories that comprise a part of the framework of strategic management, to demonstrate the impact of diversification of products in brand positioning, and this in turn foster business growth.

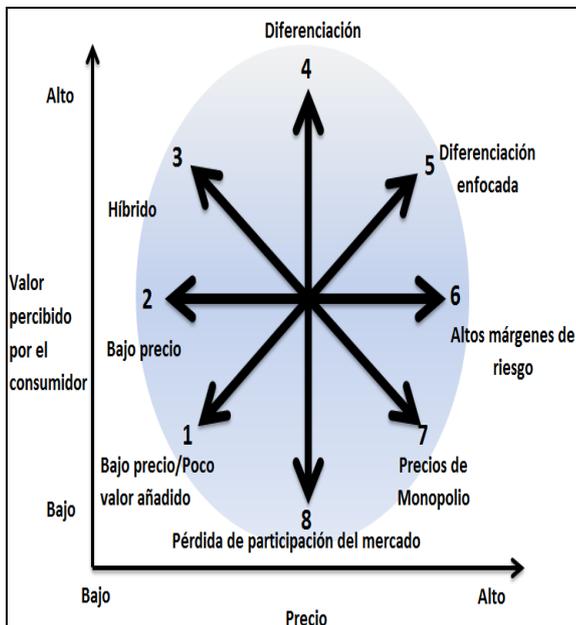


Figure 2. Clock of the strategy of Bowman.
Source: Bowman & Faulkner, (1997)

4. Literature review

A. Concepts

It is important to create the conceptualization, to allow pointing out ideas and managing an appropriate approach in the study. Therefore, this conceptualization begin by defining product diversification from the concept of strategy is to make changes in the product in order to enter new markets and generate economies of scale or scope (Vargas-Hernandez et al. 2014). Within three types of diversification, but especially the two that approach that is diversification enabling entry into new markets without changing the production base it has and the diversification that allows the extension in the same market is enhanced but with a different technology.

The brand from the economic point of view is an "added value" (Sierra, 2009); while Healey (2008) defines it as a promise of satisfaction and Keller (2008) considers the choice of a name, logo, symbol, or characteristics that distinguish one product from another. Positioning a brand is to give a place in the minds of consumers, so that this relates the image with different characteristics, such as quality, which is a fashion, prestige, income etc. From this, it gets brand recognition in the way it meets the expectations expected by the customer, which makes it important to relate the diversification of products with the brand positioning.

Business growth from the point of view of Penrose is the growth rate of the company that is primarily due to the ability of this, it has to manage its capabilities that currently account (Penrose, 1959). She defines the company as a set of tangible and intangible assets, which are as productive in making decisions management (Penrose, 1959).

B. Theory

Based on the research object, literature theory of resources and capabilities, which rises to a study of the strategy seen from inside companies, the pioneer of this theory is Penrose (1959), in his work *The theory will of the growth of the firm*. In this book, she sustains being of paramount importance that companies must assess their internal resources, as they are the ones that allow them to growth in the market.

The diversification strategy to create a competitive advantage in a market, (Vargas et al, 2014) consists of three points:

- 1) enter the market with new products,
- 2) extend in the same market with new products, and
- 3) enter new markets based on a different area of technology.

By the basic theory of economics and marketing with contributions from Michel Porter (1981) based on a strategy, he conceptualized three strategies to make it to its customers compared with its competitors. These three main groups of strategies are:

- 1) cost leadership strategy,
- 2) differentiation strategy and,
- 3) focus strategy.

This paper mainly focuses on differentiation strategy to provide customers with a product that is valuable and different than others. When a product has such features, consumers are willing to pay a higher price. Some of the features are quality, design, luxury, reputation, etc. Generally, these characteristics are related to the brand positioning. In most countries, the main strategy is to recognize a product based on quality, service, presentation and design. Hence the brand goes beyond a simple name (Sierra, 2009).

In one of his theories, Peng (2012) mentions that this differentiation can be achieved through a VRIO framework which is to create a valuable resource for the company consisting of a value, rarity, difficult to imitate and has an organization of resources and capabilities that the company owns. When the frame is applied to VRIO product diversification, it can be possible to get the company to have competitive advantage for longer time that generates new products, because competitors can hardly imitate.

The view based on resources (RBV) indicates that the advantage based on the results, is an efficient combination of resources and capabilities of the organization. It is found it difficult to imitate costs and competition when it tries to do so (Barney, 1991). There is no doubt that these factors are important for creating competitive advantages but it must considered that there are external factors that directly influence the decisions of the companies.

Paradigms in strategic management were basically consist between the paradigm of competitive forces approach (Porter, 1981) and from the resource-based (Penrose, 1959) perspective. The first consists in that the shares of a company can open paths of competitive advantage in a market and the second stands out mainly that each organization may be unique and competent if it knows to manage its resources. Pure skills (Collis, 1994), are mainly obtained from the proper implementation of the strategies that will allow the organization to be more efficient as it has more resources, but it must not lose sight that lies within an environment in which are more influential factors than internal ones. These are competition, market, imitation, etc.

Although Alchain and Dmsetz (1942) differ with the view of Collins, noting that efficient production depends not only on the heterogeneous resources owned by the organization, but is finding the relationship in which the maximization of both to have a more precise application within strategies that the organization chooses to apply. To the extent that capabilities become distinctive across organizations, allowing them to have a competition in which rivals have difficulties to imitate, and this difference is mainly based on the experience acquired by the staff within the organization as far as they have the ability to create, acquire and store this knowledge so that it can be transferred only within the organization (Barney, 1991).

Therefore, capabilities within an organization are paramount for strategies that allow them to evolve and stay within competition, as mentioned above, without any slope to be imitated by other organizations (Collis, 1994). But, is it possible that the resources and capabilities enable the organization to be competent during the life? Maybe it's not the only means by which organizations can survive before a competent world. It must be considered various factors that may end with their strategies, such as environmental threats and weaknesses within it, because as it might be expected. Hardly an organization is perfect, and for more resources and capabilities they may have, if its weaknesses are bigger, will not have the ability to generate strategies that allow it to survive in the market (Peng, 2012).

Generating a value chain within the organization can take advantage of opportunities for growth and differentiation, considering as a value chain to all business activities in which it develops, produces and markets products and services (Barney, 2008 p. 81). In his virtuous circle, Penrose notes that at the time the company divides the work or specializes in it, the growth of the company is generated and thus can exert diversification. Taking into account that diversification may be related or unrelated to the activities of the company, it is critical that strategies can be met with capabilities that the company has used.

5. Research method

Case's unique design is used, with the aim of generating a broad analysis of the concepts of understanding in different areas: business unit, its brand and product diversification by level. Some data were taken from the Mexican Automotive Industry Association (AMIA) reflecting the niche market of the sale of motorcycles in Mexico and exports and imports worldwide, with the objective of analyzing the desirability and scope of the company Ducati as well as data of the same company on its growth in recent years, based on the implementation of the diversification of its products. It should be noted that it is a qualitative study.

6. Beginnings and evolution of the company's strategy of diversification

Within the automotive industry, there is an important ramification: motorcycles. In the global market, the leading motorcycle brands that are competing are BMW, Harley-Davidson, Ducati, Suzuki, Keeway, Yamaha, Caravel, BRP and Honda, brands that stand out for having a variety of products and sale of complementary products for motorcycle industry as well as accessories, clothing, among others.

In this article, the focus is on analyzing the company Ducati, mainly for its history and unique desmodromic distribution system, VRIO value that remains within the career motorcycle market as a pioneer. Ducati Motor Holding S. p. A, is an Italian company founded in 1926. Its Italian style is present in all its bikes, retaining a timeless style make for a company that can hardly be achieved. Superbike, Monster, Streetfighter, Hypermotard, Multistrada and the new Diavel are represented in more than 60 countries around the world, the dream of the most passionate riders (Ducati, 2015). Starting with activities producing components for radio transmitters via an industrial scale, it opens its doors in the market.

A product "Manens capacitor" designed for radio apparatus, immediately generating patents that provided an expansion of the company, generating international recognition (Ducati, 2015). Like any company Ducati begins as a small company born of an idea, within a family. Since its inception the brand bearing his name "Ducati" brand that since its inception has a strong meaning based on innovation, quality and prestige. It is not until June 1935, the construction of a factory, which was the main objective of creating an industrial and technological center, begins. In parallel Ducati began its overseas expansion in order to create direct service and assistance to its worldwide client's greater weight (Ducati, 2015). The product scheme shown in Figure 3, which is the first structure.

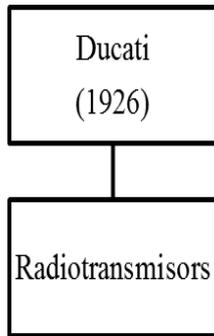


Figure 3. Ducati Network in 1926

A. The diversification tool for growth

World War II destroyed its facilities in Borgo, but the Ducati brothers during the war studied and designed new products so that they could offer after the war. In September 1946, they designed their first auxiliary motor bike "Cucciolo", which became famous worldwide, becoming later on a miniature motorcycle. The Ducati brand therefore consolidated in the field of mechanics. Anticipating the results of a fatal disaster, this strategy gives them the main tool of survival, addressing the needs of a devastated market. This event becomes the future of the world, because it drives companies to implement their creativity and use their resources and skills to rebuild their brands and products.

During the 1952-1958 periods, Ducati were beginning with the manufacture of motorcycles, with a special feature that makes them distinctive from the others, the dermodr6mic system. In 1969, when the competition begins to be introduced into the market, as a defense, Ducati starts updating its models enlarge the plant through new productive areas, where the first two-cylinder racing and road bikes would be built. Figure 4 compared with Figure 3, it can be observed how Ducati

starts to diversify its products, maintaining its brand, now with a different concept, but still retains its prestige due to the diversification of products that allows it start its business growth while expanding its plant as the result of increasing its portfolio of products.

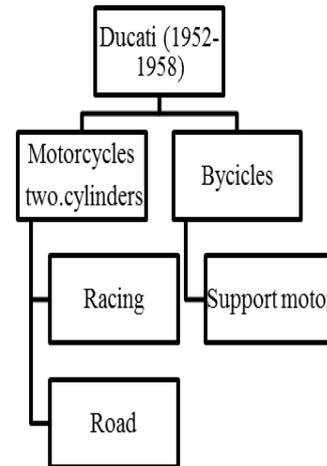


Figure 4: Ducati network 1952-1958.

Ducati began to make the application of intangible resources owned, entering the market with new products that have the effect of giving greater market presence of its brand. In 1983, the company was purchased by the Group Cogiva. Therefore, Ducati grows its market segment, because it begins to introduce new models. In the 90's Ducati begins with a transformation from being a metallurgical company to a company with a complete range of products, and selling motorcycles, accessories and clothing. For 2000 increased consolidation in the motorcycle market worldwide, while continuing to innovate in their products.

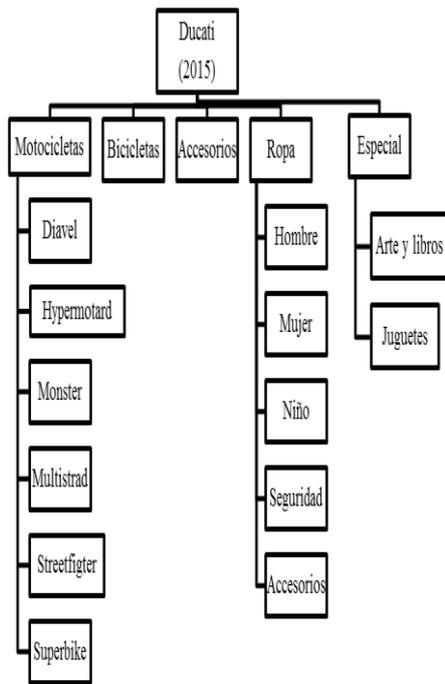


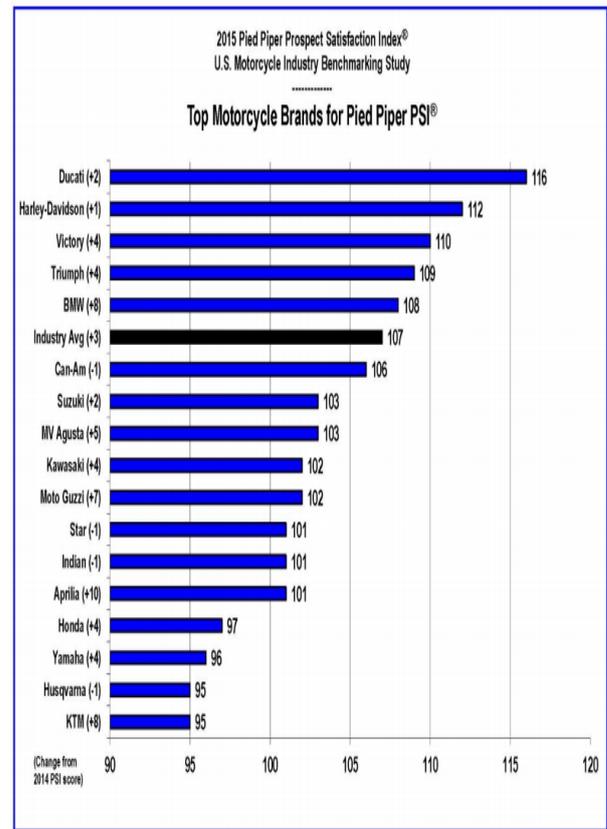
Figure 5. Ducati network in the year 2015.
Source: Authors.

7. Brand recognition

Ducati ranks first brand worldwide recognition according to statistics presented by Pied Piper (2015). It is Ducati brand Top Hotels in 2015, recognized by consumers and pointing to be the brand with the best overall improvement, registered with a Benchmarking study that studies the behavior of buyers by brand motorcycles. In graph1 it can be seen that Ducati has a positive growth of 2, because consumers have in their mind the positioned brand. In this study, it was awarded this recognition because it offer "Test" rides to convince the customer to buy the product (Pided Pieper, 2015).

Is it a result of the diversification of its brand its success in the market? It can be deduced that there is sufficient statistical evidence that it is probably the success because Harley-Davidson, direct competition from Ducati for the top spot in brand recognition, has a similar diversification which has Ducati. Most however, its intangible resource it is its dermodromic system allows it to continue in its brand's rise because it is a difficult value added, rare, and difficult to imitate and its organization of resources.

To strengthen its brand, according to the study by Tawfik & Leenen (2001), Ducati has a section called "World Ducati" where it can be found all kinds of products and services related to motorcycle, which are divided into six categories:



Graph 1. "Top of motorcycle brands".

Source: Pied Piper Prospect Satisfaction Index® U.S. Motorcycle Industry Benchmarking Study (2015).

- Racing.
- Advertising.
- Ducati Desmo Owners Club (DOC).
- Events.
- Ducati Museum.
- Ducati University (management and technical staff give lectures at universities World regarding their products and polytechnics).

Thus, Ducati is responsible for positioning its brand and creates the bond of trust supported by the various products and services that currently has.

8. Business growth as a result of two factors

Ducati covering market begins to grow with its appearance in Mexico, because in 2012, Audi Group acquired the brand Ducati to be sold in Mexico. Growth has been based on its new products launched. One of them is the new Monster 821 and Monster 1200 (Ducati, 2015). Through reengineering product is that it manages to maximize profits. By the time Ducati does not enter in the statistics provided by AMIA of Italian brands sold in Mexico.

Table 1 shows the import of new motorcycles by country of origin in 2011 to the first half of 2014.

Table 1. Imports of new motorcycles by country of origin."

IMPORTACIÓN DE MOTOCICLETAS NUEVAS POR PAÍS DE ORIGEN (Unidades)										
Origen	Brasil	Canadá	China	India	Italia	Japón	Taiwán	EE. UU.	Otros	Total Global
2009	8,495	1,271	77,398	3,220	548	10,353	730	11,440	4,439	117,894
2010	10,438	281	82,198	7,320	637	7,854	578	7,329	2,821	119,456
2011	8,072	331	154,609	13,712	1,311	5,878	771	10,355	5,051	200,090
2012	1,974	310	194,429	22,714	1,228	6,468	992	11,199	5,344	244,658
2013	840	265	164,470	26,525	1,229	5,895	645	13,787	7,279	220,935
ene-jun 13	346	143	73,371	13,517	743	2,469	232	4,875	3,791	99,487
ene-jun 14	760	118	94,482	22,082	699	3,329	380	5,942	3,135	130,927

Source: Elaborated by AMIA with data of Administración General de Aduanas

The intention of presenting this information is to enhance that Ducati has a growth opportunity focused in 2012 because the Italian brands in Mexico show a negligible percentage in the market for Mexican motorcycles. It is a point of action which Ducati has already begun to work.

All countries have shown a decrease in imports except for China. But promptly it can be analyzed the participation of Italian brands, who are entering the Mexican market. In graphs 2, it is shown that Italy has a share of 1% in Mexico, the reason why it tries to enter the market with new products and with its recent partnership with Audi Group.



Graph 2. Percentage of share market of Italy in México.

Source: Own elaboration with data of Administration General de Aduanas

It will now be analyzed the main countries in which Ducati has worldwide sales. In Table 2, it can be seen that in 78% of countries where it sells its products, for 2013 Ducati had significant increases, while losing 22% of sales in other countries, which are below 20% decrease.

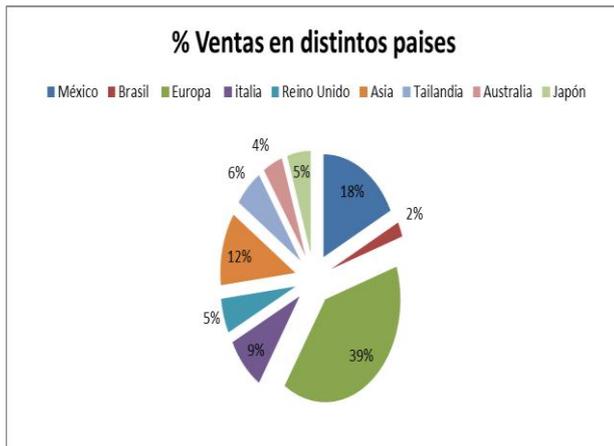
Table 2. Sales growth at Ducati.

Country	% of sales growth in 2013	Units sold in 2013
México	8%	8804
Brazil	74%	1174
Europe	-3%	19743
Italy	-14%	4284

United Kingdom	16%	2742
Asia	11%	5787
Thailand	22%	3057
Australia	13%	2132
Japan	1%	2558

Source: Own elaboration with data of Ducati 2015.

In graph 3, it can be seen the percentage of sales that Ducati has in each country, which represents 2% increase in sales for 2013.



Graph 3. Percentage of sales of Ducati by countries.
Source: Own elaboration with data from Ducati 2015.

Sales data show that the increase is significant in 2012 from January-December period to the year 2013. Based on the strategic alliance with Ducati Audi Group, with a vision of business growth, denotes favorable growth in revenues of Audi Group since 2013. Its revenue rose to 49 880 (48 771) million Euros (Audi Group, 2014). Table 3 shows the production of motorcycles for Audi Group, comparing the period 2012 to 2013 period.

Table 3. Production of motorcycles.

Motorcycle production

	2013	2012 ¹⁾
Naked/Sport Cruiser (Diavel, Monster, Streetfighter)	20,777	8,171
Dual/Hyper (Hypermotard, Multistrada)	16,336	2,608
Sport (Superbike)	7,905	4,955
Ducati brand	45,018	15,734
Motorcycles segment	45,018	15,734

In the first period is shown 2012 data for the period from July to December is due to consolidation with Ducati was consolidated in July 2012.

Source: *Estado financiero Grupo Audi 2014*, p-26.

The year 2012 meant a drop in the motorcycle segment, but in 2013, it was observed a significant increase thanks to the appearance of Ducati, as a new brand on the undercard of Audi and thanks to product diversification (Audi Group, 2014).

9. Analysis of results.

Ducati, a company with a history to recognize, hits the theory and demonstrates that it is possible unification of intangible resources for business growth, starting in a completely different market that penetrates today. It shows that his vision capability was exploited from the outset. Ducati does not lose the opportunity to enter the market showing an area of opportunity, and simultaneously sets the standard to be followed by its competitors.

Moreover, it gets to keep its status within the market for five years, with a sales increase of 2% per year, which may seem small but is significantly good. Ducati constantly is applying reengineering of its products, improving what was the best product for today where the circumstances have changed, conserving resources if that is the main dermodrómico system.

10. Conclusions

Based on the comparisons made in the three action points of this essay, it can be deduced that the case study provides important data that allows identifying the correlation between product diversification and branding. These in turn are factors important for business growth due to emerging needs to diversify production, such as expanding existing facilities or opening new plants to supply the needs of production.

The brand as a competitive advantage handled with proper management, provides a positioning in the minds of consumers and thus reinforces the market segment to which it is addressed. It certainly is a strategy that provides growth of framework VRIO companies. This is why it should be considered as an intangible resource with a high growth potential for the company.

Product diversification is certainly to encompass the market, either horizontally or vertically. It can avoid the lag in the company, because it is in a world where changes are the order of the day. It is not a static world. So companies should consider growth as a basic need and a way to survive as a competitive tool, identifying those actions carried out by competitors and to a continuous improvement.

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Relative technical efficiency of commercial banks in India using data envelopment analysis

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Abstract:

An efficient banking sector is an essential precondition to increase the economic level of a country. Competition among the financial institutions, constant increasing expectations of the business partners i.e. consumers, stake holders etc, innovation in technology, introduction of new financial instruments and the new banking regulation and policies are creating immense pressure to perform better than others in the market. Therefore, analysis of bank's efficiency is important from the point of view of investors, creditors, and the government. It is also useful from the point of view of the bank's management so that they can judge their own performance and compare it against other banks.

This study attempts to examine the efficiency of 49 Indian commercial banks by employing Data Envelopment Analysis (DEA), a nonparametric technique which has been used successfully in measuring the efficiency of banks and other organizations (Drake and Howcroft, 1994). The study presents the results of the analysis of technical and scale efficiency of 49 selected banks for financial years 2006-2009. It also aims at identifying the relatively best performing banks and the relatively worst-performing banks. It also seeks to identify banks' efficiency scores using CCR and BCC model with scale efficiency. Also it classifies the leaders, moderate performers and laggards among the sample banks. The impact of scale on the efficiency scores has also been assessed by using Constant returns to scale and variable returns to scale DEA models. It also tries to determine whether increasing, constant or decreasing returns to scale (RTS). The results of the study may be useful to investors, creditors, the government and the management of the banks themselves in assessing their performance.

JEL classification: C44, C61, G21, M21

Key words: DEA, Efficiency, Banking sector, performance, India

1. Introduction

The measurement and evaluation of performance is a fundamental aspect of managerial planning and control. The most difficult part of performance measurement is the determination of appropriate measures to provide an overall ranking of performance. Although a ranking can be obtained with a single measure of performance, this is almost always insufficient as it fails to capture the relevant dimensions of performance needed for planning and control, and provides a valid excuse for the claims of underperforming units that the measure does not fully reflect their activities and results.

Benchmarking is the process of comparing one's business processes and *performance metrics* to industry bests and/or *best practices* from other industries. Dimensions typically measured are quality, time and cost. In the process of benchmarking, management identifies the best bank in their banking industry, or in another industry where similar processes exist, and compare the results and processes of those studied (the "targets") to one's own results and processes. In this way, they learn how well the targets perform and, more importantly, the business processes that explain why these firms are successful.

To introduce efficiency and competition into the financial system, Reserve Bank of India (RBI) initiated many reforms like deregulation of interest rates, entry deregulation, branch delicensing and permitting public sector banks to liquidate their equity up to 49% of their equity in the capital market. These factors created competitive pressure in the banking industry, which results in the greater use of ATMs increase in housing and consumer credit, more transparent balance sheet, product diversification. It has also raised concerns of performance of Indian banking system especially the non-performing assets. In the current atmosphere, the Indian banks are under pressure to make credit more affordable and expand their lending portfolio to reverse the slowdown and spur growth. Effectiveness of any institution is measured by efficiency and competitive edge, which is the key to its existence and survival. Therefore, the analysis of bank performance is of crucial importance to the markets, government and society at large. Indian banks are venturing on global expansion, and many foreign banks are looking at India, Indian banking is constantly trying to achieve international benchmarks with best practices. The demarcation between the private and public sector is fast hazing as all the banks are improving their efficiency and adapting new technologies.

Performance evaluation of financial institutions, particularly commercial banks, has received increased attention over the past several years (Seiford and Zhu, 1999). Also, Researchers can only choose a method to evaluate performance that has the least amount of drawbacks for that study's particular situation. Therefore, a viable method for effective evaluation of performance is aimed at providing solutions for issues with multiple variables and targets. There is a substantial body of literature discussing different research methods applied to performance evaluation. These methods include: multivariate statistical analysis (Huang, 1986; Fielding et al., 1985); data envelopment analysis (Seiford and Zhu, 1999; Lin, 1998; Grosskopf and Valdmanis, 1987); analytic hierarchy process (Lin, 2000; Shih, 2000); fuzzy set theory (Shih, 2000; Tsai, 2000); grey relation analysis (GRA) (Tsai, 2000); balanced scorecard (Maisel, 1992); and financial statement analysis (FSA) (Collins, 1980; Pantalone and Platt, 1987; Espahbodi, 1991). Some methods were simply borrowed from the domain of industrial study and applied to commerce. Some are still in the embryonic stage. Each of the above seven methods can be independently applied to evaluating performance. However, no one of them is perfect. Researchers can only choose a method to evaluate performance that has the least amount of drawbacks for that study's particular situation. Therefore, a viable method for effective evaluation of performance is aimed at providing solutions for issues with multiple variables and targets and found DEA suitable for the same.

2. Data Envelopment Analysis (DEA)

DEA has grown into a powerful quantitative, analytical tool for measuring and evaluating performance and its efficiency. Data Envelopment Analysis (DEA) is extended application of Linear Programming where the frontier is assembled on a piecewise basis from the Decision-making units (DMUs). It involves the use of Linear Programming methods, it is a non-parametric method of measuring the efficiency of a decision-making Unit (DMU) such as a firm or a public sector agency with multiple inputs and multiple outputs in the absence of market prices, Where DMU are non-market agencies or homogeneous units like schools, hospitals and courts which produce identifiable and measurable outputs from measurable inputs. It was first introduced in the Operations Research Literature by Charnes, Cooper and Rhodes in (EJOR, 1978). The original CCR model was applicable only technologies characterised by Constant returns to scale globally and Banker, Charnes and Cooper (BCC) in (Management Science, 1984) extended the CCR model for technologies that exhibit variable returns to scale. In past years, mythological contributions from a large number of researchers accumulated into a significant volume of literature around the CCR-BCC models and as a result the generic approach of DEA emerged as a result oriented alternative to regression analysis for efficiency measurement

3. Problem description

We are hearing and observing lot of banking failures globally the failure are due to poor banking performance and deployment of the fund at inappropriate instruments. Hence we have chosen inputs and **outputs** which affect banking performance to great extent. Also there is limited literature and research study available on latest banking performance measures on Indian banking. In our study we have taken 49 Indian commercial banks as sample and we have considered data for 2006-9.

4. Methodology

In the present context, our DMUs are Banks. The sample size is 49. Further we have categorised the banks into small, medium and large banks based on their profitability. Large banks are those whose profitability are more than 1000 cr, medium banks are between 300-1000 cr. and small banks below 300 cr. Hence out of 49 banks 11 banks are classified as large banks and 23 are medium banks and balance 16 is small banks.

Technical efficiency score is total weighted sum of output divided by the total weighted sum of inputs. In this model, the efficiency is measured by the ratio of weighted outputs to weighted inputs thus the efficiency of the banks will be measured as to how efficiently they are able to utilize their inputs.

Efficiency = weighted sum of outputs / weighted sum of inputs

$$= \sum u_i y_i / \sum v_i x_i$$

Where, u and v are the weights for the outputs, y (y_1, \dots, y_n) and inputs, x (x_1, \dots, x_n) respectively.

The best DMU is assigned an efficiency score of 1 and all other banks are assigned efficiency scores between 0-1 and 0-100 per cent. A bank with a score of less than 1 is deemed to be technically inefficient relative to the efficient banks. The efficiency score indicates the performance of banks that how well they convert inputs into outputs. For example, if a bank has a technical efficiency score of 70 percent, it means that it would have to reduce its inputs by 30 per cent to become as efficient as its reference set i.e., those banks with 100 percent scores.

Technical efficiency can be decomposed into "pure technical" and "scale" efficiencies. This requires the estimation of two DEA models- one with constant returns to scale (CRS) and the other with variable returns to scale (VRS). The models with constant returns to scale are known as CCR model as it was proposed by Charnes, Cooper and Rhodes (1978) and the model with variable returns to scale is known as BCC for Banker, Charnes and Cooper (1984) If there is a difference in the two technical efficiency scores for a particular bank, then this indicates that the bank has scale inefficiency.

Let the CCR and BCC scores of a DMU be θ_{CCR} and θ_{BCC} respectively the scale efficiency is defined as.

SE = $\theta_{CCR} / \theta_{BCC}$. SE is not greater than one.

. For a BCC-efficient DMU with CRS characteristics, i.e. the most productive scale size, its scale efficiency is 1. The CCR score is called the (global) technical efficiency, On the other hand, BCC expresses the (local) or pure technical efficiency (PTE) under VRS Using these concepts. Relationship in equation (i) demonstrate a decomposition of efficiency as

$$\theta_{CCR} = \theta_{BCC} * SE$$

$$TE_{CRS} = TE_{VRS} * SE$$

Technical eff (TE) = (PTE) X (Scale eff (SE)).

The CRS technical efficiency measure is the product of pure technical efficiency and scale efficiency. The scale efficiency measure does not indicate whether a bank is operating at increasing returns to scale (DRS). This may be determined by imposing non-increasing returns to scale to the DEA problem. An advantage of DEA is that it does not impose any preconceived structure on the data in determining the efficient firms, i.e. it does not assume a particular production technology or correspondence.

5. Inputs and Outputs

DEA modelling allows researchers to select the input & outputs in accordance with a managerial focus. In this paper Inputs are no. of employees, equity funds and operating expenses and the Outputs are Interest Spread, Non interest income, Advances, Net profit and Deposits.

6. Literature Review

DEA has also been used in a number of bank studies. Some of the important studies among the attempts are those by Sherman and Gold (1985) used DEA to evaluate bank branch operating efficiency for a savings bank in the USA with 14 branch offices. They located inefficient branches by explicitly considering the mix of services provided and the resources used to provide these bank services. Vassiloglou and Giokas (1990) used DEA to assess the relative efficiency of bank branches at the Commercial Bank of Greece. Drake and Howcroft (1994) used DEA to assess the relative efficiency of the branches of a UK bank.

Avkiran (1999a, 1999b and 2000), Sathye (2001, 2002) and Sturm and Williams (2002). All have applied Data Envelopment Analysis (DEA) and with the exception of Sathye. Avkiran (1999a, 1999b) and Sturm and Williams (2002) show that technical efficiency has improved in the 1980s but declined in the early 1990s. Using data for 29 banks in 1996, Sathye (2001) reports that allocative inefficiency is lower than technical inefficiency. Applying Malmquist Productivity Indices (MPI), Avkiran (2000) finds productivity progress over

time in Australian banks, however, Sathye (2002) and Sturm and Williams (2002) show productivity regress. Mukherjee et al. (2002) made an attempt to explore technical efficiency and benchmark the performance of 68 commercial banks using DEA. For this they utilized the data for the period 1996 -99. It has been observed that in India, PSB's are more efficient than both private and foreign banks. Also, the performance of PSB's improved over the study period. Besides this publicly owned banks were rated uniformly in terms of self-appraisal as well as peer- group appraisal. Reddy (2005) examined the competitiveness of Indian scheduled commercial banks in the deregulated period 1996-2002. He used a sample of 80 banks and used the data envelopment analysis for analyzing efficiency change, scale efficiency and pure technical efficiency change. He found that there is an increase in technical efficiency and scale efficiency of most of the banks. Sanjeev (2006) studied efficiency of private, public, and foreign banks operating in India during the period 1997-2001 using data envelopment analysis. He also studied if any relationship can be established between the efficiency and non-performing assets in the banks. He found that there is an increase in the efficiency in the post-reform period, and that non-performing assets and efficiency are negatively related. Kumar and Gulati (2007) studied the technical efficiency of public sector banks in India using two data envelopment analysis models, viz. the CCR model and Andersen and Petersen's super-efficiency models were used. The analysis was performed on a cross-section of twenty seven public sector banks in the year 2004-05. Sahoo et al. (2007) examined the productivity performance trends of the Indian commercial banks for the period: 1997-98 – 2004-05 by using data envelopment analysis. The higher cost efficiency accrual of private banks over nationalized banks indicated that nationalized banks, though old, did not reflect their learning experience in their cost minimizing behavior due to X-inefficiency factors arising from government ownership. The survey of literature provides that owing to the differences in sample size specification of input and output variables and the period of study there has been a striking contrast among the findings of different studies. Therefore, some caution needs to be exercised when comparing the results of such studies with the present one that includes homogeneous groups of banks operating under same regulatory environment and have similar managerial objectives.

7. Analysis, Findings and Results

In this section, comparison of a set of Public Sector Undertaking and Private Banks with respect to efficiencies and returns to scale has been done. The CCR, BCC and scale efficiencies and returns- to-scale characteristics of each bank are listed in table1. We used the input oriented models in measuring efficiency.

Table 1: Result of CCR/BCC formulation

Sr	Banks	CCR(CRS) Efficiency Score	BCC(VRS) Efficiency Score	Returns to Scale	Scale Efficiency
PSU-1	State Bank of India	0.87	1	Increasing	0.87
PSU-2	State Bank of Bikaner and Jaipur	1	1	constant	1
PSU-3	State Bank of Hyderabad	1	1	constant	1
PSU-4	State Bank of Indore	1	1	constant	1
PSU-5	State Bank of Mysore	0.86	0.87	Increasing	0.99
PSU-6	State Bank of Patiala	1	1	constant	1
PSU-7	State Bank of Travancore	1	1	constant	1
PSU-8	Allahabad Bank	0.91	0.91	constant	1
PSU-9	Andhra Bank	0.94	0.94	constant	1
PSU10	Bank of Baroda	1	1	constant	1
PSU11	Bank of India	1	1	constant	1
PSU12	Bank of Maharashtra	0.95	0.96	Increasing	0.99
PSU13	Canara Bank	0.94	1	Increasing	0.94
PSU14	Central Bank of India	0.97	1	Increasing	0.97
PSU15	Corporation Bank	1	1	constant	1
PSU16	Dena Bank	0.97	0.97	constant	1
PSU17	IDBI Bank Ltd.	1	1	constant	1
PSU18	Indian Bank	0.93	0.97	Increasing	0.96
PSU19	Indian Overseas Bank	0.92	0.93	Increasing	0.99
PSU20	Oriental Bank of Commerce	0.95	0.98	Increasing	0.97
PSU21	Punjab and Sind Bank	0.93	0.93	constant	1
PSU22	Punjab National Bank	0.99	1	Increasing	0.99
PSU23	Syndicate Bank	1	1	constant	1
PSU24	UCO Bank	1	1	constant	1
PSU25	Union Bank of India	0.98	1	Increasing	0.98
PSU26	United Bank of India	0.81	0.82	Increasing	1
PSU27	Vijaya Bank	0.91	0.92	Increasing	0.99
Pvt.-1	Axis Bank	1	1	constant	1
Pvt.-2	Bank of Rajasthan	0.77	0.78	Increasing	0.98
Pvt.-3	Catholic Syrian Bank	0.88	1	Increasing	0.88
Pvt.-4	City Union Bank	0.94	0.98	Increasing	0.96
Pvt.-5	Development Credit Bank	0.73	0.83	Increasing	0.87
Pvt.-6	Dhanalakshmi Bank	0.74	0.91	Increasing	0.82
Pvt.-7	Federal Bank	1	1	constant	1
Pvt.-8	HDFC Bank	1	1	constant	1
Pvt.-9	ICICI Bank	1	1	constant	1
Pvt.10	IndusInd Bank	0.97	1	Increasing	0.97
Pvt.11	ING Vysya Bank	1	1	constant	1
Pvt.12	Jammu & Kashmir Bank	1	1	constant	1

Pvt.13	Karnataka Bank	0.94	0.97	Increasing	0.97
Pvt.14	Karur Vysya Bank	0.98	0.99	Increasing	1
Pvt.15	Kotak Mahindra Bank	0.96	0.97	Increasing	1
Pvt.16	Lakshmi Vilas Bank	0.87	1	Increasing	0.87
Pvt.17	Nainital Bank	1	1	constant	1
Pvt.18	Ratnakar Bank	0.9	0.93	Increasing	0.97
Pvt.19	SBI Comm. & Intl. Bank	1	1	constant	1
Pvt.20	South Indian Bank	0.89	0.9	Increasing	1
Pvt.21	Thailand Mercantile Bank	0.9	0.9	constant	1
Pvt.22	Yes Bank	1	1	constant	1
Total=49 Mean		0.95	0.97		0.98

Source : Authors calculations

The CCR results listed in col.3, table 1 show that the PSU banks performed worse than the private banks when evaluated on the constant returns to scale assumption associated with this model, as evidenced by the fact that 8 out of 27 PSU banks were below average compared with 8 out of 22 Private Banks. The banks where CCR efficiency is 1 are the best performers and are known as technically efficient and furthermore they are referenced for evaluating inefficient banks.

The BCC model assumes variable returns to scale (VRS) by considering the sizes of the utilities. This formulation ensures that similar sizes utilities are benchmarked and compared with each other. In this model, 27 banks are accorded efficient status in addition to the CCR efficient banks-which retain their previous efficient status. The BCC scores exhibit that 8 out of 27 PSU are below average while the private banks have 6 out of 22. The results presented in the table 1 show that 40.82% utilities appeared as efficient utilities while 59.18% utilities showed inefficiencies of varying degrees. .

Out of 49 Banks, 21 are technically as well as scale efficient. It means that they are utilizing the resources most efficiently and also operating at optimum size.

The scale efficiency as defined by the ratio CCR/BCC exhibits large differences between two groups. 5 Out of 27 PSU banks and 7 out of 22 pvt. Banks are below average. This may mean that the PSU's are in advantageous condition compared with those in the Pvt. Sector, and their global inefficiencies (CCR) are mainly attributed to their inefficient operations.

Now we turn to the returns to scale (RTS) displayed in table 1 only .We have observed that banks with full efficiency in CCR score are also efficient in the BCC model. Many banks have this status while some are close to it.PSU 1, Pvt.3, Pvt.6, Pvt 16 shows that they have a possibility to improve their efficiency by scaling up their activities. The banks with the highest scores are the leaders and the banks performing at average value are moderate performers and the banks with inefficiencies are the laggards which need to be improved by means of restructuring of the banks or merger of the laggards with leaders i.e. with high ranked banks.

7. Discussion, Conclusion And Policy Recommendations

This research study is an attempt to measure inefficiencies of banks in India by application of DEA. Results of the study indicate existence of inefficiency in some banks i.e. they are not operating at the optimal level. Results of the study also indicate existence of scale inefficiencies and suggest that the restructuring of present operations may help the banks to reduce their scale inefficiencies to compete globally. To improve the performance of the banks a no of policy measures such as encouraging completion and restructuring followed by mergers can be considered. We see many of the Indian banks are not CBS (Core Banking solution) and technology savvy. Hence it is recommended that Indian banks should be well connected by CBS and equipped with latest information technology , hardware's and software's and well trained and motivated employees which are the key assets of any organisation.

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A study on the influence of public self-consciousness and materialism on young consumers compulsive buying behavior in India

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Abstract:

This paper has been prepared on the influence of public self-consciousness and materialism on young consumers' compulsive buying in Indian apparel industry. After understanding the topic and its past existing orientations, the available literature has been reviewed in three parts i.e., compulsive buying, materialism and public self-consciousness. The variables have been identified through reviewing the literature and have been utilized for the research process further. A self-administered questionnaire was designed using established scales. A survey was conducted in Noida region of NCR. A variety of statistical techniques was used to analyse the data. All the variables have been tested using regression and correlation analysis to study about the topic in detail.

Keywords: Public Self- Consciousness, Materialism, Compulsive Buying

Introduction

Consumers purchasing goods that are neither required by them nor they can afford it, because of an uncontrollable urge is termed as Compulsive Buying behavior. Individuals measuring success by the wealth possessed, social status and other materialistic possessions, is termed as Materialism. The awareness about one's own self and about how others are viewing him/her is termed as Public Self Consciousness. This paper provides literature to the study of influence of materialism and public self-consciousness on the compulsive buying behavior of young Indian consumers.

Significance of study

The relationship between the public self-consciousness, compulsive buying behavior and public self-consciousness has been measured. This study is mainly focused on the Young Indian Consumers. This study confirms the influence of materialism and public self-consciousness and provides an insight to into the kind of relationship that exists. This will help the marketers to fine tune their strategies to target consumers based on the stated factors

Review of Literature

Compulsive buying (CB), defined as the uncontrollable urge to shop (McElroy, 1994), has increased substantially over the past several generations (Roberts and Manolis, 2000). It is possible that there is a relationship between this increased self-identification as a compulsive shopper and the recent change in societal attitudes toward material gain (Easterlin and Rimmens, 1997) as well as the substantial growth of the credit card industry and decline in personal financial responsibility (The Credit Card and Debt Statistics

database; Sullivan, Warren, and Westbrook, 2001). Compulsive buying is defined by the American Psychiatric Association (1985) as "repetitive and seemingly purposeful behaviors that are performed according to rules or in a stereotyped fashion". In 1900's, a psychologist named Faber has started experimenting and defining the phenomenon of compulsive buying. It was defined as an uncontrollable desire to acquire or being passionate about a feeling or an activity which would further lead to the continuous engagement of the same activity which may ultimately harm an individual. The age is not a significant factor as per the experiments and he also concluded that women engage themselves in compulsive buying more as compared to men. It is also interesting to note that most of the compulsive buyers have low self-esteem..

A Why Do People Buy Compulsively?

Many researches were done to study the differential effect of different personality traits that influence an individual to indulge in compulsive buying. It was found that low self-esteem, depressed minds, anxiety and obsessive thoughts are personality traits found among most of the compulsive buyers. A study concluded that the habit to fantasize to reduce or to move far away from negative problems or negative situations is one of the main driving factor in compulsive buyers. Some studies proved that social anxiety is forcing an individual to go for compulsive buying to relieve stress and eventually make them happy. One major driving factor emerged was to achieve personal and professional goals in life. Most of the compulsive buyers are driven by extrinsic goals that generally showcase insecurity about one self.

The unplanned purchases are the first step towards driving an individual for further compulsive buying behavior. For this purpose, the retailers and marketers

this research contains the primary sources and secondary sources as well.

Hypothesis Testing

Testing Possessiveness and Compulsive Buying Behavior

The intercept computed from the data is 3.436; it can be inferred from the value that even if there is zero change in the independent variable (Possessiveness), the dependent variable (Compulsive Buying Behaviour) is expected to increase by the above value. From the above data, Possessiveness (-.129) does not have considerable effect on the dependent variable.

Table 1.1

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.084 ^a	.007	-.002	.67228	.007	.759	1	106	.386

a. Predictors: (Constant), P

The R-square measures the proportion of the variation in the dependent variable that can be attributed to the independent variables. The accuracy of the variability of the variables is .7%. The coefficient correlation 'R' is (0.084) indicating a weak positive relationship between variables. Since the F-value significance is greater than 0.05, we accept the null hypothesis which is "Possessiveness does not affect compulsive buying behavior of young consumers in India directly."

Testing Envy and Compulsive Buying Behavior

Table 2.0

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	.667	.434			1.536	.128
E	.763	.136	.479		5.616	.000

a. Dependent Variable: C

The intercept computed from the data is 0.667; it can be inferred from the value that even if there is zero change in the independent variable (Envy), the dependent variable (Compulsive Buying Behaviour) is expected to increase by the above value. From the above data, Envy (.763) has considerable effect on the dependent variable.

Table 2.1

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.479 ^a	.229	.222	.59228	.229	31.545	1	106	.000

a. Predictors: (Constant), E

The R-square measures the proportion of the variation in the dependent variable that can be attributed to the independent variables. The accuracy of the variability of the variables is 22.9%. The coefficient correlation 'R' is (0.479) indicating a weak positive relationship between variables. Since the F-value significance is less than 0.05, we accept the alternate hypothesis which is "Envy directly affects compulsive buying behavior of young consumers in India."

Testing Social Values and Compulsive Buying Behavior

(Table 3.0)

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	4.720	.291			16.231	.000
V	-.549	.096	-.487		-5.737	.000

a. Dependent Variable: C

The intercept computed from the data is 4.720; it can be inferred from the value that even if there is zero change in the independent variable (Social Values), the dependent variable (Compulsive Buying Behaviour) is expected to increase by the above value. From the above data, Social Values (-.549) does not have considerable effect on the dependent variable.

Table 3.1

Regression and Correlation testing (Table 01)

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	3.436	.410			8.386	.000
P	-.129	.148	-.084		-.871	.386

a. Dependent Variable: C

The R-square measures the proportion of the variation in the dependent variable that can be attributed to the independent variables. The accuracy of the variability of the variables is 23.7%. The coefficient correlation 'R' is (0.487) indicating a weak positive relationship between variables. Since

the F-value significance is less than 0.05, we accept the alternate hypothesis which is "Social Values directly affects compulsive buying behavior of young consumers in India."

Testing Materialism and Compulsive Buying Behavior in Young Consumers of India (Table 4.0)

Regression and Correlation testing

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	3.712	.714			5.201	.000
M	-.212	.240	-.086		-.885	.378

a. Dependent Variable: C

The intercept computed from the data is 3.712; it can be inferred from the value that even if there is zero change in the independent variable (Materialism), the dependent variable (Compulsive Buying Behaviour) is expected to increase by the above value. From the above data, Materialism (-.212) does not have considerable effect on the dependent variable.

Table 4.1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. Change
1	.086 ^a	.007	-.002	.67220	.007	.783	1	106	.378

a. Predictors: (Constant), M

The R-square measures the proportion of the variation in the dependent variable that can be attributed to the independent variables. The accuracy of the variability of the variables is 0.7%. The coefficient correlation ‘R’ is (0.086) indicating a weak positive relationship between variables. Since the F-value significance is greater than 0.05, we accept the null hypothesis which is “Materialism does not directly affect compulsive buying behavior in young consumers of India.”

Testing Materialism and Public Self Consciousness (Table 5.0)

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.315	.139		16.599	.000
S	.205	.044	.416	4.712	.000

a. Dependent Variable: M

The intercept computed from the data is 2.315; it can be inferred from the value that even if there is zero change in the independent variable (Public Self Consciousness), the dependent variable (Materialism) is expected to increase by the above value. From the above data, Public Self Consciousness (0.205) has considerable effect on the dependent variable.

Table 5.1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. Change
1	.416 ^a	.173	.165	.24748	.173	22.201	1	106	.000

a. Predictors: (Constant), S

The R-square measures the proportion of the variation in the dependent variable that can be attributed to the independent variables. The accuracy of the variability of the variables is 17.3%. The coefficient correlation ‘R’ is (0.416) indicating a weak positive relationship between variables. Since the F-value significance is less than 0.05, we accept the alternate hypothesis which is “Public Self Consciousness directly affects materialism in young consumers of India.”

4.10. Testing Public Self Consciousness and Compulsive Buying Behavior in Young Consumers of India (Table 6.0)

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.538	.376		6.742	.000
S	.173	.117	.141	1.470	.144

a. Dependent Variable: C

The intercept computed from the data is 2.538; it can be inferred from the value that even if there is zero change in the independent variable (Public Self Consciousness), the dependent variable (Compulsive Buying Behaviour) is expected to increase by the above value. From the above data, Public Self Consciousness (0.173) has considerable effect on the dependent variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. Change
1	.141 ^a	.020	.011	.66790	.020	2.162	1	106	.144

a. Predictors: (Constant), S

The R-square measures the proportion of the variation in the dependent variable that can be attributed to the independent variables. The accuracy of the variability of the variables is 20%. The coefficient correlation ‘R’ is (0.141) indicating a weak positive relationship between variables. Since the F-value significance is greater than 0.05, we accept the null hypothesis which is “Public Self Consciousness does not directly affect compulsive buying behavior in young consumers of India.”

Analysis of Regression and Correlation between materialism, public self-consciousness and compulsive buying behavior of young consumer in India (Table 7.0)

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.726	.518		3.336	.001
Possessiveness	.172	.119	.113	1.447	.151
Envy	.570	.118	.357	4.843	.000
SocialValues	.651	.095	.577	6.884	.000
PublicSelf	.324	.095	.265	3.396	.001

The intercept computed from the data is 1.766; it can be inferred from the value that even if there is zero change in the independent variables, the dependent variable (Compulsive Buying Behavior) is expected to increase by the above value. From the above data, the Independent Variable “Social Values” and “Envy” has a greater effect on the dependent variable. Hence it can be derived that the Social Values and Envy among the young consumers in India are leading them strongly to do compulsive buying and Public Self Consciousness being the next strong driving reason.

Table 7.1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. Change
1	.693 ^a	.480	.460	.49348	.480	23.783	4	103	.000

a. Predictors: (Constant), PublicSelf, Envy, Possessiveness, SocialValues

The R-squared measures the proportion of the variation in the dependent variable that can be attributed to the independent variables. The accuracy of the variability of the variables is 48.0%. The coefficient correlation ‘R’ is positive (0.693) indicating a strong positive relationship between variables.

Correlation Testing

The correlation test establishes the strength of the relationship between the variables in the study.

Correlations						
		Possessiveness	Envy	SocialValues	CompulsiveBuying	PublicSelf
CompulsiveBuying	Pearson Correlation	-.084	.479**	-.487**	1	.141

From the above data it can be inferred that the Compulsive Buying Behaviour has Weak positive correlation with Public Self Consciousness but has Significant Positive Correlation with Envy. Since the F-value significance is less than 0.05, we accept the alternate hypothesis that is the materialism (possessiveness, envy, social values) and public self-consciousness together affects compulsive buying behavior of a young Indian consumer.

FINDINGS AND MARKETING IMPLICATIONS

- In the variables that comprise materialism, “Envy and Social Values” are the strong driving forces behind compulsive buying behavior rather than possessiveness.
- Public self-consciousness is increasing among the young Indian consumers but is unable to evoke the compulsive buying behavior as young generation is aware of their wants and needs as well as the globalization process is giving them more choices to think and decide.
- It is observed that public self-consciousness and materialism are strongly and positively related to each other which put together are having a significant effect on the compulsive buying behavior of young consumers in India.
- Marketers should redesign their ad campaigns which are evoking more “Envy” among their consumers.
- The social values like success, centrality and happiness are also having a significant impact on young consumers which would work as an alternative to reduce envy and encourage an ethical environment in the markets.
- The possessiveness is decreasing among the consumers might turn to impact the companies in future as it may impact the loyalty and product value in users.
- The public self-consciousness when measured independently is showing a downward trend implying that consumers are not being carried away by the celebrity endorsements but are concerned about the product they are purchasing and valuing money they spend.
- When public self-consciousness and materialism put together are showing a strong impact on compulsive buying behavior which is proving that marketing strategies which are promoting these variables are succeeding. But, it is recommended to marketers to maintain certain standards which would control the level of public self-consciousness and materialism aligning them with societal norms and ethics

CONCLUSION

The results of this study provide a strong positive relationship between public self-consciousness,

materialism and compulsive buying behavior among young consumers of India. The Independent variables (P & M) put together are showing a significant effect on compulsive buying as per to the empirical evidences.

The research study provides insights into how marketers are creating ethical conflicts through raising the levels of public self-consciousness and materialism in consumers which may lead to adverse effects in future for the society as a whole.

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An empirical study of employee job satisfaction in terms of organizational culture in IT sector in NCR.

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Abstract:

In today's competitive market it becomes crucial to retain good employees who can add meaning and value towards attainment of organizational goal and objectives. Employee satisfaction is indispensable for the success of any organization. It expresses an echelon of happiness of a person in his professional setting linked with the organization culture. An elevated rate of employee contentedness is positively related to a lower turnover rate. Thus, keeping employees' satisfied with their career must be a key priority for each employer. Researches on Employee satisfaction include (Wood 1976), (Kaye & Jordan-Evans, 1999), (Mine, Ebrahimi, and Wachtel, 1995), (Branham (2005)), (Heskett et al. (1997) as cited in Abdullah (2011) and Sturgeon (2006), (Rider (1998) as cited in Mehta et al. (2010), (Thomas & Gabarro, 1999), (Gellner & Veen, 2009) American business Journal (Hansen, 2002), (Alesina & La Ferrara, 2005),

Keywords: Employees, Job satisfaction, IT SECTOR, Productivity.

1. Introduction

Employees are considered to be the most important constituent of any organization. Employees are satisfied when their needs or desires are fulfilled. It is an excellent range to evaluate the potential of an employee and their attitude towards the organization. If an employee is satisfied the whole organization moves towards success. Thus the key to accomplishment lies with employee happiness which leads towards employee satisfaction. According to Wood (1976) the strength of an organization depends on the satisfaction of its employees. It is very essential to recognize an employee hard work as well as promote healthy and cordial relations with the employees so as to increase satisfaction and make the work environment more healthier (Kaye & Jordan-Evans, 1999). Reward act as a great motivator and a true balance between pay and performance helps to motivate the employees and leads to increase in organization productivity (Timpe, 1986). Motivation is a crucial psychological progression (Wachtel, 1995). A recent data-based broad analysis concluded that competitiveness problems appear to be largely motivational in nature.

The management looks through the various characteristics and performance of the employees. The culture of an organization plays an important part for the job satisfaction of the employees. The assessment of employees is done by the top management. "Gallup studies show that organizations which achieve higher employee satisfaction have 76% success in lowering turnover and 70% in achieving high profitability. If an employee is satisfied it contributes majorly in motivating the employee, accomplishing his goals and keeping his morale high at workplace. An average employee will stay in the

organization only if they are satisfied with the organizational culture. Furthermore, the longer an employee works for an organization, the more precious they become for a service industry (Branham, 2005).

Employee development and training programs can help to create employees satisfaction and loyalty (Heskett, 1997). One method of inspiring people is to make use of effective motivation, which will make workers more satisfied and committed towards their jobs (Luthans, 1998). To improve the efficacy and competence of organizational operations it is very essential to find out employee loyalty towards the organization which in turn is effected by employee satisfaction. It is not easy to maintain employee loyalty in an organization as it is effected by multiple factors therefore there is a need to focus on factors like work environment, rewards and compensation, career development to maintain happiness of employees.

Therefore this study is conducted to find out the relationship between these three independent variables and employee satisfaction which can help an organization in reducing employee turnover rate and increasing employee efficiency.

Definition of Job Satisfaction

Job satisfaction can be expressed as the outlook or mind set people have concerning their jobs. It has been particularly defined as a pleasurable emotional state consequential from the assessment of one's job, an effectual response to one's job, and an outlook towards one's job. It can be subjective by a variety of factors, e.g., one's relationship with their immediate boss, the Work Environment, compensation and recognition for oneself, career development and much more etc.

These definitions advocate that job satisfaction takes into account feelings, beliefs, and behaviors (Anon., 2012a). Another definition of job satisfaction (Anon., 2012b) is worker's sense of achievement and success, is generally perceived to be directly linked to productivity as well as to personal wellbeing. The Harvard Professional Group (1998) sees job satisfaction as the key element that leads to recognition, income, promotion, and the achievement of other goals that lead to a general feeling of fulfillment. Low job satisfaction often leads to poor employee performance and productivity.

Parameters of employee job satisfaction:

1. Psychological factors
2. Physical factors
3. Environmental factors
 1. Psychological factors
 - a. Health and safety
 - b. Working responsibilities
 - c. Job Security
 - d. Recognition management
 2. Physical factors
 - a. Payments and salary
 - b. Working condition and supportive co-workers
 - c. Welfare services
 3. Environmental factors
 - a. Good working environment
 - b. Management style & culture
 - c. Management relations
1. a) Health and safety: Employee's health and safety is the priority of every organization. An employee expects a certain responsibility from the organization in which he/she is working. Thus the health and safety measure are the primary needs of any employee.
- b) Responsibilities: the responsibilities and functions of a person should be well defined and aligned to his/her nature of work. It depends on the designation of the person working in the organization. It includes the job requirements which lead to the performance of the employee.
- c) Job security: It signifies the sense of assurance of the work, where an employee feels secure about his/her job and its continuation. The chance of being unemployed is less.
- d) Rewards and recognition: Recognition are the programs set up by the company to reward the performance and motivate them at the same time. Employee recognition plans are given to the employees for their psychological needs.
2. a) Payments and salary: this includes the salary scales, wage rise, satisfaction with and motivation with pay. An increment in remuneration is a factor of company's trust in the employee which increases employee's confidence.
- b) Working condition and supportive co-workers: this is one of the major elements of job satisfaction. Working condition must meet employee's requirement and expectation else employee loses interest in his work.

c) Welfare services: These are the policies which are adopted by the companies for the employee's benefit. These policies include pf, ppf, gratuity, allowances and insurance policies provided by the company to the employee.

3. a) Management style & culture: the management style of any company describes its attitude towards the employees. Culture is an important factor because people are the main assets of any organization, thus it plays an important part.
- b) Management relations: This signifies the interpersonal relationship amongst the employees, manager and employees and superior and employees and superiors and managers. This involves all three levels of hierarchy.

How Job Satisfaction Is Measured?

Job satisfaction is a very significant element and is repeatedly considered and measured by organizations. Mainly extensive method for measuring job satisfaction is the use of likert rating scales where employees report their thoughts and reactions to their jobs by answering to questions like pay, job task ,variety of work , promotional opportunities, peer relation, career development, and co-workers. Some examinations present yes-or-no questions while others ask to rate satisfaction using a 1-to-5 scale. " Job satisfaction is the dependent variable and the independent variables were the personal demographic characteristics— income, education, occupation, age, gender, work environment, compensation & recognition and career development.

Information Technology (IT) Sector

With the boom in IT sector India has been hyper to the world which is a precondition for globalization of the economy. According to NASSCOM, the IT sector aggregated revenues of US\$147 billion in 2015, where export revenue stood at US\$99 billion and domestic at US\$48 billion, growing by over 13%. India's prime minister Narendra Modi has started 'Digital India' project to give IT a secured position inside & outside India.

India, the fourth largest base for young businesses in the world and home to 3,000 tech start-ups, is set to increase its base to 11,500 tech start-ups by 2020, as per a report by Nasscom and Zinnov Management Consulting Pvt Ltd.

India's internet economy is expected to touch Rs 10 trillion (US\$ 161.26 billion) by 2018, accounting for 5 per cent of the country's gross domestic product (GDP), according to a report by the Boston Consulting Group (BCG) and Internet and Mobile Association of India (IAMAI). In December 2014, India's internet user base reached 300 million, the third largest in the world, while the number of social media users and smartphones grew to 100 million.

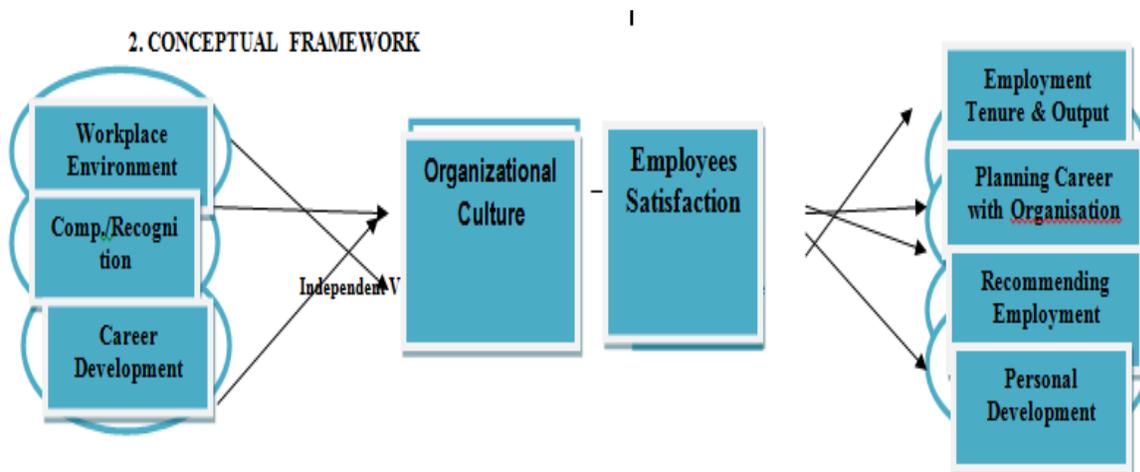
With IT biggies like Infosys, Cognizant, Wipro, Tata Consultancy Services, Accenture and several other IT

firms operating in some of the major Indian cities, there is no dearth of job opportunities for the Indian software professionals.

The IT enabled sector of India absorbs a large number of graduates from general stream in the BPO and KPO firms. All these have solved the unemployment problem of India to a great extent. The average purchasing power of the common people of India has improved substantially. The consumption spending has recorded an all-time high. The aggregate demand has increased as a result. All these have improved the gross production of goods and services in the Indian

economy. So, in conclusion it can be said that the growth of India's IT industry has been instrumental in facilitating the economic progress of India (Anon., 2010). Therefore it is more appropriate to deliberate on whether the employees working in this IT industry enjoy job satisfaction or not. This aspect is discussed in the following sections. A workforce with high job satisfaction leads to an improvement in work quality and productivity, and leads to satisfied loyal customers.

Conceptual Framework



2. Review of Literature:

Employee Satisfaction is basically correlated with employee happiness. If an employee is contented and feels that his desires are fulfilled it leads to an increase in employee morale at workplace. An average employee would always like to stay in an organization if he feels satisfied and happy working at the place. The longer the tenure of an employee in an organization, the more valuable he becomes for the organization.

It is only the members of an organization who contribute to the realization of the organization's objectives. Strategic HRM helps the organization in reaching its objectives, and the main players in SHRM are the "employees" (Armstrong, 2000). A firm's HR strategy should be centered on budding skills and ensuring enthusiasm and dedication among the employees so as to achieve employee satisfaction (Lawler, 1986). If more training and development programmes are provided that will necessarily boost employee satisfaction towards the institution (Waldersee, 2000). That is why the satisfaction of the employees takes an added importance. Employees are more happy and loyal when they are satisfied which ultimately affects organizational productivity (Hunter & Tietjen, 1997). Culture has been defined as a pattern of shared values and beliefs that help members of an organization understand organizational functioning and thus teach them the behavioral norms in the organization (Deshpande and Webster, 1989). An employee satisfaction towards his job is actually an emotional state of mind comprising of all physical, psychological, physiological climate (Hoppock, 1935). If an employee is given proper work climate and made feel that he is an asset for an organization he will definitely work towards the success of an organization (Locke, 1976).

Nurturing an employee emotionally and physically will definitely lead to employee satisfaction (Feldman and Arnold, 1983). A tool to measure job satisfaction has been developed which is known as (JDI) Job Descriptive Index which measure basis itself on five facets of job satisfaction like work itself, career prospects etc (Smith, Kendall, and Hulin in 1969). Another popular and highly researched measure of job satisfaction is the Minnesota Satisfaction Questionnaire (MSQ).

In a previous study which was conducted in Europe, Asia, Africa, and the Americas among 10,339 workers the same top five key attributes which results in job satisfaction were consistently identified: ability to balance work and personal life, work that is truly enjoyable, security for the future, good pay or salary and enjoyable co-workers.

Association for Investment Management and Research conducted a survey where it was found that 81% of the employees discussed about the factors which lead to positive or negative feelings about the job. The positive factors which were identified were professional achievement, personal or professional growth, the work itself and their degree of responsibility more important than compensation. The negative factors about their jobs were company policies, administration, relationships with supervisors, compensation and the negative impact of work on their personal lives (Cardona, 1996). Identifying employees by their names and giving them proper appraisals apart from their salary and recognizing

their talent will also lead towards job satisfaction (Metzler, 1998). A better compensation package for an employee definitely leads to satisfaction towards job and increases loyalty of an employee towards organization (Gerhart, 1994).

One of the main drivers of employee satisfaction is training and development programmes given to employee in performing their task efficiently (Sturgeon, 2006). As said by many researchers there are many sources which can lead to an increase in employee loyalty and happiness towards the organization which comprises of organizational culture like work environment, compensation strategies, rewards, salary system, job security and career development practices. It has been rightly said by many researchers in their past study that if an employee is satisfied the more happiest and motivated he will be which in turn will increase his loyalty towards the organization.

The objective of this study is to ascertain the level of satisfaction, accomplishment and motivation in employees. A better knowledge and understanding of the tools that the organization already uses will help to understand what the employees really want and need in order to be successful.

4. Research Problem:

The main purpose of the study is to obtain employee job satisfaction level and motivation level of the employees working in IT Sector in NCR. The purpose was to check the involvement of factors like work culture, salary, company's policies, recognition and working environment in the IT Sector. The employee may not be satisfied with these factors but what leads them to leave an organization and what leads towards job satisfaction is studied.

5. Research Objective:

The main research objective here in this study is to fill up the gap mentioned above in the problem statement.

- a) To study the impact of social factors (Age/Gender/Marital Status/Education level/) on job satisfaction level of an employee.
- b) To study the impact of independent variables (work environment, compensation and recognition, career development) on employee's job satisfaction.

Research Hypotheses:

Main Hypothesis:

- H01: There is no significant relationship between social factors (Age/Gender/Marital Status) and employee's job satisfaction.
- H02: There is no significant relationship between the different sub variables of Organizational Culture on employee's job satisfaction.

Sub Hypothesis:

H03: There is no significant relationship between work environment and employee's job satisfaction

H04: There is no significant relationship between compensation & rewards and employee's job satisfaction

H05: There is no significant relationship between career development and employee's job satisfaction

6. Research Methodology:

The study uses quantitative methodology. For data collection questionnaire method has been used on a sample of 100 employees in IT Sector NCR region only. Independent variables are work environment, compensation and recognition, career development and dependent variable is employee satisfaction. For the purpose of data analysis we used IBM SPSS 20. We have used correlation and regression analysis to find out the satisfaction level of the employees against each major variable.

- a) **Sample Size:** A sample of 100 employees has been studied in IT Sector in NCR region.
- b) **Scope of Study:** Job Satisfaction has been a crucial element for an employee to work in an organization which consists of both extrinsic and intrinsic factors. This research will be useful for the management in knowing the satisfaction levels of their employees and what measures they can take to increase productivity and promote satisfaction.
- c) **Tools for data collection:** The tool used is Questionnaire. The Primary data was collected from the respondents by administering a structured questionnaire and also through interview & discussion with management.
- d) **Limitations:** The study is limited to IT Sector in NCR region only. The limitation of the time also played a restraining factor in this research. Due to confidentiality of some information accurate response was not revealed by some of the respondents. Respondents also marked the answers in questionnaires which may be factually incorrect irrespective of their actual feelings.

6. Findings, Analysis and Interpretation:

Based on the below findings, the study shows that there is a significant relationship between Independent variables (work environment, compensation and recognition, career development) and dependent variable(employee satisfaction). The present research shows that employee satisfaction is dependent on these three variables. So, organizations need to focus more on these factors like compensation, workplace environment, career development etc., to improve their employee satisfaction. Moreover, extensive research has proven that motivated and satisfied employees tend to put in more in terms of organizational efficiency and maintaining a level of commitment towards organization.

Interpretation:

A Pearson product-moment correlation coefficient was computed to assess the relationship between all the three independent variables(WE-Work Environment, RR-Compensation and Recognition, CD-Career Development).

Table 1: Pearson's Correlations Analysis

		Avg_ WE	Avg_ RR	Avg_ CD
Avg_ W E	Pearson Correlation	1	.535**	.756**
	Sig. (2-tailed)		.000	.000
	N	100	100	100
Avg_ R R	Pearson Correlation	.535**	1	.635**
	Sig. (2-tailed)	.000		.000
	N	100	100	100
Avg_ C D	Pearson Correlation	.756**	.635**	1
	Sig. (2-tailed)	.000	.000	
	N	100	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

The above table 1 shows a high degree of positive correlation between all the independent variables (work environment, compensation and recognition and career development). This correlation which exists between all independent variables show that a positive change in one function leads towards a positive change in the other at organization.

Table 2: Correlations

		Avg_ WE	Avg_ RR	Avg_ CD	Avg_ E
Avg_ W E	Pearson Correlation	1	.535**	.756**	.521**
	Sig. (2-tailed)		.000	.000	.000
	N	100	100	100	100
Avg_ RR	Pearson Correlation	.535**	1	.635**	.133
	Sig. (2-tailed)	.000		.000	.189
	N	100	100	100	100
Avg_ CD	Pearson Correlation	.756**	.635**	1	.319**
	Sig. (2-tailed)	.000	.000		.001
	N	100	100	100	100
Avg_ EE	Pearson Correlation	.521**	.133	.319**	1
	Sig. (2-tailed)	.000	.189	.001	
	N	100	100	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

The above table 2 shows a moderate degree of positive correlation exists between workplace environment ,career development and employee satisfaction but a weak correlation between compensation& recognition and employee satisfaction(EE).

Regression Analysis:

Table 3: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	.766	.213		3.603	.001
1 Avg_WE	.690	.133	.676	5.169	.000
Avg_RR	-.139	.086	-.180	-1.625	.108
Avg_CD	-.063	.117	-.077	-.538	.592

a. Dependent Variable: Avg_EE

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	10.000	3	3.333	13.974	.000 ^b
Residual	22.899	96	.239		
Total	32.899	99			

a. Dependent Variable: Avg_EE

b. Predictors: (Constant), Avg_CD, Avg_RR, Avg_WE

Effect Of Gender on Employee Job Satisfaction

T-TEST :

Table 4: Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean
Avg_EE	male	47	1.7311	.59491	.08678
	female	53	1.6930	.56470	.07757

Independent Samples Test										
	Levene's Test for Equality of Variances	t-test for Equality of Means								
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Avg_EE	Equal variances assumed	0.112	0.739	0.33	98	0.743	0.03817	0.11602	-0.1921	0.2684
	Equal variances not assumed			0.33	95.14	0.744	0.03817	0.11639	-0.1929	0.2692

An independent-samples t-test was conducted to compare the satisfaction level of males and females employees about their job. In the above table 4, since p value is greater than 0.05, it implies that the difference between the means is not statistically different. Therefore, we accept the null hypothesis.

Effect of Marital Status On Employee Job Satisfaction

T TEST :

Table5:Group Statistics

	marital status	N	Mean	Std. Deviation	Std. Error Mean
Avg_EE	married	77	1.6187	.54546	.06216
	unmarried	22	1.9876	.57379	.12233

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Avg_EE	Equal variances assumed	0.015	0.902	-2.766	97	0.007	-0.36895	0.13338	-0.6337	-0.1042
	Equal variances not assumed			-2.689	32.64	0.011	-0.36895	0.13722	-0.6482	-0.0897

The independent-samples t-test was conducted to compare the impact of marital status on employee job satisfaction. Here the table 5 shows that since p value is less than .05, it implies that the difference between the means is not statistically different. Therefore we reject the null hypothesis.

Effect of Age Group on Employee Job Satisfaction
ANOVA :Table6 Descriptives

Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
					below 25 yrs	7	
25-40 yrs	65	1.621	0.52064	0.06458	1.492	1.75	
40-55 yrs	24	1.693	0.60112	0.1227	1.439	1.947	
above 55	4	2.25	0.72869	0.36435	1.091	3.41	1.1
Total	100	1.711	0.57646	0.05765	1.597	1.825	

ANOVA

Avg_EE

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.114	3	1.371	4.574	.005
Within Groups	28.785	96	.300		
Total	32.899	99			

Similarly, to understand the effect of age, ANOVAs was conducted. In the above table 6, since the significant value is less than .05, we can conclude through the results that there is a statistically significant difference between age groups. The modern organizations should structure the tasks in such a way that the biological effect of age can be overcome and it should enhance employee satisfaction.

EFFECT OF EMPLOYMENT TENURE ON EMPLOYEE JOB SATISFACTION

Table7:Descriptives

Avg_EE

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
0-2 yrs	11	1.7107	.55569	.16755	1.3374	2.0841	1.00	2.55
2-5 yrs	43	1.5687	.52863	.08062	1.4060	1.7314	1.00	2.82
5-7 yrs	30	1.7333	.60488	.11044	1.5075	1.9592	1.00	2.82
more than 7 yrs	16	2.0511	.56135	.14034	1.7520	2.3503	1.00	2.82
Total	100	1.7109	.57646	.05765	1.5965	1.8253	1.00	2.82

ANOVA

Avg_EE

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.737	3	.912	2.903	.039
Within Groups	30.162	96	.314		
Total	32.899	99			

To understand the effect of Employment Tenure, ANOVAs was conducted. In the above table 7, since the significant value is less than .05, we can conclude through the results that there is a statistically significant difference between people working for different no of years . The modern organizations should structure the tasks in such a way that the effect of employment tenure can be overcome and it should enhance employee satisfaction.

Reliability Analysis

The reliability test will be used to examine the relevancy of statements in each variable towards the surveys. Reliability is the degree to which measures are free from errors and hence yield consistent result. The reliability analysis that is being used by this SPSS software is to evaluate the independent variable of career development,

compensation and recognition and workplace environment and dependent variable of employee satisfaction. For this research, the reliability analysis consists of 100 respondents.

Dimensions	Cronbach's Alpha	Strength of Association
Workplace Environment	.784	Good
Career development	.745	Good
Compensation and Recognition	.547	Good
Employee Satisfaction	.724	Good

TABLE 7: DESCRIPTIVE STATISTICS OF THE SAMPLE
N =100

GENDER	NO. OF EMPLOYEES	PERCENTAGE
Male	47	47.00
Female	53	53.00
MARITAL STATUS		
Married	77	77.00
Bachelors	23	22.00
AGE GROUP		
Below 25 yrs	7	7.00
25-40 yrs	65	65.00
40-55 yrs	24	24.00
Above 55 yrs	4	4.00
EMPLOYMENT TENURE		
0-2YRS	11	11.00
2-5YRS	43	43.00
5-7YRS	30	30.00
ABOVE 7 YRS	16	16.00
INCOME LEVEL(annually)		
Below 5lakh	6	6
5lakh-7lakh	50	50
7lakh-10lakh	32	32
Above 10lakh	12	12

7. Recommendations And Conclusion

This research suggests that job satisfaction effects employee's morale and keeps him/her motivated which in turn leads to the better production, less absenteeism and organization on top. The job satisfaction of lower level and middle management is critical for the success of an organization. In the above data it is clear that the policies used by the organization to keep an employee motivated are quite good.

The work culture is collaborative, working environment of mutual trust and respect exists. Employees have the opportunities to show their skills. The training opportunities provided here is a value added factor for

the employees. Employees take part in the management decision and often asked for the feedback. Employees are self motivated and work in all possible ways to increase organization efficiency .It is recommended that the results of the survey should be kept in mind and the facilities should be provided in a much better way. In order to keep the employee motivated there should be the leisure time for them to do research activities.

8. Future Research

The limitations of this research can place a setting for probable prospect study to better understand the study of employee satisfaction and its effects toward IT sector in NCR region. The future research should be done by doing survey for more locations and moreover taking a much larger sample which can make data more accurate and results to be much true and less biased. Secondly interview survey method should be used for more unbiased and accurate results. Thirdly the main limitation of this research is that only three variables work environment, career development and compensation and recognition has been made use of . But there are other factors also which affect employee job satisfaction which has not been covered in this research.

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Empirical study of impact of total life insurance premium on insurance penetration and density in India

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Abstract:

Awareness level of Indian customers towards life insurance, number of policy surrenders, volume of new business and renewal premium are the major apprehensions to determine the level of insurance penetration and density in an economy. This research paper has an objective to study the behaviour of volume of the total insurance premium (new Business premium and renewal premium) with respect to time and different insurance companies including all private and public life insurers in Indian Life insurance industry. Secondary data of past 10 years is collected from the annual reports of Insurance regulatory and development authority of India (IRDA) of all 24 private players as well as one public sector company Life Insurance Corporation (LIC) of India. Two way Anova without replication technique is used to establish the hypothesis that there is a significant difference in the business volume of Insurance premium across different insurance companies and time span as well. Study would also explore any significant difference between the total premium of public and private insurers.

It's found that there has been a regular decline in insurance premium collected since financial year 2010-11 in spite of huge market potential. Basic factors that have caused this decline are lack of awareness, loss of customer confidence, lack of quality services, wrong commitments and mis-selling by insurance advisors. However the Initiatives like prime-minister's 'Jeevan Jyoti Bema Yojna' and 'Suraksha Beema Yojna' are likely to increase the collection of premium in near future to increase penetration and density. Availability of secondary data based on desired parameters, and diversity of Indian life insurance markets has been the limitation of the study. Scope of the future studies includes study of customer perception and variance analysis based on geographical locations, income and occupations. There are good reasons to expect that the growth momentum in the insurance sector can be revived to sustainable levels as, there is a significant untapped potential in various segments of the market, precisely in areas like pensions, term and micro insurance.

Keywords: Customer preferences, Total insurance premium, Insurance penetration and density, Life Insurance.

Introduction

Insurance penetration is defined as the Ratio of premium underwritten in a year to GDP and insurance density is defined as ratio of premium underwritten in a year to the total population. As per I.R.D.A reports the Insurance penetration in India fell from 4.4% in FY10 to 3.4% in FY11 and 3.17% in FY12. The first year premium collected by life insurers declined for the second consecutive year and with sluggish expectations in the current fiscal, the time is right for the industry to rethink its business and operating models. Additionally due to regulatory changes the sale of ULIPs has gone down and insurers are also loaded by high operating costs. Furthermore insurers are also facing challenges in expanding to emerging new customer segments. Changes in distribution regulations have further limited the ability of insurers. Low levels of financial literacy is also manifesting in low customer pull even though the awareness levels are pretty high. While substantial opportunities potential exists in micro-insurance, term and pension, insurers have to make significant inroads to tap the potential. (Annual report of I.R.D.A 2013-14, and www.irdaindia.org).

Literature Review

Durvasula, Srinivas; Lysonski, Steven; June 2004, The study found that satisfaction was positively associated with customers' re-purchase intentions but its relationship with customers' willingness to recommend to others was relatively weak. Lars Fredrik Andersson, Liselotte Eriksson and Magnus Lindmark; November 2010, The paper shows that income elasticity of demand gives a fairly good approximation of the development in the twentieth century, while the development of risk and insurance innovation among other things need to be taken into account to explain the growth of life insurance in the nineteenth century. The price of life insurance, measured as the overhead-to-premium-income ratio, this probably improved the return on life insurance savings and further helped the entry of new firms. The average premium size was reduced to enable the diffusion of life insurance to workers to increase insurance penetration. Monica Keneley (2001)- As per the study feature of the growth of the Australian life insurance industry in the past 150 years has been the dominance of \bar{Z} firms based on the mutual principle in the marketplace. The evolution of the Australian life insurance Industry has historically been mutuals. The mutual structure initially evolved as a means of providing a service to consumers which was not

adequately provided by the private sector. The organizational structure of Australian life insurance firms has proved both dynamic and innovative. Edward W. (Jed) Frees 2010: findings suggest that household demand for term and whole life insurance is jointly determined, there exists a negative relationship for a household's decision to own both whole and term life insurance (the frequency part) and a positive relationship for the amount of insurance purchased (the severity part). This indicates that the greater the probability of holding one type, the smaller the probability of holding the other type of life insurance. Study reveals that term and whole life insurance are substitutes in the frequency yet complements in the severity which plays major role in increasing insurance penetration and density. Liebenberg, Andre P.; Carson, James M.; Dumm, Randy (Sep2012)- Results indicate both a statistically and economically significant relation between life events, such as new parenthood, and the demand for life insurance. M Yuan, Cheng; Jiang, Yu (2015)- Empirical results indicate that level of income, development of insurance market and level of marketization are the common factors; level of education, development of social security pension, children dependency ratio and elderly dependency ratio mainly affect the demand for life insurance. T. Hymavathi Kumari (2013) study reveals that- it is necessary to ensure efficient and effective service to the policy holder. The overall business of life insurance has been significantly increased after privatization but still a huge Indian population lives is being uninsured. As such there is a need to examine to what extent the industry is serving the needs of the customers before and after the sale of policies and to what extent innovative products are introducing to improve the performance of life insurance industry in India. R. Kanan June(2008)- Formation of more strategic alliances, emergence of changing business models & new service providers, development of new & innovative products & alternative distribution channels would be the basic prerequisite to compete in Indian life insurance industry.

RESEARCH OBJECTIVE

Research objective is to determine the effect of time and different insurance companies including both the private and public insurance companies on the amount of total insurance premium collected. Further research objective is to find root causes of declining life insurance premium, penetration and density even in the growing economy like India.

Scope of the Study and Limitations

Study has a scope of analyzing the behavior of declining life insurance premium based on systematic risk- like household savings, per capita disposable income, interest rates, inflation, Sensex. Study could further be extended to analyses the impact of different controllable micro parameters like- service quality of companies, product quality, returns on investment, and demographic parameters on premium payment. Availability of limited secondary data from the reliable sources as per the desired parameters, volatility in the Indian life insurance sector and diversity of market has been the primary limitations of the study.

Research Methodology

Data of total insurance premium is collected from I.R.D.A annual reports from the financial year 2004-05 till the year 2013-14. Total life insurance premium includes new business premium and renewal premium both. Analysis of variance, two way ANOVA technique is used to determine whether there is any significant difference in total life insurance premium across the span of time and different insurers including both public and private insurance companies. Reasons of the above variance are analyzed. Correlation coefficient is calculated between the total life insurance premium and insurance penetration, density.

Hypothesis

Null Hypothesis (H1) : Total life insurance premium is independent of time and there is no significant difference across the span of time.

Alternate hypothesis- (H1): Total life insurance premium depends on time and there is a significant difference across the span of time.

Null Hypothesis (H2): Total life insurance premium is independent of insurance companies and there is no significant difference across different insurance companies.

Alternate hypothesis- (H2): Total life insurance premium depends on insurance companies and there is a significant difference across different insurance companies.

Null Hypothesis (H3): Total life insurance premium does not depend on public or private sector's insurance companies and there is no significant difference between the total insurance premium of public and private insurers.

Alternate hypothesis- (H3): Total life insurance premium depends on public or private sector's insurance companies and there is a significant difference between the total insurance premium of public and private insurers.

Behavior of insurance penetration and density with total insurance premium

Table-i: Behavior of insurance penetration and density

Year	Life Insurance Density (%)	Life Insurance Penetration (%)	Total Life insurance Premium (In crore of rupee)
2004	15.7	2.53	82854.80
2005	18.3	2.53	105875.76
2006	33.2	4.1	156075.84
2007	40.4	4	201351.41
2008	41.2	4	221785.47
2009	47.7	4.6	265447.25

2010	55.7	4.4	291638.64
2011	49	3.4	287072.11
2012	42.7	3.17	287202.49
2013	41	3.1	314283.20

Source: Annual Report of I.R.D.A: 2013-2014

Correlation of total Insurance premium with Insurance penetration

Table-ii Correlation: Insurance premium with Insurance penetration

	Column 1	Column 2
Column 1	1	
Column 2	0.45122	1

(Column 1: Total Insurance premium, Column 2: Insurance penetration)

Coefficient of correlation between the total insurance premium and insurance penetration is .45, which indicates that there is weak correlation between the two factors.

Table of Correlation of total Insurance premium with Insurance Density

Table-iii Correlation: Insurance premium with Insurance Density

	Column 1	Column 2
Column 1	1	
Column 2	0.903416	1

(Column 1: Total Insurance premium, Column 2: Insurance Density)

Coefficient of correlation between Insurance premium and insurance density is .90, which indicates that there is strong correlation between the two factors and it's a good sign for Indian life insurance industry.

Behavior Total Insurance premium (figures in crore of Rupee) with time and different insurers

Table-iv Behavior Total Insurance premium

S.No	Insurer	Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
1	AEGON RELIGARE		0	0	0	0	31.21	165.65	388.61	457.32	430.5	452.07
2	AMVA		253.42	600.27	1147.23	1891.88	1992.87	2378.01	2345.17	2415.87	2140.67	1878.1
3	BAJAJ ALLIANZ		1001.68	3133.58	5345.24	9725.31	10624.52	11419.71	9609.95	7483.8	6892.7	5843.14
4	BHARTI AXA		0	0	7.78	118.41	360.41	669.73	792.02	774.16	744.52	872.65
5	BIRLA SUN LIFE		915.47	1259.68	1776.71	3272.19	4571.8	5505.66	5677.07	5885.36	5216.3	4833.05
6	CANARA HSBC		0	0	0	0	296.41	842.45	1531.86	1861.08	1912.15	1805.88
7	DHFL PRAMERICA		0	0	0	0	3.37	38.44	95.04	167.01	236.79	305.86
8	ED ELWEISS TOKIO		0	0	0	0	0	0	0	10.88	54.83	110.9
9	EXIDE LIFE		338.86	425.38	707.2	1158.87	1442.28	1642.65	1708.95	1679.98	1742.36	1830.67
10	FUTURE GENERALI		0	0	0	2.49	152.6	541.51	726.16	779.58	678.29	634.16
11	HDFC STANDARD		686.63	1569.91	2855.87	4858.56	5564.69	7005.1	9004.17	10202.4	11322.68	12062.9
12	ICICI PRUDENTIAL		2363.82	4261.05	7912.99	13561.06	15356.22	16528.75	17880.63	14021.58	13538.24	12428.65
13	IDBI FEDERAL		0	0	0	11.9	318.97	571.12	811	736.7	804.68	826.25
14	INDIAFIRST		0	0	0	0	0	201.6	798.43	1297.93	1690.08	2143.36
15	KOTAK MAHINDRA		466.16	621.85	971.51	1691.14	2343.19	2868.05	2975.51	2937.43	2777.78	2700.79
16	MAX LIFE		413.43	788.13	1500.28	2714.6	3857.26	4860.54	5812.63	6390.53	6638.7	7278.54
17	PNB METLIFE		81.53	205.99	492.71	1159.54	1996.64	2536.01	2508.17	2677.5	2429.52	2240.59
18	RELIANCE		106.55	224.21	1004.66	3225.44	4932.54	6604.9	6571.15	5497.62	4045.39	4283.4
19	SAHARA		1.74	27.66	51	143.49	206.47	250.59	243.41	225.95	205.38	204.63
20	SBI LIFE		601.18	1075.32	2928.49	5622.14	7212.1	10104.03	12945.29	13133.74	10450.03	10738.6
21	SHRIRAM LIFE		0	10.33	184.16	358.05	436.17	611.27	821.52	644.16	618.07	594.24
22	STAR UNION DAICHI		0	0	0	0	50.19	530.37	933.31	1271.95	1068.8	948.75
23	TATA AIA		497.04	880.19	1367.18	2046.35	2747.5	3493.78	3985.22	3630.3	2760.43	2323.7
24	Total of Private Sector Insurers PRIVATE SECTOR		7727.51 (147.65)	15083.54 (95.19)	28253.00 (87.31)	51561.42 (82.50)	64497.43 (25.09)	79369.94 (23.06)	88165.24 (11.08)	84182.83 (-4.52)	78398.91 (-6.87)	77340.90 (-1.35)
25	Life insurance Corporation of India (L.I.C)		75127.29 (18.25)	90792.22 (20.85)	127822.84 (40.79)	149789.99 (17.19)	157288.04 (5.01)	186077.31 (18.30)	203473.40 (9.35)	202889.28 (-0.29)	208803.58 (2.92)	236942.30 (13.48)
26	GRAND TOTAL		82854.80 (24.31)	105875.76 (27.78)	156075.84 (47.41)	201351.41 (29.01)	221785.47 (10.15)	265447.25 (19.69)	291638.64 (9.87)	287072.11 (-1.57)	287202.49 (0.05)	314283.20 (9.43)

Source: Annual Report of I.R.D.A: (from-2007 to 2014)
 (Figures in brackets shows the percentage change in total premium with respect to previous year.)

Data Analysis: ANOVA Technique

Anova table I: (Two-Factor Without Replication) to analyze the variance of total premium amongst insurers and time span.

<i>SUMMARY</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Row 1	10	1925.36	192.536	45285.52478
Row 2	10	17043.49	1704.349	593808.6089
Row 3	10	71079.63	7107.963	11338305.9
Row 4	10	4339.68	433.968	139075.5874
Row 5	10	38913.29	3891.329	3723642.485
Row 6	10	8249.83	824.983	746593.9345
Row 7	10	846.51	84.651	12930.65088
Row 8	10	176.61	17.661	1367.15601
Row 9	10	12677.2	1267.72	330692.2577
Row 10	10	3514.79	351.479	119826.7464
Row 11	10	65132.91	6513.291	16598440.35
Row 12	10	117853	11785.299	27157690.36
Row 13	10	4080.62	408.062	143729.158
Row 14	10	6131.4	613.14	672634.5789
Row 15	10	20353.41	2035.341	1021154.687
Row 16	10	40254.64	4025.464	6505187.73
Row 17	10	16328.2	1632.82	1086223.96
Row 18	10	36495.86	3649.586	6038981.876
Row 19	10	1560.32	156.032	8920.005996
Row 20	10	74810.92	7481.092	22304110.27
Row 21	10	4277.97	427.797	80109.20947
Row 22	10	4803.37	480.337	278662.1554
Row 23	10	23731.69	2373.169	1399452.067
Row 24	10	1639006	163900.625	2855474835
Column 1	24	82854.8	3452.283333	233355033
Column 2	24	105875.8	4411.490417	339641664.8
Column 3	24	156075.9	6503.160417	671432029.8
Column 4	24	201351.4	8389.642083	918409992.8
Column 5	24	221785.5	9241.060417	1008931972
Column 6	24	265447.2	11060.30125	1407780642
Column 7	24	291638.7	12151.61125	1681455339
Column 8	24	287072.1	11961.33792	1670088871
Column 9	24	287202.5	11966.76958	1772032105
Column 10	24	314283.2	13095.1325	2287221782

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Rows	2.51732E+11	23	10944871477	94.21895782	1.79604E-96	1.581608
Columns	2556401986	9	284044665.1	2.445199322	0.011532879	1.925321
Error	24045992953	207	116164217.2			
Total	2.78334E+11	239				

Anova table 2:(Single-Factor) to analyze the variance of total premium amongst Public and private Insurers

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Row 1	10	574580.7	57458.07	9.09E+08
Row 2	10	1639006	163900.6	2.86E+09

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	56650085446	1	5.67E+10	30.10066	3.28E-05	4.413873
Within Groups	33876380929	18	1.88E+09			
Total	90526466374	19				

Interpretation of ANOVA & Findings

For Anova table 1-

(Across the coloums) -, As $F(2.44) > F \text{ crit}(1.92)$ hence we reject the Null hypothesis, therefore the first set of alternate hypothesis holds true that there is significance difference amongst the total insurance premium with respect to time span of ten years and this difference is not due to just a chance.

Across the rows-As $F(94.21) > F \text{ crit}(1.58)$ -, hence at 5% level of confidence we reject the Null hypothesis, therefore the second set of alternate hypothesis holds true that there is significance difference amongst the total insurance premium across different insurance companies and this difference is not due to just a chance, Therefore we can conclude that total insurance premium differs significantly from company to company.

For Anova table 2-

Across the Rows-As $F(30.10) > F \text{ crit}(4.41)$ -, hence at 5% level of confidence we reject the Null hypothesis, therefore the third set of alternate hypothesis holds true that there is a significance difference of total insurance premium between public and private insurance companies.

Thus it's clear from the above analysis that total insurance premium depends upon the choice of the insurance company and time period and also total insurance premium differs significantly between a public sector company L.I.C (Life Insurance Corporation of India) and all other private sector companies put together. It's also clear from the data that since the year 2010 there has been a decline in the new business premium of private insurers whereas public sector company L.I.C has continued growth in that period as well keeping the total growth of Indian life insurance premium on positive side. Very high degree of correlation is found between total insurance premium and insurance density which is a healthy sign but moderate degree of correlation is found between total insurance premium and insurance penetration needs an attention.

Insurance companies and regulators must create awareness in the common public that insurance products are the basic need of the family to protect themselves against any financial losses due to future uncertainty and this ultimate benefit can be provided by the insurance policies only, tax savings and maturity benefits are the value additions in insurance policies. Awareness should be there that Insurance plays an important role in individual's goal related to pension, child education and wealth creation and to have an insurance culture in healthy economy.

Service quality of the insurance companies has to be as per the expectation of the clients. Integration of transparency in processes, fairness in commitments, prompts settlement of claim, professional manpower and technological resources should be done to maximize the customer value across the value chain. Strict action must be taken to stop mis-selling practices by the advisors/agents to gain the customer confidence for sustainability. Persistency in paying premiums and customer retention would be another major focus zone by the Indian insurers. Quality after sale service as per the customers' expectations, would be the key to enhance persistency and retention.

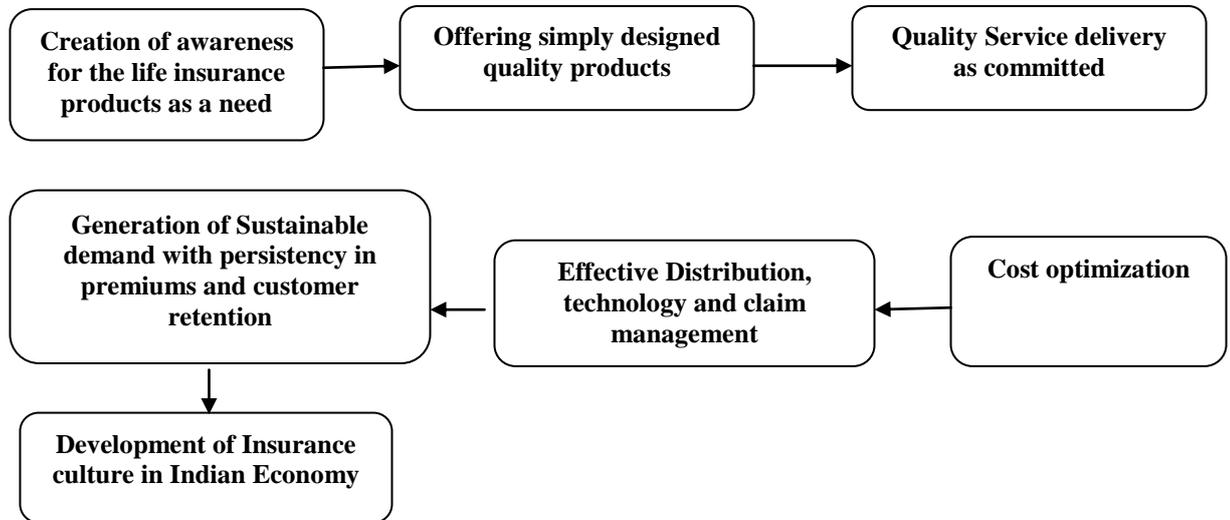
Extension of income tax rebate limit under section 80C of Indian Income tax act to Rs 1.5 lakhs would encourage the customers to invest and stay invested in their existing life policies.

Role of distribution channels and simplified processes would be very significant while administering prime-minister's 'Jeevan Jyoti Bema Yojna' and 'Suraksha Beema Yojna' as these schemes are vital for expansion of insurance in rural markets and thus need major attention of insurance companies.

Ultimate challenge is to win the customer confidence and trust by providing simple products, quality service as per the commitments to create a viable and spontaneous demand for the life insurance products to have a sustainable growth of Indian life insurance industry.

Recommendations-

SUGGESTED GROWTH MODEL –



(FIGURE 1- GROWTH MODEL FOR THE INDUSTRY)

Conclusion –

The Indian insurance sector has immense potential to make considerable contributions to growth of the economy and also to insure the lives of the untapped population. Given the host of challenges facing the industry today, a intensive effort from all the key participants is required to put the industry back on the growth trajectory. It is time to institute fundamental changes in functioning of the industry so as to make the growth rate sustainable. While the industry needs to adopt a more responsible approach, the regulator needs to formulate a long term vision for the development of the industry and the government needs to provision a more conducive environment for the industry to grow. All the participants need to work together to lead the industry towards a sustainable profitable growth in the near future.

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Role Of Pharmexcil In Making India A Global Pharmacy Of The World

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Abstract

“**Pharmaceutical**” word comes from the Greek word Pharmakeia. The pharmaceuticals industry is involved in marketing, developing and producing pharmaceuticals and drugs licensed for the use of medications. Pharma companies deal in branded medications, generic drugs and medical devices and they are subject to different laws and regulations regarding testing, patenting, safety and marketing of drugs. The various categories of products under pharmaceuticals and related sector are:

- Bulk Drugs (APIs)
- Drug Intermediates
- Drug Formulations
- Biotechnology
- Biological Products
- Herbal Products (Ayurveda, Siddha & Unani)
- Medicinal Plants
- Homeopathy
- Nutraceuticals and Physiochemical
- Diagnostics
- Clinical Research
- Surgical

The pharmaceutical industry consists of companies that manufacture, sell and patent drugs that have a therapeutic effect. The market is very competitive and entry is difficult due to a combination of strict rules and the need for further research and development. In addition, the high costs of research and development, the slow process of clinical trials, patents expiry and the difficulty in obtaining product approval by the appropriate regulatory agencies are the main challenges faced by the industry.

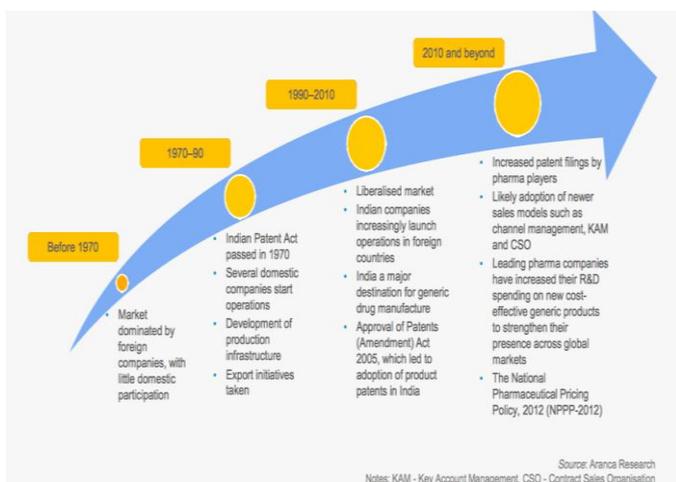
Evolution of Pharmaceutical Industry in India

From ancient times, India is known for its Unani and Ayurvedic medicine. After the advent of British, the Central Government of British India introduced the allopathic form of medicine in the country (Mazumdar 2013). There were no indigenous production units in the country during that time. The foreign companies operating in India exported raw materials from India and imported finished goods back into the country (Mazumdar 2013). Though there were some efforts by few entrepreneurs to establish indigenous companies, still production of drugs in the country was low. The Indian pharmaceutical industry can be said to have begun with the setting up of ‘Bengal Chemical and Pharmaceutical Works’ in Calcutta in 1852 (Mazumdar 2013).

The pharmaceutical industry, in India, got momentum during the Second World War when there was decline in import of drugs by foreign companies and many companies like Unichem, Chemo Pharma, Zandu

Pharmaceutical Works, Calcutta Chemicals, Standard Chemicals, Chemical Industrial and Pharmaceutical Laboratories (now known as Cipla), East India Pharmaceutical Works and others were established (Mazumdar 2013). Post-independence, many public sector companies such as Hindustan Antibiotics Ltd. and Indian Drugs and Pharmaceuticals Ltd. were set up to reduce the imports of important antibiotics and also to meet the country’s demand from indigenous production.

Currently, the pharmaceutical industry in India is conspicuous by the large presence of private sector which has captured a substantial share in the domestic & external market due to factors such as conducive regulatory environment, past patent policies, low cost of innovation, access to funds from banks, low cost of setting up and running high technology manufacturing facilities, etc. The public sector as in many other sectors contributed in strategic areas but has gradually been overtaken by the private players.



Source : IBEF Report on Pharmaceutical Sector, March 2015

The Indian Pharmaceutical Industry today is in the front rank of India's science-based industries with wide ranging capabilities in the complex field of drug manufacturing and technology. It ranks very high in the third world, in terms of technology, quality and range of medicines manufactured. From simple headache pills to sophisticated antibiotics and complex cardiac compounds, almost every type of medicine is now made indigenously.

The Indian Pharmaceuticals Industry mainly consists of manufacturers of Bulk drugs and formulations. Bulk Drugs include the Active Pharmaceuticals Ingredients (APIs), which are used to manufacture formulations. India is self-sufficient when it comes to formulations though some lifesaving drugs are still imported. India is counted as a good source of quality and cheap drugs for the rest of the world, which widens the growth of this sector in India.

Characteristics of Indian Pharmaceutical Industry

According to Pharmexcil there are approximately 10,500 manufacturing units and over 3,000 pharmaceutical companies in India. These units produce the complete range of pharmaceutical formulations, i.e., medicines ready for consumption by patients and bulk drugs, i.e., chemicals having therapeutic value and used for production of pharmaceutical formulations.

Following the de-licensing of the pharmaceutical industry, industrial licensing for most of the drugs and pharmaceutical products has been done away with. Manufacturers are free to produce any drug duly approved by the Drug Control Authority.

As per the Annual Report (2013-14) of Department of Pharmaceuticals, the pharmaceutical industry in India meets around 80% of the country's demand for bulk drugs, drug intermediates, pharmaceutical formulations, chemicals, tablets, capsules, orals and injectibles.

Indian Pharmaceutical industry is estimated to be approx. USD \$ 26 billion industry in 2014 and according to the IBEF report on the Pharmaceutical sector it is

expected to grow at a CAGR of 14.5% and will reach USD 55 billion by 2020.

India is currently recognized as a high-quality, low-cost skilled producer of pharmaceuticals. It is seen not only as a manufacturing base for APIs and formulations, but also as an emerging hub for biotechnology, bioinformatics, contract research, clinical data management and clinical trials. Tremendous opportunities are available for Indian Pharma industry in post 2005 era to manufacture and export many products getting off-patented. Its immense strength in manufacturing quality medicines at affordable prices made the Indian Pharma industry to compete both in regulated and non-regulated markets. The country has achieved the distinction of providing healthcare at very low cost while maintaining profitability.

Apart from its strengths in manufacturing and exporting allopathic medicines, India is known for its own systems of medicines with about 7000 units manufacturing various Indian system of medicines viz., Ayurveda, Unani, Siddha, Homeopathy etc. Though strong in cultivation/manufacture of Indian system of medicines, India's share in the global herbal market is negligible and there is tremendous scope for export.

At present, India is among the top 15 pharmaceutical exporters worldwide and with the largest number of US FDA inspected plants, outside the USA. Various other agencies like MHRA UK, MCA South Africa, TGA Australia, HPB Canada have approved scores of plants in India.

According to Department of Industrial Policy and Promotion (DIPP), the cumulative drugs and pharmaceuticals sector attracted foreign direct investments (FDI) worth US\$ 13.33 billion from April 2000 to June 2015, which is 3.5% of the total FDI inflow in the country.

As per the government regulations, 100% FDI is permitted in pharmaceutical sector under the automatic route for Greenfield, whereas for the brownfield pharmaceuticals sector, 100% FDI is permitted under the government approval route. The Government also have permitted 100% FDI, under the automatic route, for manufacturing of medical devices/ equipments both for brownfield and greenfield investments.

Major Pharmaceuticals companies in India

In India, both public and private limited companies are operating in this industry, with major contribution from the private players. After liberalization of the Indian economy many Multinational companies have also started operation in India.

Major Private players in Pharmaceuticals sector in India

Both India and Multinational companies are among the key private players in the sector. Top 25 pharmaceutical companies in India are listed in Table 1 below

Table 1: Top 25 pharmaceutical companies in India according to market capitalization (2015)

S.No	Company Name	Market Cap (Rs. cr)
1	Sun Pharma	203,433.15
2	Lupin	81,971.18
3	Dr Reddys Labs	67,872.91
4	Cipla	52,157.64
5	Aurobindo Pharm	42,346.19
6	Cadila Health	36,535.33
7	Glenmark	28,387.73
8	GlaxoSmithKline	28,065.50
9	Divis Labs	27,950.52
10	Torrent Pharma	26,103.45
11	Piramal Enter	14,646.29
12	Wockhardt	13,131.15
13	Alembic Pharma	12,683.35
14	Ajanta Pharma	12,116.45
15	Abbott India	11,150.36
16	Pfizer	10,056.72
17	Ipca Labs	9,307.18
18	Sanofi India	8,935.88
19	Biocon	8,667.00
20	Sun Pharma Adv	8,558.05
21	Natco Pharma	7,416.73
22	Strides Arcolab	6,406.18
23	Jubilant Life	4,860.46
24	Shilpa	3,542.64
25	Sequent Scienti	3,361.56

Source : National Stock Exchange

Central Public Sector Enterprises in the pharmaceutical sector

In India, there are five Central Public Sector Enterprises (CPSEs) in the pharmaceutical sector. These CPSEs are under the administrative control of this Department of Pharmaceuticals. Out of these five CPSEs, Karnataka Antibiotic & Pharmaceuticals Limited (KAPL) is the only profit making CPSE. Three CPSEs are sick and are referred to Board for Industrial & Financial Reconstruction (BIFR). Indian Drug & Pharmaceuticals Limited (IDPL), Hindustan Antibiotic Limited (HAL) & Bengal Chemicals & Pharmaceuticals Limited (BCPL) are the CPSEs referred to BIFR. Rajasthan Drugs & Pharmaceuticals Limited (RDPL) reported losses for the first time in the financial year 2013-14. List of PSUs and their financial performance is provided in Table 2.

Table 2: Performance of CPSEs from 2011-12 to 2014-15

CPSEs	2011-12		2012-13		2013-14		2014-15 upto Dec.14	
	Production	Sale	Production	Sale	Production	Sale	Production	Sale
KAPL	25100.00	22310.00	24739.00	21421.00	27573.00	24159.00	20549.00	18390.00
RDPL	8225.85	8271.89	8622.03	8567.27	5493.36	4350.55	1218.00	1250.00
HAL			4873.00	5209.00	2766.00	3011.00	793.00	805.00

Rs. in lakhs

BCPL	517.00	4825.00	3632.00	2737.00	197.00	1687.00	4679.00	3190.00
IDPL	5078.00	5069.00	5871.00	5947.00	6283.00	6018.00	5299.00	4600.00

Source : Annual Report, Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers.

Over a period of time many pharmaceutical associations have also come up to support the companies in their endeavour to make India a leading player in the global market. Indian Drug Manufacturers' Association (IDMA), The Organisation of Pharmaceutical Producers of India (OPPI), The Bulk Drug Manufacturers Association (BDMA), The Confederation of Indian Pharmaceutical Industry (SSI), Indian Pharmaceutical Association (IPA), Association of Pharmaceutical Teachers of India, All India Small Scale Pharmaceutical Manufacturers (AISSPM), are some of the associations that are regularly providing requisite support to the pharmaceutical companies.

Pharmaceutical Exports of India

Drugs, Pharmaceuticals and fine chemicals is Fourth largest exported principal commodity of the country accounting for 10.22% of India's total exports Table 3.

Table 3 : Export of Principal Commodities Groups from India 2013-14 and 2014-15

Values in Mn US

Commodity	Mar 2014	Mar 2015	rowth	are
Petroleum Crude & Products	63,177.46	56,794.15	-10.1	18.3
Gems & Jewellery	41,389.07	41,266.07	-0.3	13.3
Textiles & Allied Products	36,967.56	37,140.74	0.47	1.97
Drugs, Pharmaceuticals and fine chemicals	30,793.62	31,731.22	3.04	10.22
Agri & Allied Products	32,953.57	30,147.31	-8.52	9.71
Transport Equipments	22,164.67	26,636.37	20.17	8.58
Base Metals	22,365.63	24,742.75	10.63	7.97
Machinery	17,569.36	19,705.35	12.16	6.35
Plastic & Rubber Articles	6,860.02	6,615.17	-3.57	2.13
Woolen & Leather Manufactures	5,722.54	6,195.21	8.26	2.12
Electronics Items	7,634.85	6,009.07	-21.29	1.94
Marine Products	5,016.46	5,510.49	9.85	1.78
Articles of Stone, Plaster, Cement, Asbestos, Mica Or Similar Materials; Ceramic Products; Glass And Glassware	3,600.58	4,042.51	12.27	1.3
Ores & Minerals	3,583.86	2,410.18	-32.75	0.78
Paper & Related Products	2,099.81	2,180.66	3.85	0.7
Optical, Medical & Surgical Instruments	1,562.96	1,686.34	7.89	0.54
Plantation	1,625.05	1,502.88	-7.52	0.48
Sports Goods	236.45	274.5	16.09	0.09
Office Equipments	30.89	54.77	77.31	0.02
Project Goods	47.35	36.59	-22.73	0.01
Others	9,003.52	5,656.13	-37.18	1.82
Total	314,405.29	310,338.47	-1.29	100

DGCIS, Kolkata DOC-NIC

Further, among the commodity group Drugs, Pharmaceuticals and Fine chemicals, bulk drugs and formulations have significant share of 35% and 11% respectively in 2013-14 (Table 4).

Table 4 : Export of products under commodity group Drugs, Pharmaceuticals and Fine chemicals

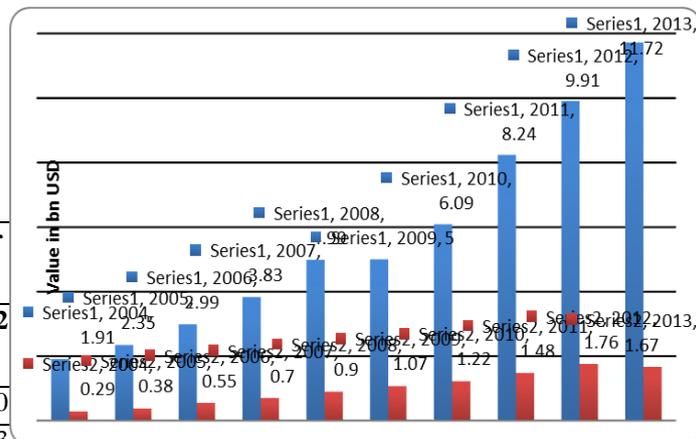
Commodity	Apr-Mar 2014	Apr-Mar 2015	%Growth	%Share
Drugs, Pharmaceuticals And Fine	30,793.62	31,731.22	3.04	10.22
Fertilizers	6.42	7.75	20.8	0
Fertilizers	75.39	82.54	9.47	0.03
Bulk Drugs,	3,610.70	3,561.39	-1.37	1.15
Dye	248.14	239.85	-3.34	0.08
Dyes	1,904.67	2,129.98	11.83	0.69
Drug	10,669.04	11,215.86	5.13	3.61
Agro Chemicals	1,923.64	1,951.77	1.46	0.63
Inorganic	721.25	683.59	-5.22	0.22
Organic	5,641.15	5,394.35	-4.37	1.74
Other	655.11	742.21	13.29	0.24
Cosmetics And	1,325.86	1,404.01	5.89	0.45
Essential Oils	71	90.17	27	0.03
Residual	3,225.27	3,490.25	8.22	1.12
Paint, Varnish	645.91	669.06	3.58	0.22
Graphite, Explosives And	70.07	68.46	-2.31	0.02

India's Exports of Drugs, Pharmaceuticals stood at USD 11.72 billion in 2013, recording a growth rate of 18.26 % over previous year and in line with last two decades there was positive balance of trade (Table 5 and Figure 2).

Table 5 : Import, Export and Trade balance of Indian pharmaceutical products (2004-2013)

S.No	Year	Export of pharma products	Import of pharma products	Trade Balance
1	2004	1.91	0.29	1.62
2	2005	2.35	0.38	1.97
3	2006	2.99	0.55	2.44
4	2007	3.83	0.70	3.13
5	2008	4.99	0.90	4.09
6	2009	5.00	1.07	3.93
7	2010	6.09	1.22	4.87
8	2011	8.24	1.48	6.76
9	2012	9.91	1.76	8.15
10	2013	11.72	1.67	10.05

Figure 2 : Import and Export of Indian pharmaceutical products (2004-2013)



Major markets for Indian Pharmaceutical products

The top 25 destinations of India's pharmaceutical exports with values in 2013-14 are given in Table 6 below. USA remains the top export destination with a share of 30.90%. Russian Federation, South Africa, United Kingdom with 5.34%, 4.35%, 3.63% and 3.20% are among the top 5 export destinations.

Table 6 : Major destinations of Indian Pharmaceutical Products 2013-14

Rank	Export Destination	Export Value	%age share
1	USA	3.62	30.90
2	Russian Federation	0.63	5.34
3	South Africa	0.51	4.35
4	United Kingdom	0.43	3.63
5	Nigeria	0.37	3.20
6	Germany	0.25	2.16
7	Kenya	0.24	2.02
8	Netherlands	0.20	1.74
9	Australia	0.18	1.52
10	Brazil	0.17	1.45
11	Sri Lanka	0.17	1.41
12	Canada	0.16	1.37
13	Viet Nam	0.16	1.34
14	Ghana	0.16	1.34
15	Myanmar	0.15	1.28
16	Uganda	0.15	1.25
17	United Rep. of Tanzania	0.14	1.18
18	Ethiopia	0.14	1.18
19	France	0.14	1.17
20	Nepal	0.13	1.13
21	Philippines	0.13	1.11
22	Zambia	0.12	1.03
23	Ukraine	0.12	1.02
24	Zimbabwe	0.10	0.83
25	Malawi	0.09	0.75
	RoW	3.09	26.34
	Total	11.73	100.00

Future Prospects for Indian Pharmaceuticals Industry

The Indian pharma industry has made remarkable progress in last two decades. It has evolved from the industry focussing on providing healthcare solutions to the domestic market to a globally renowned sector due to its skilled workforce and R&D capabilities. With growing consumer class globally and numerous strengths, the Indian pharmaceutical industry will grow many fold and continue to be an attractive investment destination.

Role Of Pharmexcil in promoting Export from India

In India Department of Commerce, under Ministry of Commerce, is the apex organization for all kind of trade related activities. The first Export Promotion Council set up by Department of Commerce was Engineering Export Promotion Council which was constituted way back in 1955-56 when the nascent Indian engineering sector was in the process of diversifying and restructuring the narrow export base of the industry. The Council successfully achieved its goal and today Engineering Products are among the top five items of export from India. Many Councils were subsequently set up by the Ministry of Commerce to promote export of products that have potential for export from India.

On the similar lines Pharmexcil (Pharmaceuticals Export Promotion Council) was set up in the year 2004 for increasing export of Pharmaceutical Products from India. Prior to that Pharmaceutical products were under the purview of Basic Chemicals, Pharmaceuticals and Cosmetics Export Promotion Council. Pharmaceutical Products has lot of potential for export from the country but proper guidance was lacking in this director, therefore Ministry of Commerce decided to form Pharmexcil which could help the pharmaceutical companies in exploring the overseas market.

Considering the dynamic growth of Indian Pharmaceuticals industry, a knowledge based industry, and on the recommendations of four major Pharma associations, viz, Indian Drug Manufacturers Association (IDMA), Organisation of Pharmaceutical Producers of India (OPPI), Bulk Drug Manufacturers Association (BDMA) and All India Small Scale Pharmaceutical Manufacturers(AISSPM), Ministry of Commerce & Industry realized the need for separate export promotion council for export of these products. Accordingly, Pharmaceuticals Export Promotion Council (PHARMEXCIL) was formed 12th May 2004. Pharmexcil today is the authorized agency of the government of India for promotion of pharmaceutical exports from India. Various pharmaceutical products, namely, bulk drugs, formulations, Biotech Products, Indian Systems of medicines, herbal products, diagnostics, clinical research, etc. are covered under its purview. Pharmexcil takes up several external trade promotion activities by organizing trade delegations outside India, arranging buyer-seller meetings, international seminars, etc. to ensure awareness about

the Indian Pharmaceutical Industry in the overseas market.

The Pharma Industry had grown manifold since the inception of Pharmexcil in 2005. Pharmexcil has contributed significantly in promoting export of Pharma products from the country despite all the constraints in the domestic as well as the international market

Strategic initiatives of the Council to promote export of pharmaceutical products

Looking at the vast potential for Pharmaceutical products globally, and also to achieve its objective to promote pharmaceutical products in the international market, Pharmexcil was set up to provide following services of the members:

- To issue Registration-cum-Membership Certificate, a compulsory requirement for all Pharmaceutical exporters in India
- To keep in communication with Indian Missions abroad, Chambers of Commerce and other related bodies throughout the world to increase the exports of Pharmaceuticals products from India.
- To advise and make representations on behalf of the industry to the Govt. of India on various issues like Foreign Trade Policy, Central Excise, Customs, Countervailing Duties, Anti Dumping Duties, Market Development Schemes etc., as far as exports of pharmaceuticals are concerned
- To undertake market studies in various countries where there is good potential for Indian pharmaceuticals products
- To organise trade delegations to various countries, participate in exhibitions abroad to help the Indian Pharma exporters to enhance their exports and to organize exhibitions in India to facilitate one to one interaction between the buyer and seller.
- To disseminate information like Trade barriers, drug regulatory requirements etc., to its members
- To take up all necessary activities for improving the India's Brand image in various countries
- To enter into MOUs with various agencies like Govt. procurement agencies, Chambers of commerce in various countries for bilateral assistance for improving the exports of Pharmaceutical Products from India.
- To collect trade enquiries from various countries and disseminate the same among members
- To entertain the trade complaints received from various foreign buyers and find out amicable solutions to the problems.
- To assist the members to get their MDA/MAI claims cleared from Govt. of India.

Initiatives taken by Pharmexcil in 2013-14

In order to provide the requisite push, support and guidance to the pharmaceutical sector pharmexcil took many initiatives to create an niche for the sector on the global map.

• Participation in Overseas Trade Fair and Buyers Sellers Meet

The council facilitates the participation of its member in overseas trade fair and major International Trade Fairs in India, and assist them in getting financial assistance under MDA scheme of Ministry of Commerce. Members of the council can have one to one interaction with the buyer during the Buyer Seller Meet / Reverse Buyer Seller Meet, the expenses for the same are again covered under the MDA Scheme.

Pharmexcil ensures participation of its members in CPhI India and CPhI exhibitions held worldwide. CPhI stands for Convention on Pharmaceutical Ingredients and is a leading pharma event which mainly serves as a international platform for Global meetings, International awards and promotional activity. CPhI India witnesses presence of pharma professionals from all over the world and facilitates initiating and closing of business deals. This opportunity is taken by the members of the Council to show case the products and services and to enhance the brand of Indian Pharmaceutical Products globally.

Under the Central Government's Market Access Initiative (MAI) scheme, Pharmexcil take delegations to different countries to explore the markets there. The council identifies individual exporters (especially in the medium range) who have good facilities, potential to manufacture quality drugs and are looking for markets abroad, but don't have exposure and are unaware of the procedure. The Council then connect these companies with the right people in overseas markets. With the help of Indian embassies abroad, Council identify and approach buyers, examine their profiles and arrange their visits to India as well.

Interactive Awareness Seminar

Pharmexcil also organize interactive awareness seminars for its members. The seminars are aimed at sensitizing the Indian exporters about various policy initiatives of the Government of India to promote export specifically for the Indian Pharmaceutical products

Brand India Pharma Campaign

Pharmexcil also launched Brand India Pharma Campaign to counter the negative publicity of Indian Pharmaceuticals products in foreign market. The key objectives of these campaigns are:

- To raise the awareness of Indian Pharma success story
- To create awareness that Indian generics are not counterfeits and they are bonafide medicines of standard quality

- To improve the credibility of Indian Pharma industry
- To protect it from dubious allegations by vested interests
- To position India as global pharmacy of world
- To increase business on a sustainable basis & take it to the next orbit
- To highlight the growth drivers-government support & regulatory framework, cost efficiencies, technical capabilities

Market Reports

Pharmexcil with leading International agencies conduct market research in existing and potential markets. Focus of such reports are to study countries, market sizes, barriers and drug registration barriers and how to handle these issues for the member companies associated with the Council.

Assisting Members in overcoming registration hurdles in the overseas market

Importing countries sometimes charge huge fees for registering the drugs for sale in their country. For a product, registration prices may vary from Rs 10,000 to Rs 10 lakh. The government has sanctioned a scheme under MAI that reimburses 50 percent of the registration fees, with an upper limit of Rs 50 lakh per annum per company. If a company has paid Rs 10 lakh to register a drug, it can come to Pharmaexcil, show the payment slip and the original registration document, and get 50 percent of the registration fees or up to Rs 50 lakh per annum refunded. This scheme is open to all irrespective of the size of the company

IPHEX : Showcasing Indian Products for the global market

The Pharmaceuticals Export Promotion Council of India (Pharmexcil) took a major initiative for global showcasing of Indian pharma products through its Annual International exhibition iPHEX. iPHEX was launched in 2013 and the first exhibition was attended by over 500 overseas delegates from 104 countries. iPHEX is India's own pharmaceutical show, which is organized with the support of Ministry of Commerce & Industry, Department of Commerce, Government of India. iPHEX 2013 was held in Mumbai from April 24-26, 2013.

It had over 250 stalls exhibiting Indian pharma companies like Ranbaxy, Lupin, Glenmark, Mylan, MSN Labs, Ipca, Ind-Swift, Strides, Aurobindo, Mankind, to name a few. About 60 per cent of stalls belonged to SMEs which present a very robust, competent and competitive Indian pharma sector. Over 5000 trade visitors including overseas buyers, delegates from highly regulated markets like US, Europe, Australia, New Zealand etc attended the event. The overseas buyers were invited with the support of Ministry of Commerce and Industry Government of India and the exhibition resulted in huge business opportunities for the Indian companies.

Over 40 senior regulatory officials from 20 countries like Ghana, Tanzania, Senegal, Taiwan, Vietnam, Philippine, Egypt, Nigeria, Cuba, Sri Lanka, Zimbabwe, etc., were present during the event. The presence of large number of drug regulators from overseas market is expected to immensely help Pharmexcil and its members to promote the quality and affordability aspect as envisaged in Brand India Pharma Campaign.

iPHEX is slightly different from other international events held in India. In iPHEX, the Council planned one-to-one meeting between the Indian exporter and overseas buyers, technical conferences are also part of the event, where the invited drug regulators made presentations about drug regulatory procedures in their respective countries, for the benefit of the Indian pharma industry

Patent Facilitation Centre

The Pharmaceutical Industry, with its rich scientific talents and research capabilities, supported by Intellectual Property Protection regime is well set to take on the international market. India is successfully coping with the challenges of Post 2005 Patent scenario. To bring awareness about patents and its complications among small and medium scale exporters and also to help them with preliminary information on patents status of exported drugs in destination countries. Pharmexcil has established Patents Facilitation Cell, with the financial support from Department of Pharmaceuticals, Govt. of India.

Patent Facilitation Centre has been started at Pharmexcil, Hyderabad under the fund support of Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers, Govt. of India. The centre was inaugurated in July 2008.

The main objectives of the cell are:

- Creating awareness among its members by organizing Patents Awareness Programs across the nation
- Providing information on Pharmaceutical Patents
- Help organisations in API process in development and formulation development.
- Provide Learning & Development in IPR areas. Develop an information base of case laws related to IPR issues. Develop a learning module by experts for members to appreciate the intricacies in developing and defending non-infringing processes and invalidation of patents.
- Information on status of patents in India and overseas market
- Encourage IPRs in pharmaceutical/Healthcare sector by giving incentives

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- Aggressive training programs in IPR with international experts to facilitate R&D in:
 - Developing innovative process patents
 - Training people in international patent laws and regulatory affairs laws
 - Analyzing Legal case studies, etc.

Dissemination of Trade Related Information through the Website of the Council

Considering the vast potential which this industry holds, the Council has strived to provide the latest and updated information to its members so that they are well equipped to grab the opportunities available in the market. The Council provides following trade information to its members to help them explore and exploit the foreign market:

- Trade Enquiries :
- Trade Statistics
- Economic and Commercial Reports
- International Guidelines:
- General Pharma Events
- Reports and Publications
- Indian Missions abroad
- Foreign Missions in India
- Useful Information
- Govt. Notifications / Circulars :
- Government Schemes
- Counterfeit Drugs / Global News
- Drug Regulation / Market Reports /IPR
- Chemical weapons convention

Future Prospects

Pharmaceutical industry can help India transform itself into a knowledge driven economy. The Current success is due to amalgamation of R&D (developing non infringing processes and reverse engineering), manufacturing excellence (designing and running world class facilities with economies of scale), globalisation ability (establishing presence/ acquisitions/ mergers in the international markets). Such multidimensional excellence will make Pharma Industry the torch bearer of the nation paying way for R&D led global market leadership in various goods and services.

Pharmexcil and other related Trade Promotion Organizations / Associations in this sector along with Government of India needs to more proactively nurture this sector by addressing the missing links and strengthening the policy environment to encourage industry to find its rightful place sooner than later.

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A study on talent management practices and its impact on employee satisfaction in service sector with special reference to IT industry in NCR

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Abstract:

Purpose: The objective of this research paper is to investigate the extent to which IT industry in NCR practices talent management and how it impacts the employee satisfaction.

Research Design and Method: The researcher used both quantitative and qualitative methodology; Data was collected through structured interviews and questionnaires with a Sample size of 100 HR Professionals and employees. Companies under IT sector (IBM, Pyramid Consulting and Nucleus software) were selected by using Stratified Random Sampling method. The independent variables of talent management practices include displaying talent management mindset, attracting, career, developing talent and dependent variable is Employee satisfaction.

Findings: Based on this research, researcher has found that the factors of Talent management (Display TM mindset, Attract and Recruit, Career Development) are highly significant and related with employee satisfaction in IT industry whereas Work Engagement doesn't have the statistically significant impact on Employee satisfaction. If talent management strategies are implemented effectively, it will improve employee satisfaction level in the organisation.

Practical Implication: Organizations who would like to implement the talent management strategy in their organisation are advised to: align talent management with the strategic goals of the organization; establish a proper talent assessment tools, conduct a continuous audit of all HRM practices.

Keywords: IT Industry, Talent Management, Employee Satisfaction, Employee Retention

Introduction

In 21 century companies are facing numerous challenges to gain the competitive edge in the market; the most important and often the most costly assets for the companies are its own employees. In order to get success in the maximization of this resource and the subsequent cost, organizations are now focusing on Human Resource Management (HRM).

Human Resource management practices have been formed over a time by various historical forces. During the 1800s economy primarily depended on agriculture and small family businesses. Human resource management practices were mainly managed by the most senior employees of the organisation. The HRM practice firstly was developed as a result of the Industrial Revolution. During these period factories required large number of employees to operate machines which perform specialized operations. As a result, managers who are specialized in human resources were required to train and schedule workers.

In a quickly changing business environment, associations need to react rapidly to necessities for individuals. In the aggressive situation it has turned into a test for every organization to embrace honed that

would bail the association emerge in the business. The aggressiveness of an organization of an association is measured through the nature of items and administrations offered to clients that are one of a kind from others. In this manner, the best administrations offered to the buyers are aftereffect of the virtuosos brains working behind them.

Human Resource in such manner has turned into a critical capacity in any association. All practices of advertising and funds can be effortlessly imitated yet the ability, the aptitudes and ability of a man can't be copied. Subsequently, it is essential to have an all-around characterized enlistment strategy set up, which can be executed successfully to get the best fits for the empty positions. Selecting the wrong hopeful or dismissing the right applicant could end up being expensive slip-ups for the association. In this manner an enlistment hone in an association must be viable and effective in drawing in the best labour.

The enlistment and determination choice is of prime significance as it is the vehicle for acquiring the best conceivable individual to-occupation fit that will contribute altogether towards the organization's adequacy. It is likewise turning out to be progressively critical, as the organization advances and changes, that

newcomers demonstrate an eagerness to learn, versatility and capacity to fill in as a feature of a group.

As enlistment and determination procedure is needed by each association to place a correct individual at the right occupation, representative engagement is essential to guarantee that the ideal individual stays at that right employment in the association. Worker engagement is a working environment methodology intended to guarantee that representatives are focused on their association's objectives and qualities, propelled to add to authoritative achievement, and are capable in the meantime to improve their own feeling of prosperity. It is the passionate responsibility a representative has to the association and its objectives, bringing about the utilization of optional exertion.

In the global competitive era organisations are facing challenge in developing and retaining a strong talent. Organisations not only do businesses to adjust with the shifting demographics and work force preferences, but also they must build new capabilities. To achieve optimum level of success, organisation requires highly engaged and best performing employees. It is a war to find, develop and retain the best people from the pool, but it's one who can win the war with the right strategies. Managing Talent in IT sector is challenging job. It includes attracting, hiring, developing, rewarding and retaining talent, on the whole. Various companies adopt different approaches towards managing talent like career mapping etc.

Today, almost every organisation has engaged into 'Talent war'. Talent is the new age means of management. It has become imperative for organisations to nurture and protect internal talent for their continued existence. Due to the rapid development of technologies there is a skill gap and talent has also become scarce on one side and retirement of the employees on the other. In one of the research conducted by McKinsey they found that in 1998 when survey was conducted on 75% of the people in 77 large organisation companies are chronologically short of leadership talent. Another research which was conducted by Development Dimensions International (DDI) they says that when executive's talent is hired from outside failure rates are high.

Talent management refers to the ongoing process of analyzing, developing and effectively utilizing talent to meet Business needs which ultimately develops into organisations culture and creates competitive advantage. Talent management focuses on the idea that, for the organisation employees are the most valuable assets. This is also applicable for the organisations – both public and private – as they drive towards the efficiency and deliver the top quality services to the customers, both inside and outside the organisation. Talent management provides opportunity to the organisation to develop the overall organizational implementation strategies and help to drive a competitive advantage in the market. While preparing the organisation for the future well-executed strategy and key programs provides organisations with a valuable connection to the work and the organisations success. Talent management make possible for

organisations to improve business value and to achieve their goals by using strategic HR practices.

Talent Management Defined

Practitioners and consulting companies had the focus towards the talent management more than the academicians. However, lately, there increased interest and attention has been noticed from the researchers. Researchers found that there is inconsistency in the definitions of TM and lack of theoretical frameworks (Scullion, Collings & Caligiuri, 2010).ⁱ Some of the common explanation includes TM as a new term for human resources management practices which is alike to succession planning and more focused towards the management of talented employees in the organisation (Lewis & Heckman, 2006).

The concept of "Talent Management" emerged from the concept of "war for talent", which was first introduced by consultants from the McKinsey in the year 1997. "War for talent" is a real war for the organizations to attract, develop, motivate and retain the talented employees during 1990's (Collings and Mellahi, 2010) ⁱⁱ. During this trend several HR practitioners and consultants have recognized the importance and conducted several excellent studies to examine the talent shortage. As a consequence of this, the phrases "talent acquisition, retention and management" and "attracting, retaining, and developing talent" become popular among human resource management community. Human resource is an unpredictable resource in the organization with many behavioral attributes; if HR practitioners discover and utilize these attributes then this unpredictable resource can be value addition for an organization.

In today's global environment to achieve sustainable growth organisations have to manage their workforce, but is a challenging job for them as manpower is not bounded by any geographic and cultural boundaries ⁱⁱⁱ (Schuler, Jackson, & Tarique, 2011).

There is no exact definition for talent management even several debates have been taken place for the definition of the talent management. Researchers have given several interpretations of talent management in their studies ^{iv} (Collings & Mellahi, 2009).

Goffee and Jones (2007) ^v defined talent as an employee's knowledge and skills which give them potential to produce the value from the available resources in the organisation. Tansley et. al. (2006) ^{vi} in his study he pointed out that the talent can be considered as an amalgamation of employees' skills, knowledge, cognitive ability and potential.

Globally there is a problem related to shortage of the talented employees which affects the wide variety of positions all over the world. In the study of Manpower Group (2011) they found 34 percent of organisations are facing difficulties in filling the vacant positions and organizations are implementing numerous strategies to manage this problem. ^{vii}

Talent management is getting importance and popularity due to the numerous reasons. Now management is aware about the importance of the talent and its insinuation in organisation, so that they are more focused towards the employee development which will help them to face the upcoming challenges (Lawler, 2008)viii.

Lewis and Heckman (2006)ix done an extensive research and critical literature review of the talent management and found a lack of clarity concerning the talent management definition. However, they identified the conceptions of the term. They found that talent management is comprised of “a collection of core functions of human resource department such as recruitment, selection, development and succession planning”. From this perspective, they argued that Talent management system not only works as a part of business strategy but also implemented in the organizational routine processes. Instead of exclusively responsibility of the human resource department to attract and retain the workforce there should be proficient at all levels of hierarchy along the organisation.

According to (Tarique & Schuler, 2010)x there are four important drivers which can strongly impact the talent management practices and policies:

Attracting (includes the policies and practices of recruitment and selection of the talented individuals);

Developing (includes the policies and practices related to job and career related competencies);

Retaining (includes the practices which help organisations to retain talented employees); and

Mobilizing (includes a practice which facilitates the movement of talented employees across countries).

TALENT MANAGEMENT PROCESSES

There is a set of correlations between the talent management elements and the process is linked

together like a strong chain as shown in Figure 1 below (Armstrong, M. 2009)1

Figure 1: The elements of talent management (Adapted from Armstrong, 2009, p. 582)

Figure (1) shows that the talent management process starts with the business strategy which is developed by the organization to target the required talent as well as developing and retaining employees in the organisation who are the central part of this process.

Business plan is the basis of the HR planning process which stipulates the HR requirements for the organisation. Internal resourcing focuses on the development of the policies and programmes which aims to attract, maintain, develop and promote talents in the organisation. External resourcing emphasises on attract and recruit potential employees from outside the organization. On the other hand, retention policies are concerned with retaining the talent by finding risks involved in leaving these talented employees from the organization and tries to avoid them to do so by providing alternative retention schemes.

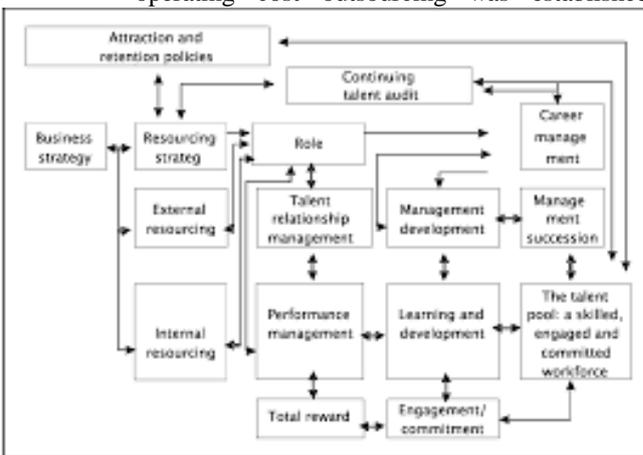
The objective of the talent management is to increase commitment and employee engagement. By ensuring a good relationship with the employees they feel treated fairly in the organisation. Once this objective is achieved then the process is concerned with developing and implementing a performance management culture in the organisation and main focus is to improve the talent skills and capabilities. Succession planning is the important component of talent management process which provides career growth opportunities and assures the flow of talents required by the organization.

Talent Management in IT industry

- 1) ¹ ¹ Armstrong, M. (2009). Armstrong's Handbook of Human Resource Management Practice (11th Edn). London: Kogan Page Ltd.
- 2) xii. Talent Management retrieved from : <http://www.wikipedia>.
- 3) xiii. Driving Successful HR Leadership: Talent Management's Role in Core Business Strategy retrieved from : <http://www.hr.com>

Globalization has increased the importance of information technology for business organizations and has given the new business opportunities. In the next decade, the ability of organizations successes and failures will depend on how effectively they manage their global talent. In every sector, there is war for the right talent. The same is true with the IT industry also. The India majority of companies are facing challenges in attracting and retaining high quality, high potential employees for their organisations.

The impact of Economic transformation and demographic changes has already seen on the talent supply and demand scenario. The emergence of a new generation of workers presents an entirely new set of challenges as well. In earlier days, to reduce the operating cost outsourcing was established as a



business tool. However, the recent shift has been seen towards the value addition, innovation and reduced time to market.

Over the time we can see that the technology has reduced the demand for jobs, particularly at the lower end. In fact, the impact of automation on individuals and societies are resulting 'Robot Economy' which could cause up to 75% unemployment. According to Nasscom, in their study they have mentioned the IT and business process management (BPM) industry employs 3.1 million people, including around one million women. At the end of September 2014, TCS had a headcount of 313,757, while Infosys and Wipro employed 165,411 and 154,297 respectively. They have also conducted an in depth study to find out key elements of talent management.

EMPLOYEE SATISFACTION

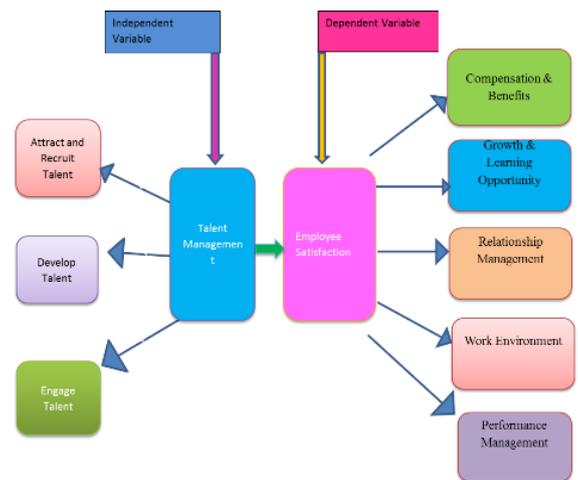
Employee satisfaction can be referred as a measure of how happy are the workers with their job and work environment. There are various factors which affect the organizational effectiveness and one of them is the employee satisfaction. Effective organizations should have the culture which encourages the employee satisfaction. Several studies were conducted and found that if employees are satisfied they will be loyal, productive and affect the customer satisfaction and organizational productivity, Potterfield, (1999).

Employee satisfaction is referred to whether employees in the organization is happy and fulfilling their desires and needs at work. Several research studies explain that in the organization employee

satisfaction is a one of the factor for employee motivation, employee goal achievement and positive employee morale. Having good relationship with the colleagues, attractive compensation packages, good work environment, Growth and learning opportunities, or any other benefits provided the organization may increase the satisfaction level of the employees.

Conceptual framework of Talent Management and its relationship with Employee Satisfaction

Below mentioned Conceptual framework is made by researcher to study the relationship between talent management and employee satisfaction



Objectives of the Study

- To investigate the extent to which IT industry in NCR practices talent management.
- To identify the various challenges of talent management practices in the IT industry
- To establish the relationship between talent management on employee satisfaction.

Research Hypothesis

Main Hypothesis

There is no significant difference in the impact of different parameters of talent management upon the level of employees' satisfaction in the IT industry.

Sub Hypothesis

- H01: There is no significant relationship between the display talent management mind-set and employee satisfaction.
- H02: There is no significant relationship between attracting and recruiting the employees and their satisfaction.
- H03: There is no significant relationship between the Career Development of the employees and their satisfaction.
- H04: There is no significant relationship between the work engagement and the employee satisfaction.
- Research Design and Method:

Research Design and Method

In this research paper researcher used both quantitative and qualitative methodology; Data was collected through structured interviews and questionnaires with a Sample size of 200 HR Professionals and employees. Companies under IT industry were selected by using Stratified Random Sampling method. The independent variables of talent management practices include attracting, selecting, engaging, developing and retaining talent. Employee satisfaction, dependent variable comprises of 4 parameters, i.e. Compensation & Benefits, Growth & Learning Opportunity, Relationship Management and Work place environment.

RESULTS AND FINDINGS

Correlation Analysis

Table 1: Bivariate correlation between Sub Variables of Talent Management (Display TM Mindset, Attract & Recruit, Career Development and Work Engagement) and Employee Satisfaction (N=100)

Correlations		DM	AR	CD	WE	ES
DM	Pearson Correlation	1				
AR	Pearson Correlation	.759**	1			
CD	Pearson Correlation	.871**	.903**	1		
WE	Pearson Correlation	.912**	.853**	.949**	1	
ES	Pearson Correlation	.944**	.880**	.973**	.963**	1

** . Correlation is significant at the 0.01 level (2-tailed).

A correlation analysis was performed to evaluate the relationship among the different variables and to assess the strength of the relationship. The above mentioned table indicates that all the talent management sub variables Display TM mindsets ($r=0.94$, $p \leq .01$) (Attract and recruit ($r=0.88$, $p \leq .01$), career development ($r=0.97$, $p \leq .01$) and work engagement ($r=0.96$, $p \leq .01$.) are found to be highly significant and positively related to employee satisfaction.

Talent Management had a significant relationship with employee satisfaction. So it implies that once

organisation is managing its talent, then there will be an increased level of employee satisfaction.

Regression Analysis

To analyze the relationship between variables (independent and dependent) a regression analysis was undertaken. Moreover regression analysis is used to make a decision whether to accept or reject the hypothesis. In order to accept such hypothesis, the significant value should be between 0.01 and 0.05 confidence intervals.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.993 ^a	.987	.986	.04598

a. Predictors: (Constant), WE, AR, DM, CD

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.823	4	3.706	1752.708	.000 ^b
	Residual	.201	95	.002		
	Total	15.023	99			

a. Dependent Variable: ES

b. Predictors: (Constant), WE, AR, DM, CD

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.988	.043		46.294	.000
	DM	.238	.018	.382	13.070	.000
	AR	.028	.011	.068	2.427	.017
	CD	.304	.028	.507	10.959	.000
	WE	.041	.025	.076	1.665	.099

a. Dependent Variable: ES

The findings from the above table indicates that, the adjusted R value is 98% (that is, Adjusted R value = .98). This infers that 98% of the variance in employee satisfaction can be attributed to parameters of Talent Management. A combination of these independent sub variables appear as statistically significant predictors of employee satisfaction (Sig. = .00).

Career Development (B=.304, t=10.95, Beta=.507, p=0.00), and Display TM mindset (B=.238, t=13.070, Beta=.382, p=.00), Attract and recruit (B=.028, t=2.427, Beta=.068, p=.017) hence this shows that the variables have a significant effect on employee satisfaction whereas Work Engagement (B=.041, t=1.665, Beta=.076, p=.099) shows that it doesn't have the statistically significant impact on Employee satisfaction.

CONCLUSION

In this study, both statistical and theoretical findings showed that there is a significant relationship between the talent management and its sub variables such as Attract and Recruit talent, Career Development with Employee satisfaction whereas Work Engagement shows that it doesn't have the statistically significant impact on Employee satisfaction. Therefore it can be concluded that the organisation that focuses on talent management practices they should be committed for the long term, persistently reflective and strive for the continuous improvement. They need to implement talent management practices and ensure that the organisation support career development and employee involvement in the organizational activities to increase the satisfaction level of the employees.

Organisations simply cannot afford to lag behind in their talent practices and then expect to recruit and retain the workers required to drive the organization's success. Putting in place a talent management strategy which focuses on creating a culture based on performance helps drive efficiency, reduces turnover costs, fosters employee development and assures a high level of services are delivered to customers.

Recommendations

The aim of the study was to investigate the relationship between talent management and employee satisfaction. This study put forward some essential recommendations. Firstly, although compensation plays a significant role in the life of employee, it is recommended that employers must not interpret it as the only basis for retaining their employees because among other things, employees must deserve the kind of compensation they receive. Certainly their qualifications, experience and productivity must be commensurate with the compensation they receive. Secondly, it is currently not enough for organisations to stick solely to the traditional HRM practices. The IT industry must therefore explore other contemporary practices that can equally make significant impact on satisfaction of employees.

Apart from the above mentioned recommendation we can say:

- Organisations should attract and retain skilled and knowledgeable employees.
- Organisations should focus on employees career development activities
- Organisations should continuously invest in increasing employee satisfaction as it's an ongoing process.
-

Suggestions for further research

The following suggestions for further research were made:

- A study of the same variables can be carried out for a longer period of time to confirm or disconfirm the findings.
- Some other instrument for the analysis can be used which are refined for more precise results.
- More sub variables of talent management can be identified and researched for the better prediction of employee satisfaction.

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International Journal of Strategic Management

Amity Global Business School

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Call for Papers for May Issue

Theme of the Journal

The International Journal of *Strategic Management* seeks to publish the highest quality original research with questions, evidence and conclusions that are relevant to strategic management and engaging to strategic management thinkers, professional, scholars from industry and academia all around the globe. We welcome manuscripts with a wider perspective of knowledge and applications. The Editor of IJSM strongly believes that issue of IJSM comprising of strategic management research with arguments, solutions and conclusions has the potential to make an important contribution to the theory and applications both in appraising the current state of strategic management research and in providing a platform for the future development of the field. The journal will add value to both specialized research activities needed to address the diversity of the field applications.

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With this initiative, we look forward to receive submissions that offer new dimensions and insight into redefining strategy concepts. To foster coherence within the field, papers would address what we know and do not know from the extant research and more significantly direct attention to the relationships among concepts and theories within and across the different subfields.

We also foresee submissions that go beyond integrating old theories with new. Papers exploring new phenomena and emerging with novel approaches that merit development would provide a foundation for defining the field's future research streams. Such papers may also point out ways to extend strategic management research by encompassing themes that have gained currency among practitioners and investors but have received limited scholarly attention.

Experts from all over the world are welcome to present different aspects of the business environment. The journal will promote articles with high visibility in the international community. Articles published in the journal can be cited, but certain rules must be applied. Each article citation must include the following key components:

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- Title of the article
- Name, Volume, and Issue of the Journal in which the article is published
- Page Number(s) of the cited information
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