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**“A STUDY AND ANALYSIS OF EXISTING PRACTICES OF
COMPETENCY MAPPING & COMPETENCY DEVELOPMENT
AND MOST PREFERRED PRACTICE OUT OF COMPETENCY
MAPPING AND COMPETENCY DEVELOPMENT FOR
MANAGERIAL PERSONNEL IN SELECT MANUFACTURING
AND SERVICE INDUSTRIES IN PUNE”**

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ABSTRACT:

The aim of this paper is to study and analyze existing practices of competency mapping and competency development. Also study most preferred practice out of Competency Mapping and competency development for managerial personnel. This paper gives the various definitions of Competency, Managerial Competency and Competency Mapping. Managerial competencies are the major type of competency, which required for the success of an organization. Study of Managerial Competency and competency mapping helps to improve the performance to achieve the goals, vision and mission of an organization in the global scenario. It's also help for own development. Skill, Knowledge and ability/attitude are the major part of manager's competency. A competency development helps to improve individual performance and motivate individuals for performing particular job, occupation or industry. This is the new approach to globalization.

Keywords: Competence, Competency, Competency Mapping, Competency Development, Managerial Competency, Knowledge, Skills, Attitude/Ability, Communication skills.

1. INTRODUCTION

The term “competency” plays the important role in improving job performance and in turn qualifies human resources. Especially, in the high competition in corporate world on global level. Now a day's higher level managers like heads and executives requires acquiring a new set of knowledge, skills, and attitudes to face the diversity and complication of the new business environment successfully. Thus the Managerial Competency plays an important role in the global organizations. This is the new approach towards globalization.

Competency mapping helps to analyze Manager's or individual's Strength, Weakness, Opportunities and Treats (SWOT). It also helps them for their career development. Companies are looking for multi skill, multi knowledge higher level managers.

Competency Development helps managerial personnel to improve their knowledge, skills and ability/attitude through various training methods. This is major approach towards globalization.

2. LITERATURE REVIEW:

2.1 Definitions:

2.1.1 Competence is the ability of an individual to do a job properly. The word competence is derived from Latin word "competere" which means 'to be suitable/sufficiency of qualification'.

Woodruffe (1991) "A work – related concept that refers to area of work at which a person is competent".

2.1.2 Competency/Competencies

Hayes (1979)- "Competencies are generic knowledge motive, trait, social role or a skill of a person linked to superior performance on the job".

"An underlying characteristic of a person which results in effective and/or superior performance on the job" (Klemp 1980).

Boyatzis (1982) defined competency as "A capacity that exists in a person that leads to behaviour that meets the job demands within parameters of organizational environment, and that, in turn brings about desired results."

Albanese (1989) – "Competencies are personal characteristics that contribute to effective managerial performance".

Woodruffe (1991) "Competency: A person – related concept that refers to the dimension of behavior lying behind competent performer".

Woodruffe (1991) "Competencies: Often referred as the combination of Competency and Competence".

Hogg (1993) defined competency as 'competencies are the characteristics of a manager that lead to the demonstration of skills and abilities, which results in effective performance within an occupational area. Competency also embodies the capacity to transfer skills and abilities from one area to another.'

Ansfield (1997) “Underlying characteristic of person that results in a effective superior performance”.

The American Heritage Dictionary of English language (2000) provided a general description as “the state or quality of being properly or well qualified” (p. 376).

UNIDO (2002) - “A Competency is a set of skills, related knowledge and attributes that allow an individual to successfully perform a task or an activity within a specific function or job”.

Rankin (2002) “Competencies are definition of skills and behaviours that organization expects their staff to practice in work”.

Competencies can be defined as “Skills, area of knowledge, attitudes and abilities that distinguish high performer. (SeemaSanghi 2012)

2.1.3 Managerial Competency

Managerial Competencies are the competencies which are considered essential for employees with managerial or supervisory responsibility in any functional area including directors and senior posts.

F. Hroník defines a managerial competence as a "bunch of knowledge, skills, experience and characteristic, which support the achievement of the objective."

S. Whiddett and S. Hollyford define managerial competencies as "sets of behaviors that enable individuals demonstrate the effective performance of tasks within the organization”.

C. H. Woodruff defines managerial competency as "a set of employee behaviors that must be used for the position that the tasks arising from this position competently mastered.”

2.1.4 Competence Mapping:

“Competency mapping is a process of identifying key competencies for organization, the jobs and functions within it”.

“Competency mapping is a process to identify and describe competencies that are most crucial to success in a work situation”.

3. SCOPE OF STUDY

This study is based on pilot survey, which helps researcher for the further study in his Doctoral research.

4. RESEARCH METHODOLOGY

4.1 Research design:Descriptive method

4.2 Objectives of the Study

- 1) To find out and study existing practices of competency mapping and competency development in select manufacturing and service industries in Pune.
- 2) To identify out of Competency Mapping and Competency Development which one is mostly practiced in Manufacturing and service industry.
- 3) To analyze which practice is mostly carried the organization, competency mapping or competency development.

4.3 Sampling Technique

SAMPLING PLAN:-

- i) Sample Method : Non Probability Convenience Sampling
- ii) Sample Size : 54 managerial Personnel from TATA Motors, TCS, Cummins India, Infosys and TATA Technologies. Out of 54 respondents 32 from Service Industries and 22 from Manufacturing Industries.

4.4 Data Collection Method

Data are facts, figures and other relevant material, which are either past or present, serving as basis for the study & analysis. Data constitutes the subject matter of analysis the relevance; adequacy and reliability of data determine the quality of study. The data are collected through Primary data and Secondary data.

Primary Data

It is the information collected during the course of experimentation during experimental research. It can be obtain through the observation or through direct communication with the person associated with selected subject, by performing survey or descriptive research. Primary data which is collected fresh and for the first time it is also called basic data or original data. There are several methods of collecting primary data.

- Observation method
- Interview method and
- Questionnaire Method

Researcher uses the Structured Questionnaire as a tool for collecting the Primary Data.

Questionnaire Formation- The structured questionnaire was formed according the topic of this paper. Total 3 questions were taken for analysis. All the questions are closed ended questions.

Secondary data

Secondary data measures data that is already available i.e. they refer to data which have already collected and analyzed by someone else.

When the researcher utilizes secondary data, then he has to look into various sources from where he can obtain them.

The secondary data collection methods used for this work are:-

- Journals
- Proceedings
- Articles

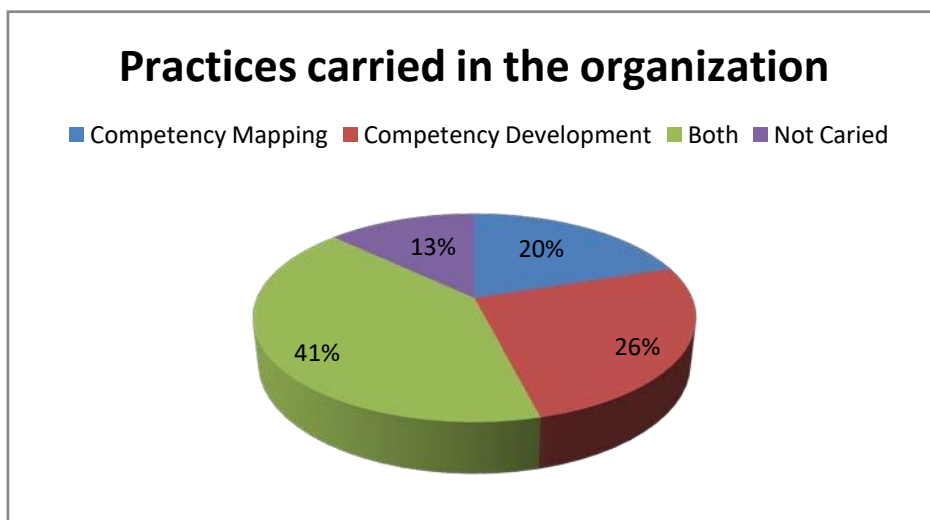
5. LIMITATIONS

- The sample was restricted to the fifty four respondents.
- The organizations which are selected are only five.
- Eight respondents skip two questions from questionnaire.

6. DATA ANALYSIS AND INTERPRITATION

Q.1. Following practice is/are carried in our organization related to competency.

Sr. No.	Options	Respondents	Percentage
1	Competency Mapping	11	20
2	Competency Development	14	26
3	Both	22	41
4	Not Caried	7	13
		54	100

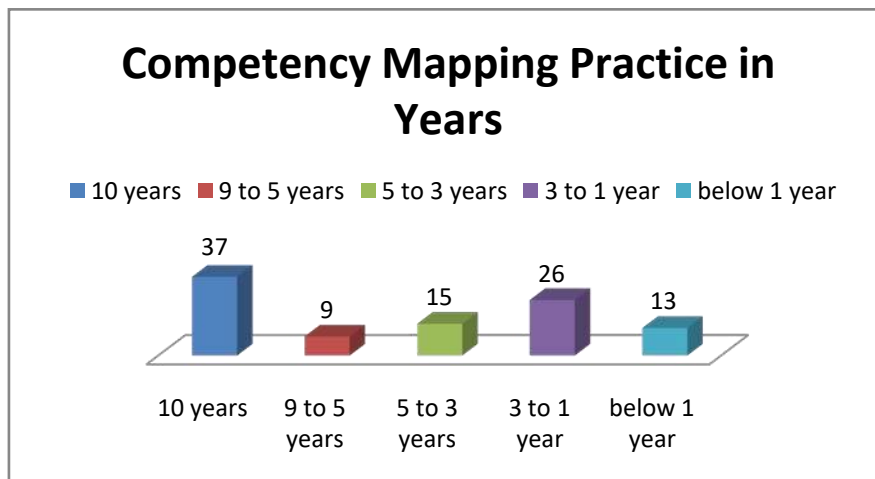


41% respondents said that both Competency Mapping and Competency Development practices are carried in their organization. Only Competency Development is carried in 26% organizations and Competency Mapping in 20% organization. Where in 13% organizations not a single practice is carried.

Q.2 Competency mapping practice is done for last

Sr. No.	Options	Respondents	Percentage
1	10 years	17	37
2	9 to 5 years	4	9
3	5 to 3 years	7	15
4	3 to 1 year	12	26
5	below 1 year	6	13
		46*	100

- Eight (8) respondents are not given their opinion.

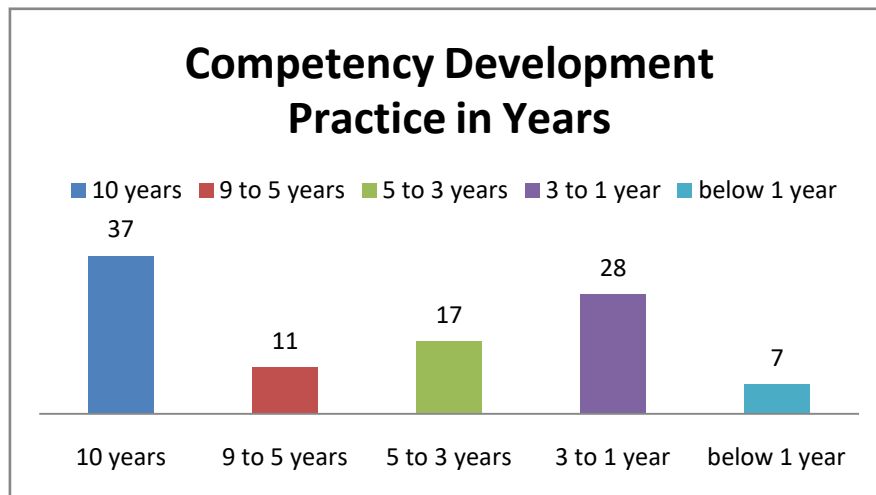


The organizations having 10 years Competency Mapping practice are of 37%, between 9 to 5 years are 9%, between 5 to 3 years are 15%, between 3 to 1 years are 26% and below 1 year are 13%.

Q. 3 Competency development practice is done for last

Sr. No.	Options	Respondents	Percentage
1	10 years	17	37
2	9 to 5 years	5	11
3	5 to 3 years	8	17
4	3 to 1 year	13	28
5	below 1 year	3	7
		46	100

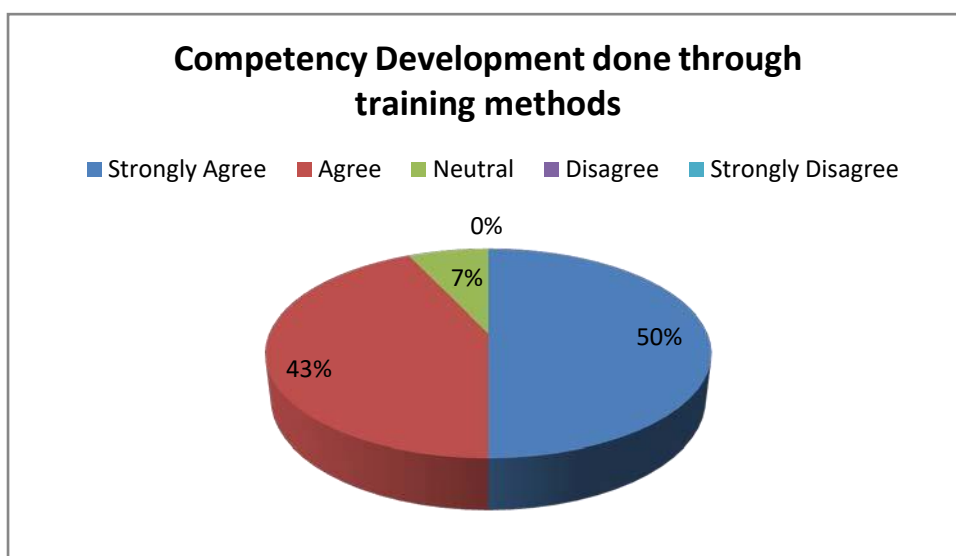
- Eight (8) respondents are not given their opinion.



The organizations having 10 years of Competency Development practice are of 37%, between 9 to 5 years are 11%, between 5 to 3 years are 17%, between 3 to 1 years are 28% and below 1 year are 7%.

Q.3 Competency development is done through various training methods

Sr. No.	Options	Respondents	Percentage
1	Strongly Agree	27	50
2	Agree	23	43
3	Neutral	4	7
4	Disagree	0	0
5	Strongly Disagree	0	0
		54	100



50% Respondents said that they strongly agree that the competency Development is done through various training methods, where 43% agreed upon it and 7% are Neutral.

7. FINDINGS

1. There are 13% organizations those are not conduct any practice of Competency Mapping and/or Competency Development.
2. The organizations those practicing Competency Mapping between 9 to 10 years are 46%. Also there are organization which are practicing Competency Mapping between 3 to 1 year and 5 to 3 years are 26% and 15% respectively.
3. The organizations those practicing Competency Development between 9 to 10 years are 48%. Also there are organization which are practicing Competency Development between 3 to 1 year and 5 to 3 years are 28% and 17% respectively. Below 1 year are very less i.e. 7%.
4. Competency Development is done though various training methods.
5. It is found that Competency Development is mostly practiced in the organizations.

8. CONCLUSION

Competency mapping is useful for managers in identifying performance level, performance standards, good communication, improving relationship between employer and employee and reduce the career related issues. Thus Competency Mapping and Competency Development are essential practices and new approach towards globalization.

9. FURTHER RESEARCH:

Required to gather more data from more respondents and from more manufacturing and service industries.

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**A STUDY OF CALL MANAGEMENT PROCESS WITH
ASSESSMENT OF CALL QUALITY AND CALL EFFECTIVENESS
IN PHARMACEUTICAL SELLING**

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1. ABSTRACT:-

The pharmaceutical industry is one of the highly organized sectors in India. This industry plays an important role in promoting and sustaining development in the field of global medicine. fintech at bottom of pyramid Due to the presence of low-cost manufacturing facilities, qualified and skilled manpower, the industry is set to scale new heights in the fields of production, development, manufacturing, and research.

In terms of the global market, India holds a modest 1-2% share, but it has been growing at approximately 10% per year. In DIGITAL PAYMENT: THE CANVAS India gained its foothold on the global scene with its innovatively engineered generic drugs and active pharmaceutical ingredients (API), and now it is seeking to become a major player in the outsourced clinical research as well as contract manufacturing and research. As it expands its core business, the industry is being forced to adapt its business model to recent changes in the operating environment. The Indian pharmaceutical industry tops the chart amongst India's science-based industries with wide ranging capabilities in the complex field of drug manufacture and technology. A highly organized sector, the Indian pharmaceuticals market is expected to expand at a CAGR of 23.9 per cent to reach US\$355 billion by 2020. It ranks very high amongst all the third world countries, in terms of technology, quality and the vast range of medicines that are manufactured. It ranges from simple headache pills to sophisticated antibiotics and complex cardiac compounds; almost every type of medicine is now made in the Indian pharmaceutical industry. The Indian pharmaceutical sector has expanded phenomenally in the last two decades with more than 20,000 registered units. The pharmaceutical market has severe price competition and government price control. The Pharmaceutical industry in India meets around 70% of the country's demand for bulk drugs, drug intermediates, pharmaceutical formulations, chemicals, tablets, capsules, orals, and injectables. There are approximately 250 large units and about 5000 Units, which form the core of the pharmaceutical industry in India (including 5

Overview of Indian Pharmaceutical Industry: -

Medicines contribute enormously to the health of the nation. The discovery, development and effective use of drugs have improved many people's quality of life, reduced the need for surgical intervention and the length of time spent in the hospital and saved many lives. Over the years pharmacy has grown in the form of pharmaceuticals sciences through research and development processes. It is related to product as well as services. The various drugs discovered and developed are its products and the healthcare it provides comes under the category of services. Pharmacy involves all the stages that are associated with the drugs, i.e. discovery, development, action, safety, formulation, use, quality control, packaging, storage, marketing etc. The Indian pharmaceutical industry is a successful, high-technology-based industry that has witnessed consistent growth over the past three decades. Indian Pharmaceutical Industry has an important role in promoting public health. The origin of the Indian pharmaceutical Industry may be traced to the establishment of the Bengal Chemicals and Pharmaceutical works started in Calcutta in 1930, which exist today as one of government-owned drug manufacturer. During those times, most of the drugs in India were imported by multinationals either in fully formulated or bulk form. The government started to encourage the growth of drug manufacturing by Indian companies in the early 1960s and with the patent Act in 1970, enabled the Industry to become what it is today. This patent act removed composition patents from food and drugs and though it kept process patents, these were shortened to a period of five to seven years. The lack of patent protection made the Indian market undesirable to the multinational companies that had dominated the market, and while they streamed out, Indian companies started to take their places. They carved a niche in both the Indian and world markets with their expertise in reverse engineering new processes for manufacturing drugs at low costs. Although some of the larger companies have taken baby steps towards drugs innovation, the industry as a whole has been following this business model.

Sales Effectiveness: -

Attempts to answer the question of what makes a good sales person have a 70-year history of empirical research. Despite the volume of research about the issue, questions remain unanswered with respect to the predictors of sales performance, which dimensions should be measured, and how those dimensions should be measured. Sales

managers have attempted to understand and explain predictors of sales performance. Studies about sales performance yielded inconsistent results with respect to such forecasts. These studies have also yielded inconsistent results with respect to the strength of the relationship between sales performance and performance predictors.

The significance of the Study: -

In the era of intense competition companies are looking for ways to increase the productivity of their sales and marketing divisions. The pharmaceutical industry is currently undergoing a number of key changes brought about both by developments within the industry relating to new technologies increased competition and continuous change in the promotional activities. As a result of the changing dynamics of the pharmaceutical industry and changing needs of the physician, increasing sales force ROI(Return on investments)will be a key driver of success in the pharmaceutical industry the key influences in the sales force ROI can be broken down into four key areas,

1. Organization of the sales force.
2. Management of the sales force
3. Application of technology
4. Collaboration with external partners.

Pharmaceutical companies are required to continuously optimize their sales force resources and effectiveness as they tighten their focus on profitability as well as revenue growth. The dearth of new products, difficulty in selling high-volume brands lack potential blockbuster molecules, increasing the cost of the sales force and promotion has changed the present pharmaceutical selling scenario.

Companies need to refocus on real sales force effectiveness and analyze this to ensure that they are delivering the right messages to the right target audiences, at the right time, with the right influencing behaviors. Only by doing this, will real returns be possible from the sales force without wasting resources and making optimum use of the available resources. Companies formulate their promotional strategies according to the therapeutic area, disease segment, brand, market dynamics, product lifecycle, etc. they cater to. The promotional strategy would point out the key measures for assessing the sales force productivity in terms of efficiency and effectiveness.

Pharmaceutical marketing strategies vary from company to company, according to government rules the types of doctors who prescribe different medicine, or the level of

data available. Deeper insight into the physician's behavior can also give an organization a constant competitive advantage, Pharma companies largely depend on the sales force to communicate with and promote their products to their costumes. Need to focus on both effectiveness and efficiency, to ensure they are delivering the right messages, to the right target audiences, at the right time, with the right frequency, and right influence on the prescribing decision.

2. Review of Literature:

Based on the importance of understanding the predictors for sales organization effectiveness in the pharmaceutical industry, the literature review for the present study examined existing empirical research about the influence of and outcome-based management control systems on sales force performance and sales organization effectiveness in sales organizations within the pharmaceutical industry. Considering the importance of the sales force to pharmaceutical companies' profitability, the lack of research on sales management control appears to be an area to be further explored.

Literature review focused on the following terms: personal selling, personal sales management, sales management, sales performance, salesperson, selling skills, sales training, management control, sales management control, outcome-based control, behavior-based control, sales force control systems, sales force effectiveness, pharmaceutical sales, pharmaceutical sales force, biotech sales, sales territory, sales territory design, territory alignment, sales alignment, selling skills, selling behaviors, and adaptive selling. Researchers have shown a high level of interest in the relationship between management control and sales and marketing effectiveness (Baldauf et al., 2005).

A research paper deals with the intent of management control in an organization is to direct and influence the attitudes and behaviors of employees to achieve organizational objectives. Sales management control considers the extent of sales manager activities such as supervising, guiding, assessing, and compensating salespeople (Anderson & Oliver, 1987). Another research paper also indicated that sales territory design had a positive relationship with behavior-based and outcome-based performance. In addition, the results indicated that sales management control is related to both sales territory design and behavior-based performance. Moreover, sales territory design has a similar effect on both behavior-based and outcome-based performance. (Babakus et al, 1996) Researchers synthesized various initiatives in research about sales management control

in order to guide further research on the topic and found 22 articles that examined management control relationships. According to them, much of the empirical research was centered on sales organizations' examination of the management control relationships within the sales area and employment of sales executives.

Sales Call Management Process:

Control mechanisms are central to the efficient and effective functioning of organizations. Controlling is recognized as one of the major activities of managers and is generally viewed as an integral link for connecting other essential managerial functions such as planning, organizing, and leading. According to Barker and Jennings, the control process ensures that actual and planned activities are congruent with each other. The control process includes monitoring organized efforts, comparing progress with planned objectives, and making the necessary decisions to ensure success.

Potential benefits of effective control processes, in terms of performance enhancement, are effectively designed and controls implemented. (Barker & Jennings, 1999)

According to Tannenbaum, management control consists of directing the daily sales activities of the salesperson. Several other researchers have identified planning as a key element of management control. Reeves and Woodard argued the proper domains of management control include direction of daily activities, evaluation of sales results, and analyzing goal versus actual performance to identify and correct any deviations. In addition, the compensation plan is a common method used to control and motivate salespeople (Churchill, Ford, & Walker, Cooke, 1999).

Management control consists of directing the daily sales activities of the salesperson. Several other researchers have identified planning as a key element of management control. Reeves and Woodard argued the proper domains of management control include direction of daily activities, evaluation of sales results, and analyzing goal versus actual performance to identify and correct any deviations. In addition, the compensation plan is a common method used to control and motivate salespeople.

3. Research Methodology:

Objectives of the Study:

1. To study in detail the call management systems in pharmaceutical selling.
2. To make an assessment of call quality and measure call effectiveness in pharmaceutical selling.

3. To find out the impact of call quality and call effectiveness on the sales achievement.

The hypothesis of the Study: -

- H1: Increase in the frequency of calls results in an increase in sales.
- H2: Superior quality of calls has a direct impact on sales.
- H3: Scientific promotion has a positive impact on sales.
- H4: Call coverage, work experience, call frequency, use of technology, has an impact on the ROI. (return on investments) of companies

Sampling Method and Size: -

A non-probability purposive sampling plan was designed. A total number of 700 respondents including 300 Sales executives 250 Sales Managers and 150 Medical practitioners were interviewed using three questionnaires out of the total population of Pharma executives and Medical practitioners in Pune district. A survey was conducted with the help of research tool - questionnaire. The questionnaire was administered to Sales executives, Sales managers, and Medical practitioners to get their responses on various aspects of the research study. The sample size for the study was 700 respondents – 300 sales executives 250 sales managers and 150 medical practitioners. The sample size is a representative of the pharmaceutical companies operating in Pune district and general medical practitioners.

Tools for Data Collection:

Survey Method

The population of interest was large and was accessible and were educated enough to respond to the instrument of data collection, therefore it was evident that 'survey method' was found to be the most appropriate method for this study.

Questionnaire: -

Based on the hypothesis and objectives three questionnaire were designed as an instrument for data collection..A seven-point Likert scale was used.

The three questionnaires included various questions on the aspects of

1. Territory coverage
2. Use of scientific communication
3. Number of sales call
4. Frequency of sales call

5. Use of promotional tools in sales promotion
6. Use of technology
7. Practical demonstration related to the dosages and compliance of products
8. Communication abilities
9. Efficacy and potency of drugs
10. Impact on prescriptions.

Secondary Data:

An extensive review of the literature including scholarly and peer-reviewed journals, Reference books, Newspapers, opinions of researchers in pharmaceutical domain sales executives sales managers and medical practitioners form the bulk of the secondary data.

Primary Data:

The primary data is collected through three structured questionnaires for sales executives, sales managers, and medical practitioners. The questionnaires had various aspects of Sales call, use of scientific information, use of technology, the frequency of sales calls, sales territory coverage and sales of the territory related to the sales executives.

The primary data is collected through three structured questionnaires for sales executives, sales managers and medical practitioners.

1. The questionnaire for sales executives had various aspects on Sales call, use of scientific information during the sales call, appropriate use of technology, frequency of sales calls, sales territory coverage and sales of the territory related to the sales aspects of the pharmaceutical sales executives.
2. The questionnaire for sales managers included aspects related to monitoring of sales territories sales calls and also assessing the impact of various factors on the final outcome of the sales call.
3. The third questionnaire meant for medical practitioners included various aspects which impact the prescriptions given by the medical practitioners and various factors like the contents of the sales call, the practical demonstration of products, and the packaging and availability of the products were included.

Pilot Study: -

Based on the insights through the literature review and the discussions with the expert's researcher drafted three questionnaires for the pilot study. 25 Executives, 18 Sales Mangers and 20 Medical practitioners were interviewed during the pilot study. The

pilot study revealed some more valuable inputs and suggestions from the respondents. Based on these observations and experiences in the pilot study, the researcher has made necessary changes in the three questionnaires 7 Point Likert scale is used throughout the questionnaires with open-ended questions.

The options of the questions were measured on either on the nominal or ordinal scale. Respondents were requested to rate their opinions and rating were converted to composite score to arrive at factors of Sales Effectiveness. The reliability was verified by using “Cronbach alpha” which was found to be greater than 0.7, indicating the reliability of the tool used. The outcome of the pilot study; lead the researcher to finalize the questionnaire. This final questionnaire was then administered to the respondents.

4. Data Analysis and Interpretation

After collecting the primary data, it is necessary to process it and then analyze it as per the proposed research plan. The processing of data implies editing, coding, classification, and tabulation of collected data so that they are amenable to analysis. In other words, to carry out analysis of data, it must be sorted and classified first, and then only actual processing can be done.

Analysis of data involves seeking and establishing relationships amongst the groups of data and calculating certain measures. This organizes data in such a way so as to answer the research question. For the analysis part of this research SPSS 23 and Minitab 17 software were used.

Analysis of questionnaire: -

The researcher has methodically scrutinized and evaluated the primary data in order to identify tendencies and patterns of relationships. Further each questionnaire was analyzed separately to check the hypothesis.

The study findings were grouped, analyzed and presented under following three sections:

Section I:

Deals with the demographic characteristics of the respondents.

Section II:

This section deals with assessment of the call management systems, call quality and measure call effectiveness in pharmaceutical selling

Section III:

Association with demographic variables

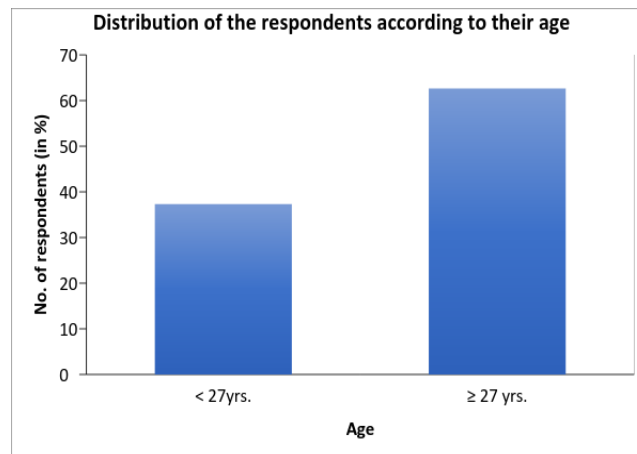
SECTION I-

DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

The objective is to assess the demographic characteristics of the respondents. This data are presented in table 1, 2, 3 4 & 5.

Table 1: Distribution of the respondents according to their age

Age	Frequency	Percentage
< 27yrs.	112	37.33
≥ 27	188	62.67



Explanation:-

We can see from the above table that 37.33% of the respondents were of age less than 27.

A maximum number of respondents (62.67%) belongs to the age group above or equal to 27 years.

Table 2: Distribution of the respondents according to gender

Gender	Frequency	Percentage
Male	282	94.00
Female	18	6.00

Explanation:-

From the above table, it is observed that there are more pharmaceutical representatives (94%) than female executives (6%) among the total respondents.

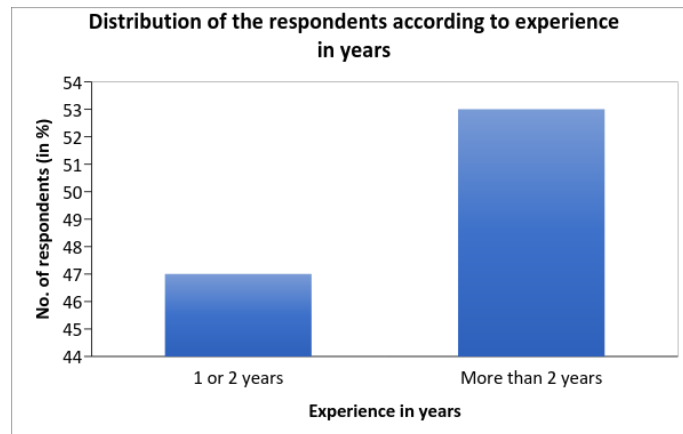
Table 3: Distribution of the respondents according to their sales territory area

Sales Territory	Frequency	Percentage
Pune District	151	50.33
Pune District	149	49.67

Explanation: From the above table it is observed that majority of respondents are from Pune district.

Table 4: Distribution of the respondents according to experience in years

Experience	Frequency	Percentage
1 or 2 years	141	47
More than 2 years	159	53

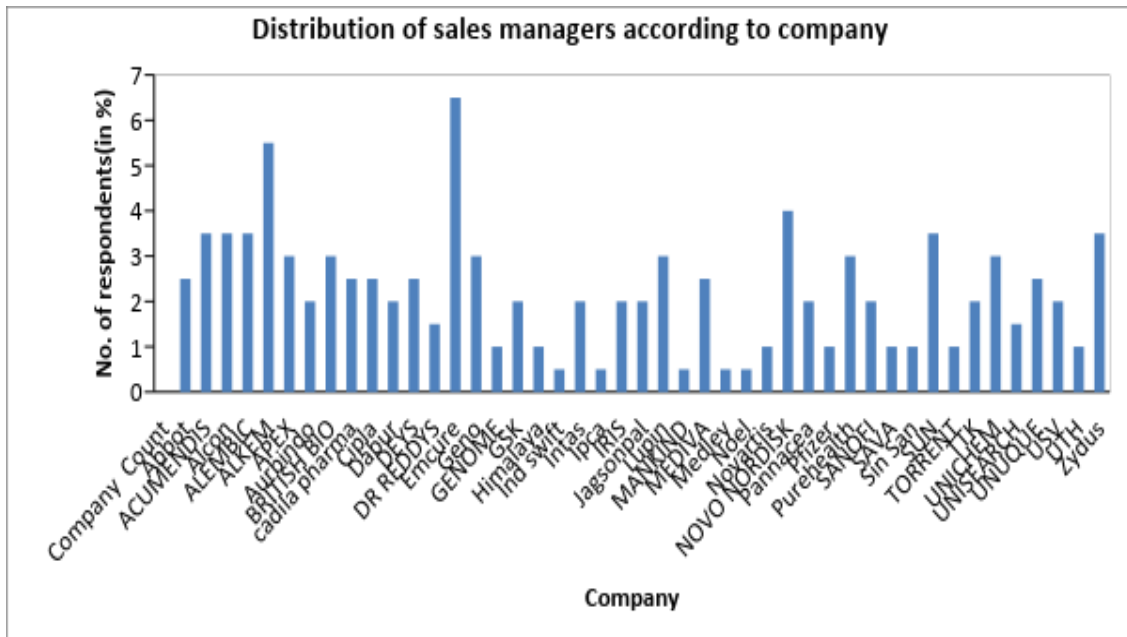


Explanation: From the above table it is observed that 47 % of the respondents have an experience of 1 to 2 years and 53 % have an experience of more than 2 years.



Explanation: -

1. Sales executives are representing major Indian and multinational companies.
2. The companies also include top 10 Indian Pharmaceutical companies.
3. The companies represent a sample of the Indian Pharmaceutical companies
4. The companies are having structured field presence in various markets



Explanation: -

1. Sales Managers are representing major Indian Pharmaceutical companies.
2. The companies also include top 10 Indian Pharmaceutical companies.
3. The companies represent a sample of the Indian Pharmaceutical companies
4. The companies are having structured field presence in various markets
5. The field force in the selected territory Pune district helped the researcher to understand Various aspects related to sales during the research.

SECTION II-

DEALS WITH CALL MANAGEMENT SYSTEMS, CALL QUALITY AND CALL EFFECTIVENESS IN PHARMACEUTICAL SELLING

The objective is to study in detail the call management systems in pharmaceutical selling and assess the call quality and measure call effectiveness in pharmaceutical selling.

The sales territory assigned to me is as per my expectations	1 SD	2	3	4	5	6	7 SA
N	48	54	5	9	32	71	81
%	16	18	1.67	3	10.67	23.67	27

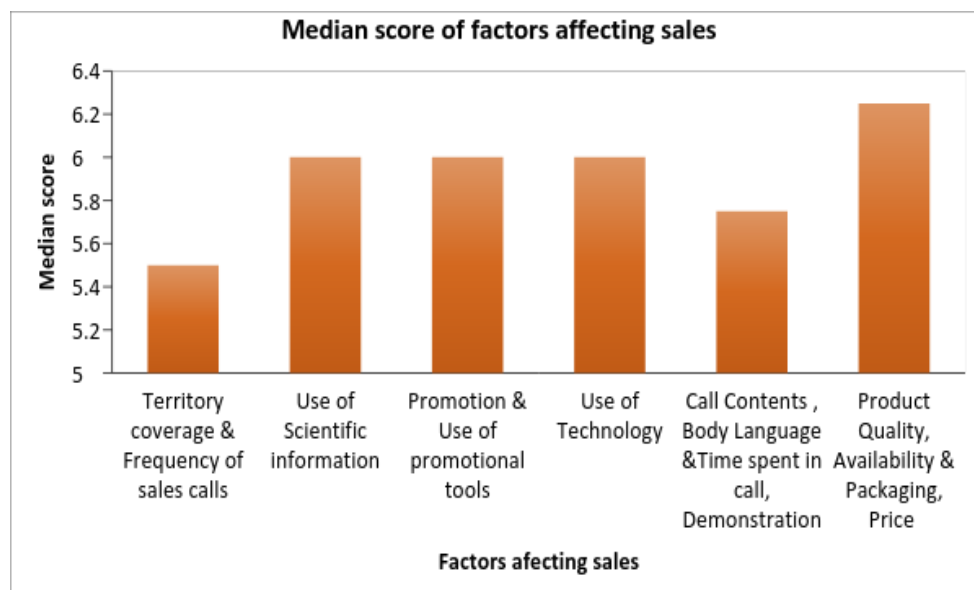
Factor wise analysis

Factors	Mean	Median	SD	p-value
F1: Territory coverage & Frequency of sales calls	5.07	5.50	1.56	H = 66.90 DF = 5 P = 0.000**
F2: Use of Scientific information	5.59	6.00	1.40	
F3: Promotion & Use of promotional tools	5.62	6.00	1.20	
F4: Use of Technology	5.39	6.00	1.68	
F5: Call Contents, Body Language & Time spent in call, Demonstration	5.56	5.75	1.24	
F6: Product Quality, Availability & Packaging, Price	5.87	6.25	1.38	

Table: Descriptive statistics of scores of factors affecting sales

KW: Kruskal-Wallis Test, H: Test statistic value, DF: Degrees of freedom

** : Highly significant difference



Explanation: Median score of Territory coverage & Frequency of sales calls is 5.5 with standard deviation 1.56 .

Median score of Use of Scientific information is 6 with standard deviation 1.40.

Median score of Promotion & Use of promotional tools is 6 with standard deviation 1.20.

Median score of Use of Technology is 6 with standard deviation 1.68.

Median score of Call Contents, Body Language & Time spent in call, Demonstration is 5.75 with standard deviation 1.24.

Median score of Product Quality, Availability & Packaging, Price is 6.25 with standard deviation 1.38.

The Kruskal-Wallis statistic for the data is **66.90** and the p-value is **0.000**. Because the p-value is very very small (less than the common -level of 0.05), the test is highly significant. Thus, we can conclude that the scores of all factors are not same.

Most affecting factor for the sales is F6 because F6 has highest rating median score (6.25) while least affecting factor is F1 as it has least median rating score (5.50)

Findings:

Following are the findings of this research study,

1. It is observed that the frequency of Calls is a very important factor for sales executives to achieve the targets assigned to a pharmaceutical sales executive in a territory. Certain parameters were noted in the frequency of calls such as regularity, the frequency of repeat calls and frequency specialty of prescribers. It was found that (78 %)of sales executives from the respondents agreed with hypothesis.
2. Effective scientific communication is an important factor affecting the sale. Similarly, with respect to the quality of scientific inputs, thus (59.33 %) respondents strongly agreed that the better quality and Usage of relevant scientific inputs has a strong impact on the increase in sales.
3. Work experience of the sales executive plays a pivotal role in deciding the impact of the sales call. Work experience includes the number of years the sales executive is with the company. It was found that (84%) of the respondents among the sales executives agree with hypotheses. Thus out of collected data on (300) randomly selected sales executives and find that(241) sales executives agreed with the hypotheses.

Taking into consideration the above factors it was observed that in case of use of technology during the sales call has an impact on the Rx and sale and better outcome i.e. the prescriptions. Certain parameters were noted in the frequency of calls such as regularity, the frequency of repeat calls and the frequency of calls in better sales performance done with the sales managers from the company. Here it was observed that the frequency of the repeat calls was strongly observed as the important factor in making a successful call resulting in a better outcome in terms prescriptions and better sales.

- a. The promotional tools used by the sales executive
 - b. The gifts and freebies used by sales executives.
 - c. A practical demonstration related to usage of a product.
 - d. The communication abilities of the sales executives.
 - e. The presence of higher officials in your sales team.
 - f. The providing extra services and information related to the product.
 - g. The efficacy and the potency of a drug
 - h. The promises of rewards to a prescriber.
4. Call coverage, work experience, call frequency, use of technology, has an impact on the ROI. (return on investments) of companies(84%) respondents agreed. It was also found that (37.33%) of the respondents were of age less than 27 years. Maximum number of respondents (62.67%) belongs to the age group above or equal to 27 years.
- It was observed that there were more male pharmaceutical representatives (94%) than female executives (6%) who participated in the study.
5. 4.The Sales territory and assigned to a pharmaceutical sales executive in terms of geographical area covered and number of prescribers has an impact on the sales outcome of a sales executive.
 6. 5.The appropriate use of Scientific communication has an impact on the sales in an assigned territory. In case of pharmaceutical sales, scientific knowledge is an important factor thus the scientific promotion with respect to communication in scientific language and the quality of scientific inputs affects the number of prescriptions.
 7. The number of sales calls made has an impact on the sales in a assigned sales territory.

8. The number of repeat calls (Frequency) has an impact on the sales of a particular territory assigned to the pharmaceutical sales executive.
9. The dressing style grooming and personality of a sales executive has an impact on the sales outcome in an assigned territory of the pharmaceutical sales executive.
10. The promotional tools in terms of Gifts and freebies also have an impact on the sales outcome in an assigned territory to the pharmaceutical sales executive.
11. The use of latest technology during the sales call has an impact on prescriptions and sales in an assigned territory for the pharmaceutical sales executive.
12. The quality of scientific communication presented during the sales call (detailing) has an impact on the sales outcome ie. prescriptions in a territory.
13. Call content, Body language and and time spent in call has an impact on the sales outcome of the sales executives.
14. Product quality, Product availability, and Packaging, Price has an impact on the final outcome of the efforts of the sales executives ie. Prescriptions and the sales of the territory.

Hypothesis Validation:

Sales Executives: -

With the sample size of (300)respondents, four hypothesis were proved.

H1:- A proportion test was performed to determine whether or not the proportion of the respondents agreeing to the hypothesis was greater than the required proportion of 0. and also, in addition, a 95% confidence bound was constructed to determine the lower bound for the proportion of agreed respondents.

It was observed that the frequency of Calls is a very important factor for sales executives to achieve the targets assigned to a pharmaceutical sales executive in a

The statistical tests proved that the P values 0.000 suggested that the data are consistent with the value sample ps is less than 0.60.

Thus as the P value is less than 0.05. Hence it proves that increase in the frequency of calls increases the sales.

X	N	Sample p	95% Lower Bound	P-Value
235	300	0.783	0.741	0.000**

****:** Highly significant proportion difference, Test used: One Sample Proportion Test

H2:- Superior quality of calls has a distinct impact on sales.

The statistical tests proved that the P value 0.000 suggested that the data are consistent with the value of sample p is less than 0.60. Thus, as the P value is less than 0.05. The test proves that superior quality of calls has a Distinct impact on sales.

X	N	Sample p	95% Lower Bound	P-Value
254	300	0.847	0.808	0.000**

****:** Highly significant proportion difference, Test used: One Sample Proportion Test

H3:- Scientific promotion has a positive impact on sales.

The statistical tests proved that the P values 0.000 suggested that the data are consistent with the value sample p is less than 0.60.

Thus, as the P value is less than 0.05. Hence the hypothesis is accepted it proves that Scientific promotion has a positive impact on sales

In case of pharmaceutical sales, scientific knowledge is an important factor thus the scientific promotion with respect to communication in scientific language and the quality of scientific inputs affects the number of prescriptions.

X	N	Sample p	95% Lower Bound	P-Value
261	300	0.870	0.834	0.000**

H4:- Call coverage, work experience, call frequency, use of technology, has an impact on the ROI. (return on investments) of companies

The statistical tests proved that the P values 0.000 suggested that the data are consistent with the value sample p is less than 0.60.

Thus, as the P value is less than 0.05. Hence the hypothesis is accepted it proves that Call coverage, work experience, call frequency, use of technology, has an impact on the ROI. (return on investments) of companies.

X	N	Sample p	95% Lower Bound	P-Value
241	300	0.803	0.762	0.000**

****:** Highly significant proportion difference, Test used: One Sample Proportion Test

SUB-HYPOTHESIS OF THE STUDY

SALES EXECUTIVES

Sub Hypotheses	x	N	Sample p	95% Lower Bound	P-Value
H ₁ : Territory coverage & Frequency of sales calls has impact on sales	235	300	0.783	0.740	0.000**
H ₂ : Use of Scientific information has impact on sales	261	300	0.870	0.834	0.000**
H ₃ : Promotion & Use of promotional tools has impact on sales	268	300	0.893	0.859	0.000**
H ₄ : Use of Technology has impact on sales	253	300	0.843	0.805	0.000**
H ₅ : Call Contents , Body Language & Time spent in call, Demonstration has impact on sales	262	300	0.873	0.837	0.000**
H ₆ : Product Quality, Availability & Packaging, Price has impact on sales	271	300	0.903	0.870	0.000**

****:** Highly significant proportion difference, Test used: One Sample Proportion Test

SALES MANAGERS

H1. Increase in the-the frequency of calls results in increase in sales

A proportion test was performed to determine whether the proportion of the respondents agreeing to the hypothesis was greater than the required proportion of 0. And also, in addition, a 95% confidence bound was constructed to determine the lower bound for the proportion of agreed respondents.

Thus as the p-value is 0.000 (less than 0.05) the alternate hypothesis Increase in frequency of call results in an increase in sales is accepted. It was observed that the

frequency of Calls is a very important factor for sales executives to achieve the targets assigned to a pharmaceutical sales executive in a particular territory.

X	N	Sample p	95% Lower Bound	P-Value
143	200	0.715	0.658	0.000**

****:** Highly significant proportion difference, Test used: One Sample Proportion Test

H2: Superior quality of calls has a direct impact on sales

A proportion test was performed to determine whether the proportion of the respondents agreeing to the hypothesis was greater than the required proportion of 0. And also, in addition, a 95% confidence bound was constructed to determine the lower bound for the proportion of agreed respondents.

Thus as the p-value is 0.000 (less than 0.05) the alternate hypothesis superior quality of calls has a direct impact on sales is accepted.

X	N	Sample p	95% Lower Bound	P-Value
172	200	0.860	0.813	0.000**

****:** Highly significant proportion difference, Test used: One Sample Proportion Test

H3: Scientific promotion has a positive impact on sales. It was found that 163 respondents ie. Sales Managers agreed with the hypothesis.

The statistical tests proved that the P values 0.000 suggested that the data are consistent with the value p is less than 0.60.

Thus, as the P value is less than 0.05. Hence it proves that Scientific promotion has a positive impact on sales.

x	N	Sample p	95% Lower Bound	P-Value
163	200	0.870	0.764	0.000**

****:** Highly significant proportion difference, Test used: One Sample Proportion Test

H4: Call coverage, work experience, call frequency, use of technology, has an impact on the ROI. ((return on investments) of companies).

The researcher has concluded after the data analysis that the Hypothesis Call coverage, work experience, call frequency, use of technology, has an impact on the ROI. (return on investments) of companies is accepted.

A proportion test was performed to determine whether or not the proportion of the respondents agreeing to the hypothesis was greater than the required proportion of 0. And also, in addition, a 95% confidence bound was constructed to determine the lower bound for the proportion of agreed respondents.

Thus as the p-value is 0.000 (less than 0.05) the alternate hypothesis Call coverage, work experience, call frequency, use of technology, has an impact on the ROI. (return on investments) of companies.

x	N	Sample p	95% Lower Bound	P-Value
146	200	0.730	0.674	0.000**

SALES MANAGERS

Sub Hypotheses	x	N	Sample p	95% Lower Bound	P-Value
H1 Territory coverage & Frequency of sales calls has impact on sales	143	200	0.715	0.658	0.000**
H2 Use of Scientific information has impact on sales	163	200	0.815	0.764	0.000**
H3 Promotion & Use of promotional tools has impact on sales	170	200	0.850	0.802	0.000**
H4 Use of Technology has impact on sales	153	200	0.765	0.710	0.000**
H5 Call Contents , Body Language & Time spent in call, Demonstration has impact on sales	164	200	0.820	0.769	0.000**
H6 Product Quality, Availability & Packaging, Price has impact on sales	175	200	0.875	0.830	0.000**

MEDICAL PRACTITIONERS

H1: Increase in the-the frequency of calls results in increase in sales

The researcher after the data analysis came to the conclusion that the hypothesis will be accepted as a proportion test was performed to determine whether or not the proportion of the respondents agreeing to the hypothesis was greater than the required proportion of 0. And also, in addition, a 95% confidence bound was constructed to determine the lower bound for the proportion of agreed respondents.

Thus as the p-value is 0.000 (less than 0.05) the alternate hypothesis Increase in the-the frequency of calls results in an increase in sales is accepted.

x	N	Sample p	95% Lower Bound	P-Value
109	150	0.727	0.660	0.001**

****:** Highly significant proportion difference, Test used: One Sample Proportion Test

H2: Superior quality of calls has a direct impact on sales

The researcher after the data analysis came to the conclusion that the hypothesis will be accepted as out of a data Thus as the p-value is 0.000 (less than 0.05) the alternate hypothesis Increase Superior quality of calls has a direct impact on sales.

x	N	Sample p	95% Lower Bound	P-Value
119	150	0.793	0.731	0.000**

****:** Highly significant proportion difference, Test used: One Sample Proportion Test

H3: Scientific promotion has a positive impact on sales the researcher after the data analysis came to the conclusion that the hypothesis will be accepted. As the P-value is 0.000 (less than 0.05) the alternate hypothesis scientific promotion has a positive impact on sales.

x	N	Sample p	95% Lower Bound	P-Value
120	150	0.800	0.739	0.000**

****:** Highly significant proportion difference, Test used: One Sample Proportion Test

H4: Call coverage, work experience, call frequency, use of technology, has an impact on the ROI. (return on investments) of companies). The researcher after the data analysis came to the conclusion that the hypothesis is accepted as the P-value is 0.000 (less than 0.05) the alternate hypothesis the proportion of agrees.

x	N	Sample p	95% Lower Bound	P-Value
129	150	0.860	0.805	0.000**

****:** Highly significant proportion difference, Test used: One Sample Proportion Test

Sub Hypotheses	x	N	Sample p	95% Lower Bound	P-Value
H1: Territory coverage & Frequency of sales calls has impact on sales	109	150	0.727	0.660	0.000**
H2: Use of Scientific information & Innovations in drugs & drug delivery has impact on sales	120	150	0.800	0.739	0.000**
H3: Promotion & Use of promotional tools has impact on sales	119	150	0.793	0.731	0.000**
H4: Use of Technology has impact on sales	129	150	0.860	0.805	0.000**
H5: Call Contents , Body Language & Time spent in call, Demonstration has impact on sales	119	150	0.793	0.731	0.000**
H6: Sponsorships for academic activities has impact on sales	124	150	0.827	0.768	0.000**
H7: Product Quality, Availability & Packaging, Price has impact on sales	123	150	0.820	0.760	0.000**

Recommendations & Suggestions:

The finding of the present research endeavor will be of interest to pharmaceutical companies, academicians, managers of pharmaceutical companies, distribution channels, doctors, and customers.

1. The present study is a humble effort to understand the call management process ensuring that the field personnel is better equipped to master the trait of sales call effectiveness which is the backbone of the outcome of all the activities performed to get the final result. The prescription and the sale Pharmaceutical executives need to be better equipped with the scientific knowledge the key driver in impacting the final outcome of the entire gamut of activities focused towards the sole aim of achieving the final outcome of better sales performance.
2. Companies need to relook in the training aspect as nowadays focus is shifted to various other methods to lure and attract the prescriber rather than using the scientific knowledge about the drug and drug delivery systems resulting in better patient compliance. Adequate scientific information related to the mechanism of action efficacy indications and contraindications of a particular molecule or drug as to enable them to handle all sort of queries in the day to day field operations wherein they interact with various target audiences like Medical practitioners and the pharmacists.
3. With the increasing competition newer method of communicating to the consumer have evolved, reaching to the customer in different ways using the latest technology has to be upgraded by companies as a result better dissemination of scientific information would lead to better understanding of newer molecules being introduced with focus on newer drug delivery systems for enhanced efficacy and compliance thus benefitting the end user the consumer of the medication.
4. When we take a look at the call management systems and sales territory design it is suggested that the companies need to relook into the sales call management systems in a very practical and methodical manner so as to ensure better coverage across areas and specialties being focused for sales promotion this will not only improve the final outcome but also ensure better co ordination between sales executives and sales managers who are an integral part of the entire sales call management system.
5. The sales call content, body language and the amount of time spent in the call and the practical demonstration of the usage of the pharmaceutical products during the sales call also has a positive impact on the prescriptions resulting in better awareness of usage of products. This part of creating awareness among the patients and the stakeholders; the medical fraternity has to be taken into consideration by the pharmaceutical companies for creating awareness about the life-saving drugs and molecules.

Limitation of research and further Scope of the Study:

The limitation with respect to this study is that the geographical scope of the study is limited to Pune District.

Further Scope:

Further studies in the pharmaceutical sales management and effectiveness can be carried out with a larger geographical area with respect to the Indian Pharmaceutical industry and various aspects related to the sales effectiveness can be further explored in a broader geographical area.

Sales management and sales management and effectiveness are dynamic with regards to various factors affecting them, further studies can be undertaken related to the sales effectiveness.

The behavioral aspect of of sales executives and managers concerned with various activities, skills, and competencies, needed to perform the responsibility of the sales job also can be further explored.

The conclusion of the Study:

The study with the backbone of the pharmaceutical sales the sales executives and sales managers aimed at finding out the real deciding factors for the outcome of the pharmaceutical sales effort. The true outcome of all the efforts of sales promotional activities is the increase in the number of prescription for a brand resulting in an increase in sales as the immediate outcome and brand building a brand as a result building of the company image in the long run. Thus, it is concluded that there are a plethora of factors that impact the sales outcome and with all the focus on sales promotion still, the appropriate use of scientific information and use of latest technology has a definite impact on the sales outcome.

Future studies can extend their scope of the study, it would be very interesting to conduct another study in some other geographic location with different demographics, which will give more integrated result to the topic and better utility to various facets of sales management in pharmaceutical selling.

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EFFECT OF NEW APPROACHES TO GLOBALIZATION: NEW ERA FOR AGRO-TOURISM 'INDIA HOST-&-GUEST'

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Dr Radha J.
Asst Professor, Neville Wadia Institute of Management Studies and Research, Pune

ABSTRACT:

With the impact of globalization in the twentieth century an extension and diffusion of mass tourism are produced. It is an intensive and localized tourist modality that brings important social and environmental effects. Agro-tourism is a part of contemporary tourism and presents an essential factor of rural tourism in a rural environment, including all activities that occur with respect to tourism. It is based on the competitive advantage of the area, tradition, specificity of agriculture and people. Agro-tourism has received increasing attention in academic literature as it has been widely promoted both in developed and developing countries. Based upon an empirical study in a rural village in Pune, India, this study examines the impacts of agro-tourism on an ethnic community and discusses the challenges faced by residents who are attempting to improve their livelihoods through tourism.

The overall objective of this study is to examine the potentials of agro-tourism, to study the Effect of new approaches to Globalization. And to study the new area for agrotourism in Pune, India.

Both primary and secondary data were used. Key informant interviews, focus group discussions, case studies and direct field observation methods were used as the tools of primary data collection.

In data analysis researcher have discussed about role of India as a host and as guest. In this, researcher has considered Model for study. And considered Pune based 10 units of Agro Tourism. Researcher has analyzed data on the basis of following criteria:

- *Increase in the number of local visitors than in the year 2017-18*
- *No. Of Foreign visitors increased than last five years*
- *Increase in the number of stakeholders*
- *Use of Foreign technology for advance farming*
- *Awareness about Government Policies & schemes*

Based on the data analysis we can conclude that, Impact of new approaches of globalization on Agro-Tourism is on large extend. It brings boom to the Farming sector by giving extra income through Agro-Tourism. Exchange of technology within various

countries gives new scope in this field. We can conclude that Pune Agro-tourism industry is enjoying benefits of globalization by increased foreign visitors as well as increased local visitors.

Though there is very less use of foreign technology which needs to be increased.

Awareness of government policies, subsidies is on satisfactory level (50%). Still

Government should take initiative to increase the awareness.

Keywords: *globalization, approaches, Agro-Tourism, foreign visitors, Israel*

• **Introduction:**

Tourism is one of the industries which have seen a major transformation due to the globalized world. People have started to discover the world due to the free accessibility provided by the countries in order to promote tourism. Tourism is one of the booming sectors in the world.

If a person wants to visit any part of the world he/she can be there with in no time. The countries have progressed in terms of infrastructure, technology, transportation and communication. The policies which allow global trade have enabled businesses to use the natural resources from any part of the world. Trade has also been successful in bringing together different people and cultures. Until the beginning of 21st century, the effect of globalization was not visible to the economies in the world. As globalization gradually impacted the various countries, the impact was seen by the politicians and media as a path to attaining greater wealth and prosperity. Globalization within a decade has been able to transform the political and economic structure of the economies, its implication have still not been seen and understood by most of the people.

Tourism has become a global phenomenon in the last ten years. Due to globalization processes there is significant increase in interest of tourists to get to know different countries, new cultures, local customs and way of life. On the other hand, competition is steadily intensifying between tourist destinations which in order to survive on global tourism market have to constantly create new, innovative and quality tourism products based on autochthony of local resources, tradition and in accordance with the principles of sustainable development. Therefore, the purpose of this work is to show the relationship of globalization and tourism, with reference to which are the positive and negative consequences of globalization processes unfolding in the tourism market and to analyze the development of agro-tourism in Pune, India as a form of tourism that can

offer new and different type of holiday that will be competitive in the global tourism market.

With the impact of globalization in the twentieth century an extension and diffusion of mass tourism are produced. It is an intensive and localized tourist modality that brings important social and environmental effects. As an alternative to this standardized model, other more specialized tourism, based on nature, culture and heritage, are characterized by the variety, flexibility and permeability of their forms. The network formed by the association "Nekazalturismoa-landaturismoa" (Nekatur) can be an alternative tourist modality to mass tourism and, thanks to the potential of globalization, can favor its development.

Even if there is not a clear-cut definition of rural tourism, researchers have found several similar features. A comprehensive definition that uses these characteristics is given by Nagaraju and Chandrashekhara (2014, p. 43) who state that rural tourism represents “any form of tourism that showcases the rural life, art, culture and heritage at rural locations, thereby benefiting the local community economically and socially, as well as enabling interaction between the tourists and the locals for a more enriching tourism experience”

Agro-tourism is a part of contemporary tourism and presents an essential factor of rural tourism in a rural environment, including all activities that occur with respect to tourism. It is based on the competitive advantage of the area, tradition, specificity of agriculture and people. The totality of these elements makes a complete tourist product, which provides the following services to the tourists: accommodation, rest on the farm, also various specific agricultural contents: getting the children acquainted with the farm animals, the presence during agricultural works, food production: bread, wine, brandy, food for winter, collecting medicinal herbs, tea, mushrooms, snails, as well as adventurous contents: riding, driving in horse-drawn carriages, teaching traditional crafts: production of cloth (weaving), crochet, embroidery, production of tools and similar. What is essential for an agricultural destination is its uniqueness and distinctiveness with regard to the competition.

Agro-tourism has received increasing attention in academic literature as it has been widely promoted both in developed and developing countries. Based upon an empirical study in a rural village in Pune, India, this study examines the impacts of agro-tourism on an ethnic community and discusses the challenges faced by residents who are attempting to improve their livelihoods through tourism. A qualitative study of selected

households indicates positive experiences both economically and socio-culturally. Agro-tourism has not only provided a supplementary income and new employment opportunities to the rural community, but has also increased the conservation of the environment and appreciation of minority cultures and rural lifestyle. However, the development of agro-tourism is facing a number of challenges, and government aid is needed to support farming families establishing and operating tourism enterprises.

- **Objectives of the research**

The overall objective of this study is to examine the potentials of agro-tourism, to study the Effect of new approaches to Globalization. And to study the new area for agro-tourism in Pune, India.

1.3.1 Specific Objectives

1. To Identify opportunities for promoting agro-tourism among the farming community.
2. To analyze the current situation of agro-tourism in the farming sector and possible agro-tourism activities to improve their livelihoods.
3. To understand the potentialities of rural tourism in the study area.
4. To make recommendations to promote agro-tourism in the agrarian community.

- **Study Area**

This study was conducted in Pune district. Pune district were selected considering two reasons. Firstly, these districts are among the major tourism destinations in Maharashtra, especially for historical and educational tourism which has close linkages with agro-tourism. Secondly, this district is among the major agricultural production areas in the country and agricultural activities are greatly diversified in these areas. From these districts 10 Agro tourism divisions were selected for case studies considering the potentials for agro-tourism with the initial discussions conducted with relevant officials. Three indicators were used to select the study locations, namely, proximity to tourism attractions, natural, cultural resources and attractiveness, and agricultural resources and farming practices.

- **Methodology :**

Both primary and secondary data were used. Key informant interviews, focus group discussions, case studies and direct field observation methods were used as the tools of

primary data collection. It gathered views of different stakeholders such as national and district level administrative officers in agriculture and tourism sectors, hoteliers, tour operators, agriculture instructors, community leaders, agricultural research and production assistants, and farmer organizations. The key informants' interviews were conducted to obtain their views, suggestions and extensive information on opportunities and challenges in developing agro-tourism in the farming community and to verify other field information gathered. Farmer level information was collected using focus group discussions to identify their capacity and resources to develop agro-tourism, available opportunities, challenges and issues to carry out agro-tourism in farmer level. Present agro-tourism and related activities, farmer perception on agro tourism, possible agro-tourism activities/products and potential benefits of agro-tourism were also identified according to farmer perspectives through the focus group discussions.

Limitations of the Study

This study was limited to one district in India with a focus on ten case study areas. Qualitative data collection methods were used to gather data. Therefore, findings of the study were based only on the analysis of qualitative data. Quantification of the economic benefits of the agro-tourism was challenging due to data unavailability.

- **Data Analysis:**
- **India as a guest:**

India has chosen Israel as a strategic partner (G2G) in the field of agriculture. This partnership evolved into the Indo-Israel Agricultural Project (IIAP), under the Indo Israel Action Plan, based on a MOU signed by Agricultural ministers of India and Israel in 2006.

The partnership aiming at introducing crop diversity, increasing productivity & increasing water use efficiency.

IIAP is implemented via establishment of Centers of Excellence (CoE), in which Israeli Technologies and know-how are disseminated tailored to local Indian conditions.

For a country like Israel where 60% of the area is desert, exporting high-value farm produce like mangoes and avocados is a matter of pride, whereas for India, among the largest food producers globally, the challenge is to counter the effects of erratic rainfall, raise productivity and use water efficiently.

So, it was with the objective of sharing best practices and technical knowledge from Israel that the agriculture cooperation project was launched in 2008. The implementing

partners for the project are the National Horticulture Mission (NHM) under the agriculture ministry, MASHAV, Israel's agency for international development cooperation, and Indian state governments which help set up centre of excellence as per their local needs.

India and Israel are set to jointly develop new crop varieties and share post harvest technologies following the success of the 10-year-old Indo-Israeli Agriculture Project (IIAP) whose accomplishments include growing cherry tomatoes in Haryana, rejuvenating mango orchards in Maharashtra and demonstrating to Indian farmers the effectiveness of state-of-the-art irrigation technologies.

There is a lot of focus on drip irrigation and how to design better farms by using canopy management and use of improved irrigation and fertigation technologies. Each centre showcases a range of greenhouses to farmers depending on their needs and capabilities. A unique focus is to teach farmers the language of irrigation - when to irrigate and by how much - to increase water use efficiency.

So far, 20 centres of excellence are functioning in different states and five more will be operational by next month. Notable among these are centres for vegetables in Karnal, Haryana, for mangoes in Dapoli and for citrus fruits in Nagpur, both in Maharashtra, and one for pomegranates in Bassi, Rajasthan.

Among the unique projects are a functional centre of excellence for bee-keeping in Haryana and a centre for dairy which is in the pipeline.

Following Prime Minister Narendra Modi's visit to Israel in July last year, a new action plan for the years 2018-2020 envisages joint development of new crop varieties and sharing of post harvest technologies.

Further, the plan is to establish a partnership on water conservation that includes wastewater treatment and its reuse for agriculture, desalination, water utility reforms, and the cleaning of the Ganga and other rivers using advanced water technologies.

According to a MASHAV document, vegetable intervention in Haryana showed how crop productivity could be increased 5-10 times under protected cultivation of tomato, capsicum and cucumber, coupled with 65% decrease in water use and substantial reduction in fertiliser and pesticide costs.

Similarly, the mango orchard rejuvenation project in Dapoli resulted in a three-fold rise in productivity within three years.

“Every year, between 10,000 and 20,000 farmers visit each of these centres, and we hope the technologies we are showcasing will echo, carried forward by state governments and the private sector,” said Alluf.

“One of the key ways to boost overall agricultural production is to implement better soil-water management techniques that would provide the arid and semi-arid lands better access to irrigation water, without actually increasing the stress on available water resources,” said a NITI Aayog concept paper released in October last year.

However, data from the report showed that out of 160 million hectares of cultivable land in India, only about 65 million hectares or 41% is covered under irrigation. Also, just 8.6 million hectares are currently covered under micro-irrigation compared to a potential 69.5 million hectares.

“In states which are water-stressed such as Maharashtra, Karnataka, Telangana and Gujarat, adoption of drip irrigation has been faster but so far, adoption of these technologies among north Indian farmers has been lower due to easy water availability,” said Siraj Hussain, former agriculture secretary and currently a fellow at the Delhi-based Indian Council for Research on International Economic Relations.

“The centre and state governments also need to push these technologies with more funding. Last year’s budget announced Rs5,000 crore micro-irrigation fund, but it took almost a year to operationalized it,” Hussain added.

- **India as a host:**

Pune suburban area has great diversity of culture, traditions and natural resources, which makes this place very attractive tourist destination. Three tourism themes have been selected as benefiting both tourists and local people.

- **Agro- Tourism benefits:**

- An inexpensive gateway
- Curiosity about the farming industry and lifestyle
- Interest in natural environment
- Disillusionment with overcrowded resorts and cities
- Rural recreation

- **Challenges to Agro-tourism:**

Agro-tourism is although a boom for the development of our rural society but if it can positively handled the following challenges in its path as stated below.

- Quality of the service
- Complexity in the delivery of the service
- Infrastructural deficiency
- Multi level channel

Involved this tourism development at local and

- Quality of the service
- Complexity in the delivery of the service
- Infrastructural deficiency
- Multi level channel involved this tourism development at local and
- Regional level.
- Literacy rate of the farmers and farm owners
- Government Support and Identification
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- Government Support and Identification:

Table No. 1 Data for the year 2018-19

Sr. no.	Name of agro-tourism center	Increase in the number of Local visitors than in the year 2017-18 In %	No. Of Foreign visitors Increased than last five years In %	Increase in the number of stakeholders In %	Use of Foreign technology for advance farming In %
1	Sahaihyadri tourism	30	10	20	0
2	Torana Tents Agro tourism	40	7	35	0
3	Parashar Agro tourism	50	5	49	10
4	DSK Pawan Agro tourism	60	35	50	7
5	ArohiShrushti agro tourism	30	22	50	6
6	Gurukul Agro tourism	40	30	35	0

7	Tour de farm	40	12	20	10
8	Mulshi Agro tourism	50	30	50	0
9	Mango forest Agro tourism	30	20	25	0
10	Mauli Agro tourism	50	7	15	7

Above table indicates that,

- Above table clearly indicates that, there is significant growth in the Local visitors. Which shows that people are preferring it as one of the most appropriate destination to visit. People are willing to spend money to go in rural area for going close to nature.
- Number of foreign visitors are not increased as per the expectation. Though the trend has started to visit the Indian Rural areas by foreign visitors. More marketing strategies should used to attract foreign visitors.
- Use of foreign technologies is very low till the date.

Table No. 2 Data for the year 2018-19

Sr. no.	Name of agro-tourism center	Awareness about Government Policies & schemes
1	Sahaihyadri tourism	Yes
2	Torana Tents Agro tourism	Yes
3	Parashar Agro Tourism	Yes
4	DSK Pawan Agro tourism	Yes
5	ArohiShrushti agro tourism	No
6	Gurukul Agro tourism	Yes
7	Tour de farm	Yes
8	Mulshi Agro tourism	Yes
9	Mango forest Agro tourism	No
10	Mauli Agro tourism	Yes

Above table indicates that:

80% of the selected sample is aware of the Government Policies, Subsidies. They are taking benefits as well from the Government. To increase the % of awareness, government needs to take drives for it. So that everyone should take a benefit.

• **Conclusion:**

Based on the data analysis we can conclude that,

- Impact of new approaches of globalization on Agro-Tourism is on large extend.
- It brings boom to the Farming sector by giving extra income through Agro-Tourism. Exchange of technology within various countries gives new scope in this field.
- We can conclude that Pune Agro-tourism industry is enjoying benefits of globalization by increased foreign visitors as well as increased local visitors.
- Though there is very less use of foreign technology which needs to be increased.
- Awareness of government policies, subsidies is on satisfactory level (80%). Still Government should take initiative to increase the awareness.
- Number of foreign visitors are not increased as per the expectation. Though the trend has started to visit the Indian Rural areas by foreign visitors. More marketing strategies should used to attract foreign visitors.
- Use of foreign technologies is very low till the date.

• **Suggestions:**

- To avoid the negative impact of globalization on Agro-tourism industry, farmers need to maintain balance between traditional farming and innovative business tactics.
- Professional training will be helpful to the Farmers to increase the business scope.
- Agro-tourism is now only additional activity run by farmer to increase the income level. Rather it should be considered as one of the separate business and should involve the business stakeholders.
- Government should arrange awareness drives for the farmers so they can take more advantages of Government policies and schemes.

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**“BECAUSE OF ADVANCEMENT IN TECHNOLOGY &
DIGITALIZATION AT LIGHTENING PACE, THE SCOPE OF
FINANCING ACTIVITIES ARE EXPERIENCING
TRANSFORMATION”**

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ABSTRACT

“Change is the only constant thing in nature”. The same has been seen in financial sector as well. Advancement in technology is playing a vital role in today’s financial world. Several tasks which were once completed by humans are now been handled by machines not only by big computers but by Artificial Intelligence and BOT’s. This new era has brought a new dimension and a transformed world where time is money. Technology in this sector has made an impact on every type of financial activities from payments to online banking to wealth management, risk management and more. In today’s world of cut throat competition Financial Companies have a lot of cost pressure due to which they are turning towards the most efficient ways of handling tasks and AI or is the latest solution provider. Many industry experts argue that AI or machine learning is the future but if we look around, we are convinced that it’s not the future but it is the present. Artificial Intelligence is gaining popularity at a quicker pace, influencing our day to day life, the way we interact with each other and it is finding the ways to improve customer experience. AI is the next big thing in financial industry. There is much more to come in the coming years with more improvements, development, and governance. In this study I have tried to find out how the latest technology i.e. artificial intelligence or machine learning is transforming the financial industry.

Introduction

Inception of Information Technology in Financial industry clock back to early 1960’s where the big financial institutions like banks had introduced in-house IT departments and employed thousands of people. These units were responsible to develop software’s and applications which connects internal departments including their branch offices.

Over the years, these systems also enabled electronic interfaces to customers like ATMs, online banking and to external stakeholders like financial exchanges with other banks. In the banking industry, multinational electronic networks emerged, such as the Society for Worldwide Interbank Financial Telecommunication (SWIFT) in 1973 and the Trans-European Automated Real-time Gross Settlement Express Transfer System (TARGET) in 1999. They were an important building block for digitalization between banks, which established interfaces to their internal systems (interbank area). In addition, providers of exchanges began a substitution of physical trading floors by electronic trading and clearing systems in the 1980s. Meanwhile, most exchanges worldwide are fully electronic and allow trading stocks, certificates and other derivatives in real-time via online modes not only by computers but also by mobile phones and tablets.

Financial industry has become highly competitive today. To be able to survive and grow in the changing market environment financial institutions are going for the latest technologies, which is being perceived as an 'enabling resource' that can help in developing learner and more flexible structure that can respond quickly to the dynamics of a fast changing market scenario. It is also viewed as an instrument of cost reduction and effective communication with people associated with financial institution businesses. The financial reforms, deregulation, globalization etc. coupled with rapid revolution in communication technologies and development of innovative concept of convergence of communication technologies like Internet, Mobile/Cell phones etc. Technology has continuously played an important role in the working of financial institutions and the services provided by them. Safekeeping of public money, transfer of money, issuing drafts, exploring investment opportunities and lending drafts, exploring investment being provided. Information Technology enables sophisticated product development, better market infrastructure, implementation of reliable techniques for control of risks and helps the financial intermediaries to reach geographically distant and diversified markets. Information technology refers to the acquisition, processing, storage and dissemination of all types of information using computer technology and telecommunication systems. Information technology architecture is an integrated framework for acquiring and evolving IT to achieve strategic goals. These technologies are used for the input, storage, processing and communication of information. Information technology includes ancillary equipment, software, firmware and similar procedures, services etc.

Review of Literature

The impact of IT in Financial Organisations is extensive and is manifested in the most varied ways (Granlund, 2007; Alves, 2010). “Prior to the emergence of this environment, the presence of IT in the organization has typically taken the form of specific computer application systems, such as accounts payable and financial reporting systems, which either automate specific operational procedures or support certain managerial processes” (Teng & Calhoun, 1996: 674). It is usually argued that the first use of an information system was in relation to accounting (Rom & Rohde, 2007), because IT was often centered around the firm’s financial ledgers and reporting systems (Granlund & Mouritsen, 2003). But, “the constantly growing and changing field of information technology has a significant impact on the roles of executives at all levels of business organizations” (Crescenzi & Kocher, 1984:34). Nowadays, research within management accounting and information systems is coming alive with the advent of integrated information systems such as enterprise resource planning systems (Chien & Tsaur, 2007). In this context, “information management has emerged as the most common brief name for the management of the use of information technology in an organization” (Frishamar, 2002:149). Since the use of IT in financial reporting does not have a very long history, some research has been carried out in this regard with its major focus on the Internet technology and its effects. Majrebiyan (2005) conducted a study about the impact of web-centered accounting on the quality of information, on the accessibility of data and finally on economic decisions of managers. Results show that based on the responses of participants, qualitative characteristics of accounting information increase through the use of web-centered accounting, and access to data also becomes easier and faster. Therefore, it can be claimed that by using a web-centered accounting system, managers of enterprises could be better prepared for making wise and reasonable economic decisions. Lodhia, Dedrick, Gurbaxani & Kraemer (2003) investigated the impact of using superior communication technology in offering financial inventories at the request of users. Their research focused on studying the impact of superior communication on decisions and predictions, on the level of data accessibility and on the time required for decision-making by users. The study focused on two kinds of companies: small and big companies. In the case of big companies, results did not differ no matter whether financial inventories were done by using superior communication or not, while there was a meaningful difference for small enterprises between these predictions.

Artificial Intelligence - The next big thing in Financial Industry

What is artificial intelligence - the theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between different languages' Today, Artificial Intelligence or machine learning is a very popular subject that is widely discussed in the technology and business circles. With the advancement in technology, we are already connected to AI in one way or the other, whether it is Siri, Watson or Alexa. Yes, the technology is in its initial phase and more and more companies are investing resources in machine learning, indicating a robust growth in AI products and applications in the near future.

The following statistics will give you an idea of growth!

- In 2014, more than \$300 million was invested in AI startups, showing an increase of 300%, compared to the previous year (Bloomberg)
- By 2018, 6 billion connected devices will proactively ask for support. (Gartner)
- By the end of 2018, “customer digital assistants” will recognize customers by face and voice across channels and partners (Gartner)
- Artificial intelligence will replace 16% of American jobs by the end of the decade (Forrester)
- 15% of Apple phone owners’ users use Siri’s voice recognition capabilities. (BGR)
- Unlike general perception, artificial intelligence is not limited to just IT or technology industry instead, it is being extensively used in other areas such as medical, business, education, law, and Finance.

Benefits of Using AI or RPA.

There is no other business sector that is more focused on developing and implementing AI for speed, accuracy, and efficiency as much as the financial industry. At the heart of the AI revolution are machines learning algorithms, software that self-improves as it is fed more and more data, a trend that the financial industry can benefit from immensely. AI in finance is creating a huge impact. Robotic process automation, or RPA, is a technology used across multiple industries to automate business processes. RPA software involves what are known as “software robots” to handle repetitive tasks traditionally handled by human employees. That said, there are no actual robots involved in the way one might see in manufacturing or heavy industry. The basic

reason why today financial industry is implementing RPA is to reduce time and cost of production using the most efficient ways.

Robotic process automation seems to have gained traction amongst large financial institutions and banks where the scale of business processes is too large for human staff to deal with. In such cases, the financial firms can benefit by freeing up the time their staff spends on managing business processes and reduce operational costs.

Business leaders in finance who are familiar with RPA are interested in adding artificial intelligence capabilities to their software robots to optimize their functioning over time. As per trend in the next two to five years business processes involving document digitization (extracting information from non-digital formats like paper) might be automated using intelligent OCR and NLP. We might see RPA platforms leverage machine learning to automatically prompt businesses with insights on improving efficiency. RPA might still be a necessity only for firms with large enough scale of operations where the integration and capital costs are justified by the cost savings achieved through the automation.

Transformation in Finance Industry

Based on the recent developments in financial world we can say that AI in finance is all about continuous learning and re-learning of patterns & data. AI gives the flexibility to build upon the current system or line of financial products and services. This means there is no need to start from scratch, but can easily keep improvising the offerings over time. Once introduced, AI will keep the financial services updated and ready to face the market. AI in finance is, therefore, invaluable contributing to the financial industry. Over time, AI is not only going to revolutionize the financial industry but become the industry itself. Below mentioned are the few ways AI is transforming financial industry.

Financing Activities

Managing finances in this well-connected and the materialistic world can be a challenging task for so many of us, as we look further into the future we can see AI helping us to manage our finances. PFM (personal financial management) is one of the recent developments on the AI-based wallet. Wallet started by a San Francisco based startup, uses AI to build algorithms to help the consumers make smart decisions about their money when they are spending it. The idea behind the wallet is very simple it just

accumulates all the data from your web footprint and creates your spending graph. Advocates of privacy breaching on the internet may find it offensive but, maybe be this is what lies in future. Thus it has to be the preferred personal financial management in order to save time from making lengthy spreadsheets or writing on a piece of paper. Since the speed at which it is making progressive steps towards making the financial processes easier for the customers, it is very soon going to replace humans and provide faster and much more efficient solutions. Bots are gradually evolving as innovations are being in the AI sector. Massive investments are being made by the firms who are seeing this as a long-term cost-cutting investment. It helps the companies in saving money of hiring humans and also avoiding human errors in this process.

Though it is still in its initial stage the speed at which it is progressing to evolve the finance sector, it can be well expected that the prospects are going to lead to minor losses, smarter trading and of course top-notch customer experience.

Investment Decisions

Investment companies have been relying on computers and data scientists to determine future patterns in the market. As a domain, trading and investments depend on the ability to predict the future accurately. Machines are great at this because they can crunch a huge amount of data in a short while. Machines can also be taught to observe patterns in past data and predict how these patterns might repeat in the future. While anomalies such as the 2008 financial crisis do exist in data, a machine can be taught to study the data to find 'triggers' for these anomalies, and plan for them in future forecasting as well. What's more, depending on individual risk appetite, AI can suggest portfolio solutions to meet each person's demand. So a person with a high-risk appetite can count on AI for decisions on when to buy, hold and sell stock. One with a lower risk appetite can receive alerts for when the market is expected to fall, and can thus make a decision about whether to stay invested in the market or to move out.

Detecting Frauds

Every business aims to reduce the risk conditions that surround it. This is even true for a financial institution. The loan a bank gives you is basically someone else's money, which is why you also get paid an interest on deposits and dividends on investments. This is also why banks and financial institutions take fraud very, very seriously. AI is on top when it comes to security and fraud identification. It can use past spending

behaviors on different transaction instruments to point out odd behavior, such as using a card from another country just a few hours after it has been used elsewhere, or an attempt to withdraw a sum of money that is unusual for the account in question. Another excellent feature of fraud detection using AI is that the system has no qualms about learning. If it raises a red flag for a regular transaction and a human being corrects that, the system can learn from the experience and make even more sophisticated decisions about what can be considered fraud and what cannot.

Managing Risk

Since the very basis of AI is learning from past data; it is natural that AI should succeed in the Financial Services domain, where bookkeeping and records are second nature to the business. Let's take the example of credit cards. Today, we use credit score as a means of deciding who is eligible for a credit card and who isn't. However, grouping people into 'haves' and 'have-nots' is not always efficient for business. Instead, data about each individual's loan repayment habits, the number of loans currently active, the number of existing credit cards, etc. can be used to customize the interest rate on a card such that it makes more sense to the financial institution that is offering the card. Now, take a minute to think about which system has the capability to go through thousands of personal financial records to come up with a solution- a learned machine of course! This is where AI comes in. Since it is data driven and data dependent, scanning through these records also gives AI the ability to make a recommendation of loan and credit offerings which make historical sense.

AI and ML are taking the place of a human analyst very fast as inaccuracies which are involved in human selection may cost millions. AI is built upon machine learning which learns over time, less possibility of mistake and analyzing vast volumes of data; AI has established automation to the areas which require, intelligent analytical and clear-thinking.

Cost Effectiveness

This is something we all must have experienced and would, therefore, agree with. AI in finance has automated processes and drastically reduced the cost of serving customers. While AI has, on one hand, reduced the cost of financial services, on the other, it has made financing extremely convenient to avail. Through various digital servicing channels, AI is proving effective in attracting that large section of the population to financial services, which previously found them cumbersome, expensive, and time-consuming.

Decision Making

AI in finance is opening up new avenues for banking and insurance leaders to seek advice. No more are financial experts limited to human opinions in order to make forecasts or recommendations in the field of finance. With AI in finance, these leaders can now ask machines questions that are pertinent to their business and these machines can, in turn, analyze data and help them take data-driven management decisions.

Wealth Management

One of the banking areas that have seen a considerable investment in AI is wealth management. Both incumbents and newcomers are realizing that the digital shift happening in the banking space would affect this sector. Industry heavyweights are acquiring tech start-ups with special focus on automatic analysis of large amounts of unstructured data. The purpose is to detect "typical" behavioral patterns. These experts are hoping to build AI engines, which can provide insights on how to best service their high-net-worth clients. By automating large parts of the wealth management process, they would be able to offer personalized, tax-optimized investments to clients, who have far less in investable assets than what would usually qualify for professional wealth management.

Conclusion

The current finance services are all molded based on creating a faster, more efficient service for customers which focusses towards easily accessible quicker options. The cloud-based technology is so often used, the importance of information technology is incredibly vital. When looking at information technology one must look at the entire global financial systems in place which allow this type of technology to flourish and function at an entire global level. The role of information technology in finance allows financial institutions to constantly get new information at the same rate as their competition. The impact of information technology on financial services also allows customers to be able to easily complete online transactions, which creates a better influence in finance, allowing for the development of information technology and initially create a more fast and efficient service. Financial reporting is also an industry within information technology that has greatly impacted the financial service industry. The growing transformations in information technology have significantly enhanced the way we use financial reports.

Technology has overall driven a persistent obligation for accessibility and innovation something that keeps changing forever. The role of information technology in finance

departments plays a big part ranging from small to large applications and operations. Creating more automating and personalized processes strengthens the power of information technology in our society the best example is the way robo-advisors are used. This is a prime example of how IT has taken over how we look at automation in wealth management services such as asset allocation and investment opportunities. Cloud-based services such as Dropbox plays a vital role in information technology, but these services play tangent roles with data reporting and analysis.

Online banking and transactions, and mobile payments are extremely popular in our society today. There are a ton of exposures since financial transactions are being used so much, many financial institutions have to adapt to the latest security, and updated technology in order to stay up to date. Even though there are a lot of risks that are associated with the use of information technology, there are a lot of positive aspects to the use of advanced technology.

There are billions of financial transactions that are happening on a day to day basis, this is why information technology is perfect for the way the financial systems are set up. The software tools and computer systems that are in place for automation, create a huge importance for the use of information technology in finance.

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CALCULATION OF BUSINESS VALUATION BY USING PRICE/EARNING MULTIPLE METHOD

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Domain Area: Finance

Abstract:

Business valuation is a powerful tool to find out intrinsic value of business. It guides to the managers for running the company in a competitive environment. Manager can learn about how to take decision by combining financial and non-financial factors, which will enhance business value. Now day's investors are paying more attention on business value and share price before their investment in the respective company. There is a need of more accurate and suitable models which will minimize risk in valuation by giving same value of business. Valuation estimates can vary widely among experts, these variations arise because, experts use different valuation models or make different assumptions because estimating parameters in the models are not clear.

Keywords: Business valuation, cash flow, risk profile, market price, P/E multiple, P/B.

1.1 Introduction:

Business valuation models are becoming more complex, because these require number of inputs to value a firm. The analysts are often facing a problem in valuations due to too much of collected information of that company, separating the information which matters and which does not matters in business valuation is crucial task. Business valuation of a large and mature company having a long financial history is usually more precise than the valuation of a young and new startup company. Analyst should find true value of the business which could be related to financial characteristics like its growth prospects, cash flows and risk profile. Any deviation from this true value is a sign that a stock is undervalued or overvalued. Therefore the best estimate of value is the market price.

1.2. Classification of Business Valuation Methods

A. Balance Sheet-Based Methods

- i. Book Value Method
- ii. Adjusted Book value Method

iii. Liquidation Value Method

iv. Substantial Value Method

B. Income Statement Based Approach (Relative Valuation)

I. Relative Valuation using Fundamentals

i. Price Earnings Multiples

ii. EV/EBITDA Multiples

iii. Price to Book Value Multiple (P/B)

II. Relative Valuation using Comparables

i. Cross Sectional Comparison

ii. Comparison Across time

C. Cash Flow Discounting Based Approach

I. Free Cash flow to Equity Method

II. Free Cash flow to Firm Method

III. Dividend Discount Method

IV. Gordon Discount Model

V. Adjusted Price Value Method

D. Value Creation based Methods

i. EVA

ii. Economic Profit

E. Option Pricing Methods

i. Black and Scholes Method

ii. Investment Option Method

1.3 Review of Literature:

1. Damodaran (2006)¹ in his book “*Damodaran on Valuation Security analysis for Investment and Corporate Finance*”,

The author focused on loose ends in valuation like liquidity, control, synergy, transparency, and distress which affect on value of business. According to his opinion, there are too many valuation models available for business valuation purpose, choosing the right model is as critical to arrive at a sensible value as knowing how to use the model. He gave a guidelines could be used to choose the right business valuation model

2. Berkman Henk et.al (2000)² in research article “*The Accuracy of Price-Earnings and Discounted Cash Flow Methods of IPO Equity Valuation*”,

They compared valuation resulting from conventional discounted cash flow and price earnings valuation methods to the market price. They took newly listed companies 45 on New Zealand Stock Exchange to compare valuation and they concluded that, the discounted cash flow method and price earnings comparable produce same result.

3. Richter Frank, Herrmann Volker (2003)³ in research paper “*Pricing with performance controlled multiples*”,

The authors said that the multiples resulting from comparable companies are used as a point of reference in business valuation.

In their research while calculating valuation, they used specific control factors such growth and profitability to select “comparable assets”. They also guided about varied methods of estimating multiples from comparable assets.

4. Adams, et. al(2011)⁴ in research paper “*Comparison of Alternative Approaches To Equity Valuation of Privately Held Entrepreneurial Firms*”, they gave two alternative approaches to estimate the prospective value of private firms which are not traded in the public market place. The first approach shows an accounting point of view and focus on capitalizing the residual earnings of the firm. The second approach, Residual Income Model (RIM) states that the firm value is the sum of its invested capital and the discounted present value of the residual income from its future activities

1.4 Research Methodology:

- **Type of Research:**

Type of research is Exploratory Research; here researcher has to go for post martum analysis of annual reports of the company to judge the performance of company. Researcher has to explore many things like, risk, market price of share, return on equity, cost of capital while understanding performance of business.

- **Population :**

There are 27 Listed Automotive companies in Pune region, out of which researcher has selected Bajaj Auto Limited company and Mahindra & Mahindra Ltd(Mahindra Rise) as a sample, criteria for selection of sample is based upon the past performance of target company. The company which is suffering a loss could not be selected as a sample.

- **Sampling Technique:**

Here researcher has used Non probability sampling technique of which convenience sampling technique is more suitable.

- **Sources of Data collection:**

This research is totally depends upon secondary data which is collected from annual reports of Bajaj Auto Limited.

1.5 Research Gap:

Business analysts are still facing estimation challenges due to lack of clear guidelines about estimation practices. By referring the literature it is seen that valuation practitioners ignore the recommendations provided by the theory which creates ambiguity in final business valuation. The good thing is that most practitioners find valuation models useful because of standardization and comparison with peers, the fact is that two experts arrive at different estimates even though they use the same model, it shows the wide gap between the theoretical valuation framework and its implementation.

There is a need of more accurate and suitable models which will minimize risk in valuation by giving same value of business. Valuation estimates can vary widely among experts, these variations arise because, experts use different valuation models or make different assumptions because estimating parameters in the models are not clear.

1.6 Introduction of Price/Earnings Multiple (P/E):

The P/ E Multiple is one of the business valuation method under relative business method. This method is the indicator to judge the worth of a company's share. Most of the investors generally watch the progress of stock indices like Sensex & Nifty to understand whether the market is falling or rising.

The multiple basically tells investors what is the price to be paid per share for one rupee of earning generated by Target Company. The high P/E ratio indicates that, investors are optimistic and they expect higher earnings growth in the future, and if P/E multiple is low, it means that the stock is undervalued and there is a scope for appreciation in future. Generally P/E ratio less than 10 is often treated as cheaper.

Formula:

$$\text{P/E Ratio} = \frac{\text{Market price per share}}{\text{Annual Earnings per share}}$$

P/E ratios alone cannot be used for decision making and an investor should also check the Quality of profits as well as its sustainability before taking a final call.

1.7 Applicability of this P/E Multiple:

- i. If company is in profit then only this multiple can be considered, in case of loss making company it is not applicable.
- ii. This multiple is used when investor wanted to know, by how much times he should pay with respect to earning of company when buying the shares of company.
- iii. When investor or buyer wants to know the lowest minimum amount at which deal would be carried, in such circumstance this method is applied.
- iv. High Price to earnings ratio indicates that investors expect high earning growth in future. In case of investing purpose, only P/E ratio should not be considered as a standalone parameter.

1.8.1 Model of Price/Earning Multiple Method

Table No 1.1 : Business valuation of Bajaj Auto Ltd. by Price /Earning Multiple Method

	Amt. in Cr.				
Particulars	2013-14	2014-15	2015-16	2016-17	2017-18
a. Market price per share	2083.60	2016.60	2,422.45	2,945.35	3,077.4
b. Earning per share	116.80	104.60	130.8	132.3	140.6
c. P/E Ratio	17.8	19.3	18.5	22.26	21.88
d. Net Profit Earned (In Crores)	3380.28	3025.63	3783.98	3,827.56	4,068.1
e. Value of Firm = (c*d) in Cr.	60301.0	58331.6	70080.3	85201.48	89010.02

(Source: Self generated through Annual Reports of Bajaj Auto Ltd.)

1.8.2 Model of Price/Earning Multiple Method

Table No 1.1: Business valuation of Mahindra & Mahindra Ltd. (Mahindra Rise) by Price /Earning Multiple Method

	Amt. in Cr.				
Particulars	2013-14	2014-15	2015-16	2016-17	2017-18
a. Market price per share	980.7	1187.8	1219.75	1295.00	746.00
b. Earning per share	79.06	53.12	54.25	30.69	36.64
c. P/E Ratio	12.4	22.4	22.5	42.20	20.36
d. Net Profit Earned (In Crores)	4666.93	3137.47	3,211.26	3,643.39	4,356.01
e. Value of Firm = (c*d) in Cr.	57890.95	70156.0	72201.56	153751.05	88688.36

(Source: Self generated through Annual Reports of Mahindra & Mahindra Ltd.

(Mahindra Rise)

1.9 Limitations of P/E multiple method

- i.** P/E multiple represents a picture of where a firm is right now, but it fails to confine the active and ever-evolving nature of business.
- ii.** If a company manipulates its earnings, so earnings per share and Price to earnings ratio can be vague.
- iii.** In case of irregular P/E ratio, at the time business valuation analyst considers the past earnings of a company. So, this ratio won't provide clear idea of future earning prospective of a company to the investor.
- iv.** Multiples are based on historic data hence valuations based on such multiples will fail to know the differences in estimated performance up to longer term, and it will produce complexity to value correctly cyclical industries unless somewhat subjective normalization adjustments are made.

1.10 Risk involved in this method

- i.** Price to earnings ratio is a superior and easy gauge of stock valuation, but investor should not consider this multiple alone, during investment decision.
- ii.** In conjunction with P.E ratio before investing, investor should verify all other fundamental parameters also.
- iii.** While considering Price to earnings ratio of a stock, investor should consider the average P/E ratio of other stocks in the same sector. If it is not available, then he could consider same company's multiple of past years.
- iv.** If Investor finds that the Earning per share is increasing with constant rate, but P/E ratio is not increasing due to bad market condition then he should consider it as a good opportunity to buy the stocks.

1.11 Findings:

- 1.** Business valuation by Price Earning method is towards lower side because it is realistic calculation from past to present, which ignores company goodwill value.
- 2.** P/E ratio method is widely used in practice, which relies on finding listed companies in similar businesses to the company being and looking at the relationship between share price and earnings.
- 3.** Valuation of a young company is more difficult due to the lack of historical data and uncertainty about many elements that could influence its development.

4. In case if company is suffering a loss, this method is not applicable for such company.

1.12 Conclusion:

Value of business depends not only on company's historical financial results but also its ability to create value in the future. Before using a particular model for business valuation, investor/analyst should deeply study the company's financial performance then he could select a suitable model for valuation purpose.

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**BROUGHT OUT PART (BOP) CAPACITY PLANNING IN
AUTOMOTIVE INDUSTRIES**

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ABSTRACT

In present competitive age, customer never waits for product availability. Unavailability of product means losing of market for competitors. Proactive capacity planning is ensuring the maximum utilization of available resources. To achieve highest level of customer satisfaction, it is very essential to utilize advance technology, continuous improvement and on time delivery within desired cost. To do focus in marketing area, most of OEM's are arranging maximum required sub-assembly and parts from his supplier partner. Arranging parts from supplier means opportunity to utilize expert's skill and advance technologies. This paper is focus on area, in which OEM are taking supply assurance from his supplier partner and participate in capacity allotment and physical verification activity.

Capacity confirmation & verification is one of proactive activity, in which customer toss his annual forecasted requirement with his supplier partner. After studying all necessary resources, supplier shares his all 4M (Men, Machine, Method & Material) preparation to catch customer requirements. This paper considers one of casting part as case study and process wise capacity allocation against customer requirement.

Keywords : *Bottleneck, 4M, Outsourcing, Capacity Planning, Efficiency, Takt Time, Cycle Time.*

Introduction –

Present age is the competitive age; every organization is focusing to prove their products are obtained more customer satisfaction by showing extraordinary performance with his competitive commodity. Those products are aligned with advanced technology and achieving more customer interest in declared performance, they will achieve market leader position. Quality, Cost and on time delivery are the key factor; which always require sustaining organization growth rate.

Outsourcing is a great option for automotive industry to make the work process easier to handle. Those working in an Automotive Industry may choose to **outsource** work so

that they can continue to focus on the core business processes. Outsourcing reduces certain costs, which may include peripheral or "non-core" business expenses, high taxes, high energy costs, excessive government regulation or mandates and production or labour costs.

Almost all OEM's around 60%~70% working capital are engaged in the Outsource material inventory, that means Outsourcing activity are major player to decide organizational growth towards Profit making objective. Unnecessary increase in Outsource material inventory is creating direct impact on organization profit calculation. Also the unplanned reduction in the inventories will increases manufacturing losses or unnecessary addition expenses burden on the organization.

Proactive Capacity planning is one of essential organizational activity; in which management team allocate his in-house resources as per the Marketing team business projection. Proactive Capacity planning calculates the gap between business demand and available capacity. Gap calculation provides direction to organization to take Make or Buy decision.

“A make-or-buy decision is the act of selection between producing a product in-house or purchasing it from an external supplier”. To take make-or-buy decision, it is necessary to calculate associated costs of production and whether the business has the Capacity to produce at required levels.

Organization business forecasting –

Organization success is always depending on accuracy of sales prediction. Business forecasting is one of organization technique, which guides organization for deciding their operation strategies. Normally OEM has defined their 5yrs~10yrs business targets, known as a long term business plan. To decide these long term business target, organizations sales and marketing team are reviewed their market situation and customer demand. By considering market feedbacks, organization will plan to add new product for maintaining growth rate and also obsolete the slow and non-moving products for avoiding unnecessary locking of working capitals. Addition and deletion of products are essential to maintain interest of his business partners.

To fulfil marketing and sales requirement, organization operation planning team are arranged to make annual production plan or catch up plan. To achieve these annual production plan, operation planning team are reviewed his in-house resources and make further expansion plan against in-house bottleneck processes. Finish products are always combinations of different types of chain processes, which are required to

achieve products dimensional, functional and defined performance characteristics. The process which has high “Q” factor (yield) and more production Tact time are called bottleneck process. Ramp-up production plan are always depending on bottleneck elimination time.

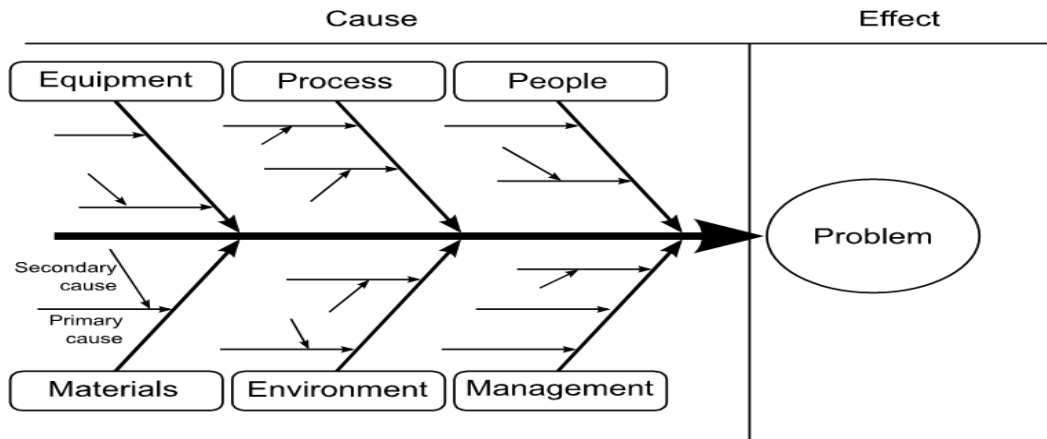


Fig. 1 - Fishbone Diagram - for finding bottleneck

Ref.: [Bottleneck \(production\) - Wikipedia](#)

A fish bone diagram is a graphical means to find out potential problems in the chain of processes. By collecting data related to problem and putting them into the diagram, it becomes easier to analyse problem. The data put in the fish bone diagram are determined roots of problem. This method is usually used to realize the bottleneck in the chain of processes because of having the ability to pinpoint the machine, which is exactly responsible for the delay in production.

Capacity planning is one of important term, which find-out the discrepancy between available capacity and demand of his customer. Discrepancy between available capacity and demand may create inefficiency, either underutilized resources or dissatisfied customers. The former may be a heavy gain but the latter may lead to lost sales, lost customers and probably loss of reputation.

Operation management can also take Offloading decision to minimize gap between required and available capacity. Outsourcing strategies has been addressed supplier commodity strategies, cost reduction plans, innovative and efficient new programme development and flawless product launch via robust safe launch planning. Supplier performance will be closely monitored and supplier status will be result. No organization can succeed without the superior quality, cost, service and technology offered by its supply base.

Brought out Parts capacity can be increased using a number of methods which involve adjusting the resources and inputs at supplier organization such as:

- * Introducing new approaches and materials.
- * Increasing the number of suppliers or machines.
- * Increasing the number of working hours.
- * Acquiring additional facilities.
- * By doing Automation.

Brought out parts Capacity Planning –

OEM production planning team makes the annual production plan, which is always align with the sales requirements. Production planning team reviews the in-house available capacity and available scope for expansion.

Finish Product is combination of different kinds of processes, which requires achieving dimensional, functional and defined performance of the product. Capacity is always replica of the bottleneck process. The process which has very high “Q” factor (yield production) and more production Takt time as compared to other processes are called bottleneck process.

Organization purchasing team shares their annual BOP requirements with concern supplier and ask for Capacity confirmations. As like as OEM capacity planning, tier 1 suppliers are also reviewing their other customer requirements and availability of his spare facilities. Capacity review and confirmations are always by considering all aspects of 4 M conditions i.e. Machine, Men, Material and Methods. Review of available resources and their production capacity are essential to find out scope for capacity expansion. Capacity is elaborated under three categories; design capacity, effective capacity and actual capacity.

Design Capacity -

This is a theoretical number and calculated by dividing available time with process cycle time, design capacity means *maximum conversion rate without stopping* for any shift changeovers, maintenance or any other delays.

$$\text{Design Capacity} = \frac{\text{Available Time}}{\text{Process Cycle Time}}$$

Effective Capacity -

In ideal situation, there are certain planned or fixed losses considered to calculate actual available time. These losses create the gap between design capacity and effective capacity.

Shift changeovers time, lunch / tea breaks, set up time and many other operational factors are considered as a fixed or planned loss.

$$\text{Effective Capacity} = \frac{\text{Available time} - \text{Fixed Losses}}{\text{Process Cycle Time}}$$

Actual capacity -

In actual situation, as like as fixed losses there are also certain unplanned or variable losses, which need to be considered while calculating organization actual capacity. Poor work rate, absenteeism, machine breakdown, production plan change etc. are considered in the unplanned losses. Calculation of unplanned losses is based on past data.

To increase production efficiency, it is essential to minimise these unplanned or variable losses.

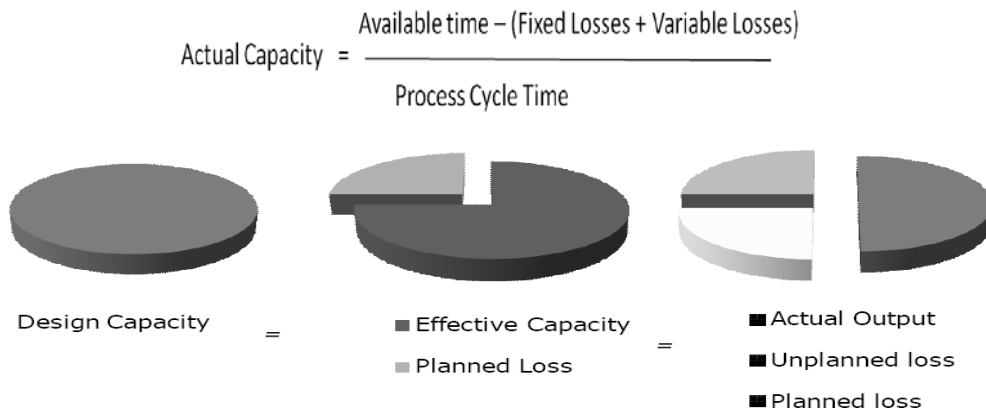


Fig. 2 - The proportions of capacity measures

Ref.: BOYDELL_2011_pub_Ch7_Capacity_planning_and_management.pdf

Calculation of Organization Efficiency –

Organization production efficiency is the important term to improve production and increase utilization of available resources. Manpower utilization, machine efficiency, material availability and method effectiveness are the factors contributing into production line efficiency.

“Organization efficiency can be calculated by dividing actual capacity with effective capacity”.

$$\text{Organisation Efficiency} = \frac{\text{Actual Capacity}}{\text{Effective Capacity}} \times 100$$

Efficiency is one of important factor to judge the performance of the organization. Efficiency is directly depending on the effectiveness of all Four “M” (Men, Machine, Material and methods).

1) Manpower utilisation –

Manpower is normally indicated by their skill level, such as fully skilled, semi-skilled and unskilled manpower. Organizations are defining their critical and quality operations in PFMEA (Process Failure Mode Effect Analysis) sheet.

“Those operations are required more accuracy or minor errors can also create non conformities in the final product are called critical operations”.

“Those operations are more sensitive with respect to final products performance, dimensions and characteristics are called Q or quality operations.”

Process FMEA are always recommended, to what level of manpower skill required for carrying out allotted task. Unavailability of recommended skill level manpower increase the quality issues and reduces the productivity.

2) Machine Efficiency –

Machine efficiency is one of important factor, which are frequently overlooked by management and this can lead towards losses which reduces the yield. Regular preventative maintenance and health check-up are necessary to reduce the breakdowns in the machine. The purpose of machine is to work efficiently but due to improper preventative maintenance, machine can be less productive. The preventative maintenance activity on machines needs extra attention by the management along with the responsible personnel to ensure optimum usage of machineries, which will eliminate unwanted losses due to machine stoppages.

3) Availability of Material –

Productivity is strongly depending on availability of right quantity of material, at right time, right quality and at right place. Material unavailability at point of use can be a problem for smooth production activity. Material unavailability creates delay in production, rework, uses of extra resources and also increase work in process inventories etc., which can involve additional cost. Quality of input material are always affects the quality of final products.

4) Effectiveness of Methods -

Method of carrying out specific task is also one of important factor which directly relates with organization productivity. Defined operation sequence, minimum transit lead time, minimum motion loss and fatigueless process are key terms to

improve productivity. Designing effective methods is one of continuous improvement activity. Simplification and fatigueless operations are always supported to increase moral of operators.

Efficiency calculation is one of management decision making tool, which always helpful to management for his resource planning i.e. manpower, machines and input material requirement.

Steps for calculating machines requirements –

1) Customers requirement –

It is very essential to properly understand the requirements of customer. Customer forecasted schedule is one of decision making tool, which guides organization for calculating his available resource capacity. Achievement of customer peak schedule is the target for supplier capacity & production planning team.

2) Process sequencing –

To achieve defined performance, dimensional and functional characteristics at final stage, it is essential that product must go through into different processes. To find out bottleneck process, it is required to calculate process wise existing utilization and available spare capacity for new business. Overbooking of capacity can always create trouble for achieving customer schedule.

3) Process wise efficiency –

Each process has own process capabilities and criticalities. To calculate actual capacity of any product, it is required to consider process wise efficiencies.

4) Customer Cycle Time –

It is calculated by dividing available working time with customer requirement.

$$\text{Customer Cycle Time} = \frac{\text{Available Working Time}}{\text{Customer Requirement}}$$

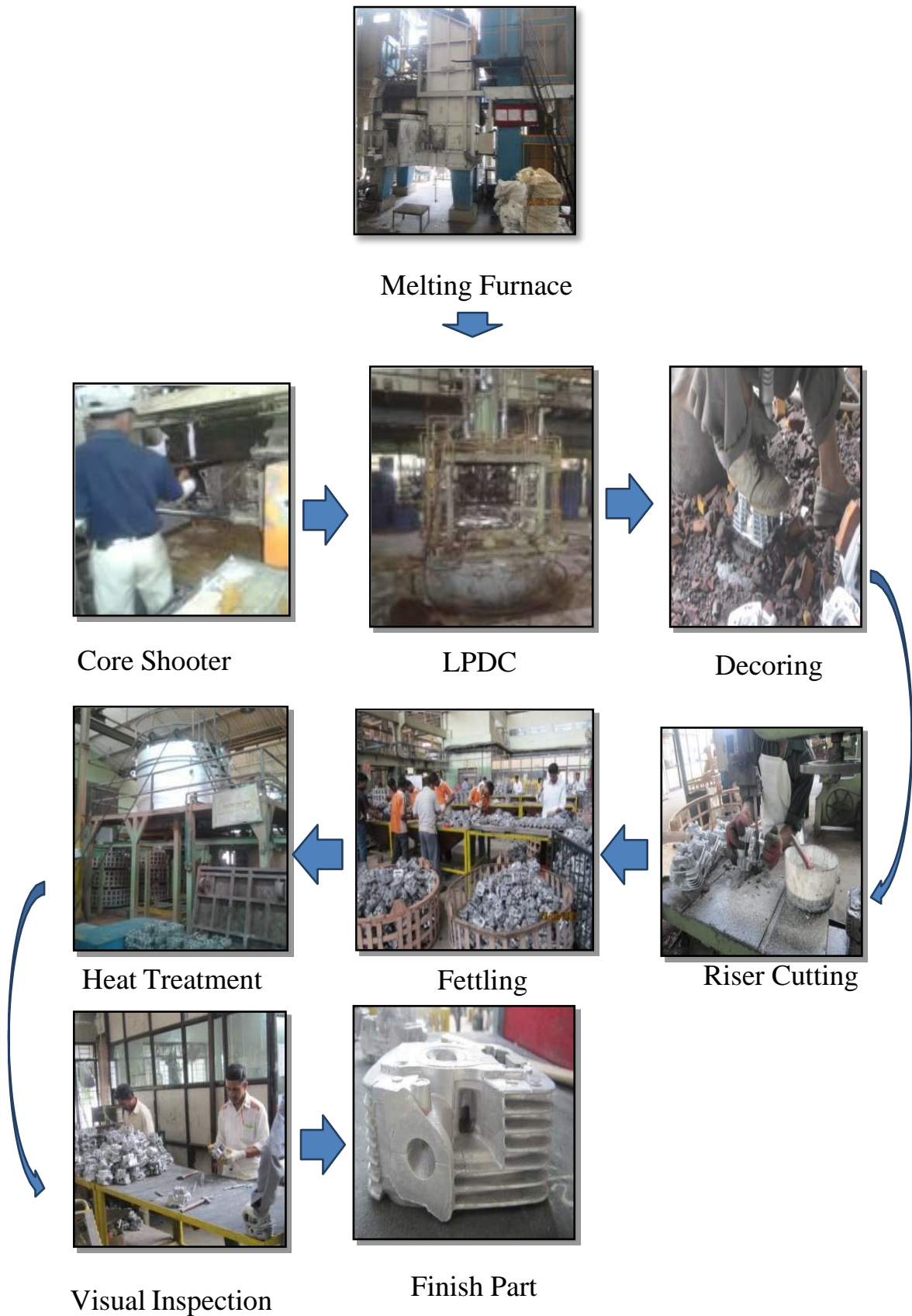
5) Machine Requirement –

It is calculation of machine allocation, which requires fulfilling customer requirement. Machine requirement can be calculated by dividing Customer cycle time with operation cycle time.

$$\text{Machine Requirement} = \frac{\text{Customer Cycle}}{\text{Operation Cycle Time}}$$

Capacity Planning for Casting Part (Aluminium foundry)-

Process Flow –



Melting Furnace -

A Furnace is a device which used to melt the metal for further metallurgical process.

Core Making –

To create the interior surface (shape angle more than 180°) chemically bonded sand is used, which is known as core. Core making is a process, fine AFS graded sand is coated with resin and blown into a preheated core box to get desired shape. The surface temperature is around 210° - 250° C (as per process requirement).

Casting –

Casting is the process, in which molten metal is poured into a mold and allowed to solidify to get desired shape. Ejected solid part is known as casting.

Decorating –

Decorating is the process in which sand core are removed by vibrating casting. Normally pneumatic hammer is used to vibrate the casting, which results loosen the sand.

Riser Cutting –

Riser is known as a feeder; it is a reservoir built into the mold to prevent cavities from shrinkages.

Fettling –

Fettling is a process, in which unwanted and unnecessary parts are removed to make finish casting. In sand casting when casting has solidified, there are reaction between product and sand. Burn sand creates impression on casting surface which results casting surface not smooth as we expected.

Heat Treatment –

Heat Treatment process is created effect on material structure and grains, which results alter the chemical, mechanical properties of the product. Heating, soaking and cooling are the three stapes of heat treatment process.

Heat treatment techniques are used to achieve desired results such as hardening or softening of a product.

Visual Inspection –

Customer provides the limit sample for defining acceptance level, training supplier quality inspectors and making awareness of operators.

Visual Inspection is required to prevent outflow of aesthetical and visual defects.

Machine Requirement Calculation Table –

Process Name	Capacity Requirement	Cycle Time in Sec.	Cavity or Batch Quantity	Average Fixed Losses in Sec / Day	Average Variable Losses in Sec. / Day	Available Time	Customer Cycle Time	Machine Requirement
Note	A	B	C	D	E	F	G	H
Formula	Customer Demand	Actual Machine (Process) Cycle Time		Lunch/ Dinner + Tea Break + Machine PM etc..	Machine B/d + Quality Issue + Absentism etc..	= ((24*60*60) - (D+E))	= (F / A)	= (B / (H * C))
Core Making	3000	220	2	15600	10800	60000	20	5.50
LPDC		250	2	15600	13200	57600	19.2	6.51
Decorating		40	1	15600	5400	65400	21.8	1.83
Riser Cutting		20	1	15600	5400	65400	21.8	0.92
Fettling		100	1	15600	1200	69600	23.2	4.31
Heat Treatment		10800	350	3000	3600	79800	26.6	1.16
Visual Inspection		60	1	15600	3600	67200	22.4	2.68

Significance of Capacity Planning -

1. Buyer & supplier relation –

“Trust on each other” is the key to achieve success in the Business. Buyer Supplier relation is getting spoiled due to non-transparent activities and unethical behaviour. In capacity review process, customer gives the clarity about annual peak requirement and against of these peak requirements supplier confirms the availability or allotted capacity. Capacity confirmation is the process in which supplier calculate the overall customer demands and allocate the resources to fulfil customer requirements. If there is any gap between customer requirement and available capacity, then supplier confirm his proactive capacity expansion plan to maintain interest of customers.

2. SWOT analysis –

Capacity planning always effective to maximise the utilization of their available resources. Capacity planning finds out the bottleneck, elimination of this bottleneck provides scope to increase available capacity. Available spare capacity attracts new business & increase customer confidence.

SWOT analysis is strategic planning techniques, which recognise strength and weakness of organization process. SWOT analysis also diagnoses current problems and to sketch future action lines.

3. Control on variable cost –

Overbooking of capacity or no provision for contingencies are always created eleventh hour rush and increase stress on concern resources. Insufficient capacity increases labour overtime and handling costs. To avoid on time delivery failure, delivery required to be send by fastest transport mode and minimum lot size. All cumulative results increase in transportation and manpower cost.

4. Bottleneck identification –

A **bottleneck** is a process in the chain of processes, such that its limited capacity reduces the capacity of the whole chain. Drawback of having bottlenecked and capacity constrains means increasing work in process inventory, pressure from customer and reduce employee morale. Capacity review finds out the bottleneck process and defines the ability of production. Bottleneck identification always do support for capacity expansion decisions. Bottleneck process is constrained for achieving increase customer demands. Proactive bottleneck eliminations and

advance capacity preparation for forecasted demands are always helpful for catching new business opportunities.

Conclusion –

Buyer – Seller relationship is one of important factor to achieve highest level of success at both manufacturer & supplier end. Proactive sharing of business plan with supplier & coordination for the capacity preparations are always beneficial to avoid eleventh hour rush & hand to mouth situation. Manufacturing business plan provide guideline to supplier in Capacity expansion budget or Capex preparation process.

Capacity verification process creates the confidence at manufacturing end & also beneficial for supplier to do focus on achieving their defined process efficiency.

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**DATA MINING USING HADOOP DISTRIUTED FILE SYSTEM
(HDFS) FOR E-COMMERCE MARKETING STRATEGY**

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ABSTRACT

E-Commerce plays vital role to theorize this concept. One area that has been profoundly affected by the internet revolution is e-commerce. The function of e-commerce is referred to as e-business, and the terms are once in a while used interchangeably. E-Commerce removes physical availability as well as location barriers also. In e-commerce there is often huge sending statements to the credit card holder through the post, in this scenario speculate the cost of the paper, postage and staff etc, on the other hand sending it online will provide both time and cost effectiveness. E-Commerce offers higher customer satisfaction than the traditional methods of doing the business. There is better chance of flexibility, availability and faster response times with online support. Mining information from Web data can help in personalizing the browsing experience of a user by dynamically tailoring the look, feel, and content of a website to the user's needs and interests. After a careful study of existing algorithms used for data mining through the research the researcher proposes efficient algorithms for mining multilevel association run the show, which searches for fascinating relationship among things in a given data set at various levels in a successful way. This will be helpful for the business specially the e-business.

Data mining technology has emerged as methods for recognizing patterns and trends from huge amounts of data. Mining includes many algorithms like Association Rule, Classification and Sequence Detection. Occasionally, every one of these algorithms have been developed inside a brought together model, with all data being assembled into a focal site, and algorithms being keep running against that data. Security concerns can keep this approach there may not be a focal site with authority to see every one of the data.

E-Commerce offers higher customer satisfaction than the traditional methods of doing the business. There is better chance of flexibility, availability and faster

response times with online support. Mining information from Web data can help in personalizing the browsing experience of a user by dynamically tailoring the look, feel, and content of a website to the user's needs and interests. Data mining ideas and strategies can be connected in different fields similar to marketing, medicine, real estate, and customer association management, and engineering, web mining and so forth. Data mining (DM) has as its main goal; the generation of non-obvious however useful info for conclusion makers from very huge Data mining functions take in clustering, classification, prediction, and link analysis (associations). With these techniques many kinds of knowledge can be discovered such as association rules, classifications and clustering.

Keywords : *Data Mining, HDFS, Hadoop Distributed File System, E-business.*

Introduction

Data mining ideas and strategies can be connected in different fields similar to marketing, medicine, real estate, and customer association management, and engineering, web mining and so forth. Data mining (DM) has as its main goal; the generation of non-obvious however useful info for conclusion makers from very huge Data mining functions take in clustering, classification, prediction, and link analysis (associations). With these techniques many kinds of knowledge can be discovered such as association rules, classifications and clustering. One of the most vital data mining applications is that of mining association rules to generate the knowledge which will help to the top level management or stakeholders to take an effective decision in the business organizations. This will definitely enhance the E-commerce in all extent. After a careful study of existing algorithms used for data mining through the research the researcher proposes efficient algorithms for mining multilevel association run the show, which searches for fascinating relationship among things in a given data set at various levels in a successful way. This will be helpful for the business specially the e-commerce. Various existing data mining techniques are produced displayed to infer association rule and frequently happening item sets, yet with the quick entry of time of big data customary data mining algorithm have not been able to meet huge datasets analysis requirements. There is need to improve performance and accuracy of parallel processing with minimizing execution time complexity. Also assuring the output of a computation is insensitive to changes in any one personal record. So that it will

restricting privacy leaks from results. Hence, there is need to provide better frequent item set mining approach using Cloud computing with privacy Preservation techniques. A standout amongst the most essential data mining applications is that of mining association rules to generate the knowledge which will help to the top level management or stakeholders to take an effective decision in the business organizations. This will definitely enhance the E-commerce in all extent.

After a careful study of existing algorithms used for data mining through the research the researcher proposes an efficient algorithm for mining multilevel association rule, which looks for intriguing relationship among items in a given data set at various levels in a compelling way. This will be helpful for the business specially the e-business.

In this modern era datasets are excessively large so only sequential algorithms are not able to compute large database and they failed to analyze data accurately and also they suffer from performance degradation. To solve this problem, a new parallel frequent item sets mining algorithm. This mechanism improves the capacity of storage and computation of problem.

Why is the particular topic chosen?

Data mining is used in wide range of application areas such as decision support, web usage mining, bioinformatics, etc. If the data is sensitive (e.g. web browsing history, medical records), releasing the discovered frequent item sets might pose considerable threats to individual privacy. Frequent item set mining (FIM) is one of the most fundamental problems in data mining. In this paper, we explore the possibility of designing a differentially private FIM algorithm which can not only achieve high data utility and a high degree of privacy, but also offer high time efficiency. To this end, we propose a differentially private FIM algorithm based on the FP-growth algorithm, which is referred to as PFP-growth. The PFP-growth algorithm consists of a preprocessing phase and a mining phase.

Existing System

FP Tree Approach

Some authors introduces FP growth tree base approach, which having a different phases. In the First phase the frequent item sets are obtained from the database D under the threshold value T. The first phase consists of two mapreduce tasks. The database D is divided into small chunks using a procedure called as the input split. These chunks are sent to the mapper and the reducer to obtain the support count values. Using the

support count value and based on the minimum support count the frequent list is formed. The frequent list formed is divided into groups. The group list formed is sent to the mapper and the reducer to form the local FP-trees. From the local FP-trees the local frequent item sets are extracted. The local frequent item sets are integrated to obtain the frequent item sets of the database D.

Propose System

In this proposed work system focus on parallel frequent item set mining called FiDooP, it suggests parallel frequent item sets mining algorithm which is implemented by using distributed programming model. This eliminates the disadvantages of existing system and allows automatic parallelization, balancing the load of large database, and effective distribution of given data. Proposed system is using a Modified Apriori algorithm to overcome the issues of base Apriori as well FP growth algorithm. Modified algorithm reduces the time required to scan the transactions. It works faster even, the support count is less.

Literature Survey

JW. Han, J. Pei et al [1] the frequent pattern tree stores the compressed data in a broadened prefix tree structure. The frequent patterns are put away in a compressed shape. A FP-tree based mining technique known as the FP-growth is created. The proposed algorithm helps in mining the frequent item sets without the hopeful set age. Three methods were utilized to accomplish the effectiveness of mining:

1. An extensive database is changed over into a little data structure to dodge the rehashed database checks which is said to be exorbitant.
2. It embraces a pattern frequent growth strategy to abstain from producing substantial hopeful sets which is exorbitant.
3. The mining tasks are isolated into littler task which is exceptionally helpful in lessening the hunt space. The FP-tree based mining likewise has numerous examination issues like the SQL-based FP-tree structure with high versatility, mining frequent patterns with imperatives and utilizing FP-tree structure for mining successive patterns.

As per H. Li, Y et. Al. [2] parallel FP-growth algorithm the mining task is isolated into various parcels. Every one of the segments is given to the diverse machines and each parcel is registered freely. To conquer the difficulties faced by the FP-growth algorithm like the capacity, dispersion of calculation and exceedingly costly calculation parallel FP-growth algorithm is proposed. The PFP algorithm comprises of five stages. In the

initial step, the database is separated into little parts. In the second step the Mapper and the reducer are utilized to do the parallel counting. In the third step the frequent items are gathered. In the Fourth step the FP-tree is developed and the frequent item sets are mined. In the fifth step the neighborhood frequent item sets are totaled. The PFP algorithm is powerful in mining tag-tag associations and Web Page-Web Page associations which are utilized as a part of question suggestion or some other inquiry.

Removing frequent item sets from the huge database the creators showed an issue. In this paper the creators have exhibited an issue of separating the frequent items from extensive number of database. The creators discovered rules that have least value-based support besides least confidence. They have projected an calculation that deliberately assesses the thing sets for one pass. Similarly it will change between the quantity of disregards information and thing sets that are estimated in a pass. This count uses pruning framework for maintaining a strategic distance from certain thing sets. Points of interest of this calculation are that it utilizes support administration system which are not appropriate in the memory in one pass thus will move to next pass. Likewise there is no repetition [1].

This is an upgraded method to measure performance of Apriori like algorithm into MapReduce. MapReduce is the approach which is used for parallel mining of large size data in either homogeneous or heterogeneous groups. MapReduce distributes the excessive data between map and reduce functions and it allows total utilization of resources compared to existing systems. Therefore nowadays MapReduce is the popular technique for parallel mining. By taking benefit of MapReduce the authors have suggested three algorithms that are SPC, FPC, and DPC. In these algorithms they have used Apriori algorithm with MapReduce function. DPC algorithm accepts the different lengths of data dynamically, which is advantage of this algorithm. DPC shows great performance compared to other two algorithms that are SPC and FPC. Thus these three algorithms demonstrate that these calculations scale up straightly with dataset sizes.

According to Zhigang Zhang et.al. [3] The vertical format algorithm the frequent patterns are mined utilizing the algorithm Eclat. The algorithms for mining frequent patterns in flat format databases are not the same as the algorithms for mining vertical databases like the Eclat. A parallel algorithm MREclat which utilizes a map reduce system has been proposed to get the frequent item sets from the enormous datasets. Algorithm MREclat comprises of three stages. In the underlying advance, all frequent

2-item sets and their tid records are gotten from exchange database. The second step is the adjusted gathering step, where frequent 1-item sets are parceled into gatherings. The third step is the parallel mining step, where the data got in the initial step is redistributed to various computing nodes. Every hub runs an enhanced Eclat to mine frequent item sets. At last, MREclat gathers all the yield from each computing hub and arrangements the last outcome. MREclat utilizes the enhanced Eclat to process data with a similar prefix. It has been demonstrated that MREclat has high scalability and great speedup proportion.

Frequent item set mining is a critical part [12] in association rules and different other fundamental data mining applications. Be that as it may, tragically as dataset gets greater well ordered, mining algorithms neglected to deal with such unnecessary databases. The creators have proposed an adjusted parallel FP-Growth algorithm BFPF [3], an expansion of PFP algorithm [1]. FP-growth is utilized with the MapReduce worldview called as Parallel FP-growth algorithm. BFPF is accustomed to balancing the load in PFP, which upgrades parallelization and naturally this component improves execution. BFPF gives more noteworthy execution by utilizing PFPs grouping system. BFPF parallelizes the huge load with well-balanced algorithm [3].

FIUT is another strategy for mining frequent item sets. It is extremely productive strategy for FIM (frequent item set mining) named as FIUT (Frequent Item set Ultra metric Trees) [4]. It encloses two primary stages of scans of database. In the first stage it calculates the support count for all item sets in a large database. In the second stage it relates prune method & give merely frequent item sets. In the intervening time frequent one item sets are premeditated, phase two will assemble small ultra metric trees. These results will be displayed in small ultra metric trees. Benefit of FIUT is that it expels K-FIU tree speedily. FIUT has four fundamental points of interest. First, it decreases I/O overhead by examining the databases just twice. Second, decreases the searching space. Third, FIUT gives frequent item sets as yield for every expansive number of processing. So user can get just frequent item sets by using this new strategy for FIUT as each leaf provides frequent item sets for each datum trade inside the cluster [4].

It [4] uses an extended Map-Reduce Framework. A number of sub files are obtained by splitting the mass data file. The bitmap computation is performed on each sub file to acquire the frequent patterns. The frequent pattern of the general mass data file is acquired by incorporating the results of all sub files. A statistical analysis method is used to prune the insignificant patterns when processing each sub file. It has been

demonstrated that the strategy is scalable and effective in mining frequent patterns in big data.

Xinhao Zhou and Yong feng Huang have proposed An Improved Parallel Association Rules Algorithm Based on Map Reduce Framework for Big Data in [5]. The proposed algorithm is contrasted and the existing conventional Apriori algorithm. The timemany-sided quality of both the algorithms has been used to think about the execution of the algorithms. It has been demonstrated that the proposed algorithm is more productive contrasted with the conventional algorithm.

According to Jinggui Liao et. Al. [6] is a parallel algorithm which is executed using the Hadoop stage. The MRPrePost is an enhanced Pre-Post algorithm which uses the map reduce structure. The MRPrePost algorithm is used to discover the association rules by mining the substantial datasets. The MRPrePost algorithm has three steps. In the first step the database is isolated into the data blocks called the shards which are distributed to every specialist hub. In the second step the FP-tree is constructed. In the last step the FP-tree is mined to acquire the frequent item sets. Test results have demonstrated that the MRPrePost algorithm is the fastest.

In [7] Large datasets are mined using the Map reduce system in the proposed algorithm. Big FIM algorithm is altered to get the ClustBig FIM algorithm. ClustBig FIM algorithm provides scalability and speed which are used to get useful data from substantial datasets. The useful data can be used to settle on better decisions in the business action. The proposed ClustBig FIM algorithm has four fundamental steps. In the first step the proposed algorithm uses K-means algorithm to produce the clusters. In the second step the frequent item sets are mined from the clusters. By constructing the prefix tree the worldwide TID list are acquired. The sub trees of the prefix tree are mined to get the frequent item sets. The proposed ClustBig FIM algorithm is ended up being more productive contrasted with the Big FIM algorithm.

In [8] this paper tackles the issues of finding the unprecedented and weighted thing sets. The occasional thing set mining issue is finding thing sets whose repeat of the information is not exactly or equal to most outrageous edge. This paper reviews different system for mining occasional thing set. Finally, relative strategy for each procedure is introduced. Information Mining is described as Extraction fascinating examples or gaining from tremendous measure of information". Information digging is the framework for finding information from different perspectives and outlining into helpful information. Finding of common examples concealed in a database has a key

impact in a few information mining errand. There are two anticipate sorts of models in information mining.

Proposed System Architecture

In the proposed framework initially characterize the issue of FIUT approach with conventional framework; at that point locate the new framework that can work with map reduce in enormous information condition. The beneath figure 1 demonstrate the general technique of our framework.

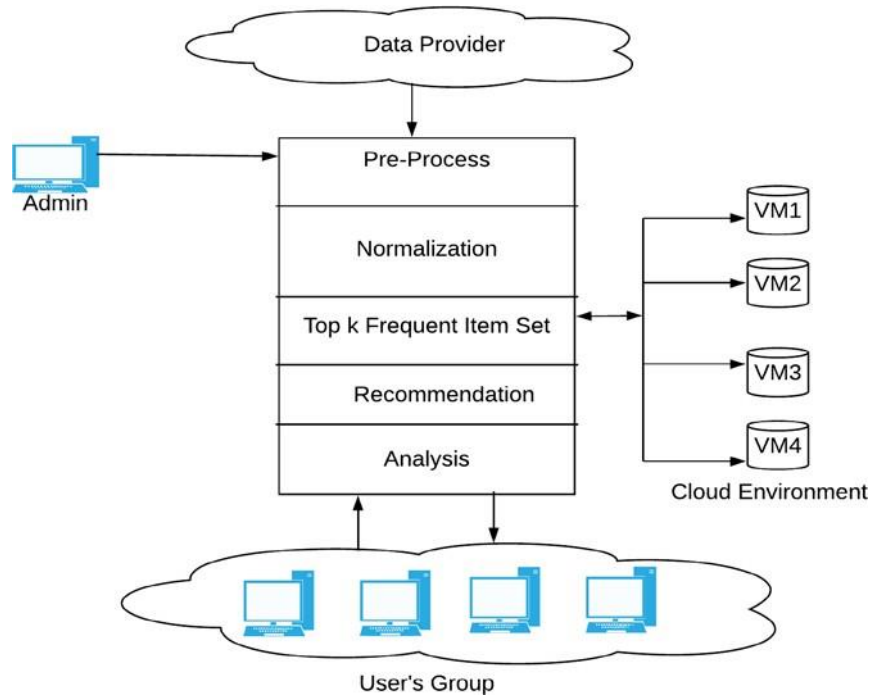


Figure 1: Proposed System architecture

In Proposed System another information dividing strategy to well adjust registering load among the group hubs; we create Fidoop-HD, an augmentation of Fidoop, to address the issues of high-dimensional information preparing.

Goals and Objectives

Goals

1. Subset selection to achieve fast retrieval.
2. Compressed storage and load balancing is achieved by calculating T-relevance.
3. Compute F-correlation and construct a Minimum Spanning Tree to improve speed and accuracy.
4. Efficiency and effectiveness of fast clustering algorithm are evaluated.
5. Improving energy efficiency of Fidoop running on Hadoop clusters.

Objectives

1. To create page comprising of huge databases which should be considered for information mining?
2. To check the databases introduce for any malevolent substance and if any observed expected consideration regarding be given to that particular database.
3. To create DM system utilizing half and half calculation which depends on altered Apriori for visit item set mining utilizing protection strategies on high dimensional information?
4. This system additionally works with heterogeneous bunch hub and we likewise give vitality utilization techniques base on ad-hoc use of information hub.
5. We actualize a warm administration approach on information hub, similar to load adjusting and pick particular information hub which having least temperature.
6. To think about working of DM system on customary PC and in cloud structure.
7. To give protection and security to databases and DM system.
8. To give appropriately mined information to customer in graphical portrayal.

Research Methodology

A popular formulation of the problem for mining transaction databases is via the term itemset. From this viewpoint, a transaction database is a series of tuples, each of which includes an itemset, and discovering frequent itemsets in the transaction database is considered a key phase in pattern mining. In this paper, we consider the term item sequence rather than itemset. In short, an item sequence is an ordered list of items. A System Overview in the proposed research work we have to implement privacy and noisy data mining view, where each transaction contains a set of items, frequent itemset mining tries to find that occur more frequently than a given threshold. Whereas differential privacy assures that the output of a computation is insensitive to changes in records and restricting privacy leaks through results.

Proposed system aim at sanitizing the original database in order to achieve the following goals,

1. No rule that is considered as sensitive from the owner's perspective and can be mined from the original database at pre-specified thresholds of confidence and support can be also revealed from the sanitized database, when this database is mined at the same or at higher thresholds.
2. All the non-sensitive rules that appear when mining the original database at pre-

specified thresholds of confidence and support can be successfully mined from the sanitized database at the same thresholds or higher.

3. No rule that was not derived from the original database when the database was mined at pre-specified thresholds of confidence and support can be derived from its sanitized counterpart when it is mined at the same or at higher thresholds.

The first goal requires that all the sensitive rules disappear from the sanitized database, when the database is mined under the same or higher levels of support and confidence as the original database.

The second goal states that there should be no lost rules in the sanitized database. That is, all the non-sensitive rules that were mined from the original database should also be mined from its sanitized counterpart at the same or higher levels of confidence and support.

The third goal states that no false rules also known as ghost rules should be produced when the sanitized database is mined at the same or higher levels of confidence and support. A false (ghost) rule is an association rule that was not among the rules mined from the original database.

A solution that addresses all these three goals is called exact. Exact hiding solutions that cause the least possible modification to the original database are called ideal or optimal. Non-exact but feasible solutions are called approximate.

The privacy preserving association rule mining algorithms should,

1. Prevent the discovery of sensitive information.
2. Not compromise the access and the use of non-sensitive data.
3. Be usable on large amounts of data.
4. Not have an exponential computational complexity.

Association rule hiding has been widely researched along two principal directions. The first variant includes approaches that aim at hiding specific association rules among those mined from the original database. The second variant includes approaches that hides specific frequent itemsets from those frequent itemset found by mining original database. By ensuring that the itemsets that lead to the generation of a sensitive rule become insignificant in the disclosed database, the data owner can be certain that his or her sensitive knowledge is adequately protected from untrusted third parties.

The common approaches used in association rule hiding algorithms are, Heuristic approaches, Border-based approaches and exact approaches. The Heuristic approaches are used to modify the selected transactions from the database for hiding the sensitive

data. The Border-based approaches is the sensitive rule hiding can be done through the modification of the original borders in the lattice of the frequent and the infrequent patterns in the data set. The Exact approaches are non-heuristic algorithms which envisage the hiding process as a constraint satisfaction problem that may be solved using integer programming or linear programming. Hiding the sensitive association rules by hiding their generating itemsets is a common strategy adopted by the majority of researcher.

Hardware components and software components.

A] System requirements:

1. System interfaces: Windows 7,8,10 Operating System

2. User interfaces: User interface using Jsp and Servlet

3. Hardware interfaces

Processor :- Intel R-Core i3 2.7 or above

Memory :- 4GB or above

Other peripheral: - Printer

Hard Disk :- 500 GB

4. Software interfaces:

Front End: Jdk 1.6.0,Netbeans 7.3 or Eclipse.

IE 6.0/above

Back-End: Cloud database.

5. Communications interfaces

System will use TCP/IP protocol for establishing connection and transmitting data over the network.

Results and Discussion

We utilized engineered information take after-market crate information with short continuous examples. The other two datasets are genuine information (Mushroom and Connect-4 information) which are thick in long regular examples. These informational collections were regularly utilized as a part of the past investigation of affiliation rules mining and were downloaded from <http://miles.cnuce.cnr.it/palmeri/datam/DCI/datasets.php> and <http://jbtraders.in> for synthesis as well as real time dataset.

Conclusion

To beat the issues which are available in existing frameworks like parallel mining and load adjusting calculations for visit itemsets. It builds up a calculation which is competent to do parallel digging for visit itemsets, called Fidoop. Fidoop is maintaining a strategic distance from the FP tress technique and it is utilizing the incessant things ultrametric tree or FIU-tree. So it accomplishes packed capacity and furthermore stays away from the example base conditions. Parallel mining and load adjusting of successive itemsets is finished by these three phases.

Future Work

For future enhancement we can focus on parallel mining with distributed hadoop environment using slot configuration. The runtime slot allocation and ordering can maximized the resource utilization and improve the system accuracy.

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**ACQUIRING CROSS-CULTURAL COMPETENCE AS A SKILL
FOR GLOBAL SUCCESS**

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ABSTRACT:

The success of organisations is essentially determined by a competent and committed workforce. Of these, while the definition of commitment remains unchanged, the competencies required, in the workforce, by an organisation, change with changing expectations and many other factors that often lie beyond the control of both the individual and the organisation. In this context, the leaders, within the organisation, need to remain aware of these changing requirements and do what it takes to train their workforce to remain relevant and competent.

Currently, a primary one among these skills is cross-cultural competence, given today's context of globalisation and diversity. Failures and losses encountered by some of the top businesses, post the turn of the century, have been attributed to this failure, to function effectively in a multicultural space. The flip side is true too, with some of the most successful organisations attributing their success, to their ability to harness this diversified workforce.

*The situation and problematic of India are slightly complex, in this regard. While we have an advantage, being a multicultural nation; do we really **KNOW** the diverse cultures or are we merely aware that they exist? Careful introspection would show us that very often it is the latter. Add to this the fact that, post globalisation, we are increasingly exposed, for personal and professional reasons, to people from diverse nationalities and we can imagine the magnitude of the problem.*

This research paper would examine the need for, the challenges and areas in and the method of developing cross-cultural competence, as a skill for global and local success.

Keywords: *cross-cultural competence, diversity, globalisation, personal and professional success, skill development*

Acquiring Cross-Cultural Competence as a Skill for Future Global Success

Tolerance, inter-cultural dialogue and respect for diversity are more essential than ever, in a world where people are becoming more and more interconnected.

- Kofi Annan

Introduction

Post globalisation and the opening up of borders, the working environment and expectations have undergone a major metamorphosis. From limited pan India and national organisations, both the companies and the workforce have developed global aspirations. The change, though welcome, has however birthed its own set of problems - a primary one being the 'global' aspect getting added to expectations, in the context of skills, which anyway underwent changing expectations with one's profession, as also the changing times. Let us take a simple example – with the popularisation of technology, for one, the workforce needed to develop skills in using it, to facilitate work; those who failed to do so soon got left behind. Add to this, expectations that have come from having to function in a global context, balanced with global aspirations that individuals have and one can only understand the magnitude of the problem. A case in point can be that of Umbro the UK sports manufacturer, which had to withdraw its new trainers (sneakers) called Zyklon, in 2002. The firm received complaints from many organisations and individuals, as it was the name of the gas used by the Nazi regime, to murder millions of Jews, in concentration camps, resulting in a huge financial loss, as can be imagined. Individuals and companies thus need to build this skill, to survive or flourish in the global context; failure to do so can have serious consequences.

Yet, not all companies have realised the importance of this competence and most fumble their way through it. Some however, like HSBC and SAP, have taken it extremely seriously, as can be seen through even the ads of HSBC that promote this competence, by illustrating the challenges that can occur, in its absence. So too, a representation from 130 countries in SAP's workforce, as also the creation of a special post of Chief Diversity and Inclusion stand testimony to the value of this competence for them.

Ironically, in India, we tend to take cultural diversity for granted, given the heterogeneity in our population, on a number of parameters. However, being aware of and knowing about and being able to deal with the diverse cultures, we are exposed to, is an altogether different proposition. Cases in point, like a famous media person posting a social media message, wishing people 'Happy Good Friday' and receiving a

heavy backlash, in fact show us how we can create problems for ourselves and others, by lacking in cross-cultural competence, either due to ignorance or arrogance - a taking for granted.

It is in this context that consciously striving to acquire this skill, whether for personal or professional success, especially in today's context, becomes necessary.

Definition

Against this backdrop, it is important to understand what constitutes cross-cultural competence. It can be defined as 'a set of culture traits – general knowledge, skills, abilities and attributes (KSAAAs), developed through education, training and experience that provide the ability to operate effectively, within any culturally complex environment'. This definition goes on to draw our attention to its 4 important aspects, as also the fact that they can be **acquired**, i.e. one is not born with them and that they facilitate effective functioning, in a complex cultural environment, which we are today, without doubt, a part of. Furthermore, the traits that comprise cross-cultural competence encompass two aspects - the external and internal. The external being knowledge and skills that can be acquired, through reading and training, and the internal that is the ability and attributes that a person needs to be capable of. While we will discuss aspects at the former later, let us briefly consider the abilities and attributes here.

Despite acquiring knowledge or receiving training in cross-cultural competence, each person does not reach or display the same level of competence. This is because of the individual's ability and attributes. For one, a person who has more chances of exposure and is more adaptable/flexible, is likely to develop a greater level of competence. To illustrate this further, one can take an example of someone travelling abroad, for work or pleasure – a person with strong abilities and attributes would be able to eat the local cuisine (including a half formed chick, if required) without batting an eyelid, while those completely lacking in the competence would try to replicate the experience of what they are used to, wherever they travel, as can be seen in individuals and groups, who go abroad for a holiday, only with agencies, which offer a cuisine they are used to!

Obstacles

While there is no denying the importance of this competence, it is not one that is pervasive. While there are many reasons for this, the primary ones are:

i. Lack of awareness:

Both due to absence of widespread data in this area and the general approach that individuals/companies have to skills, the area of cross-cultural competence is largely ignored. Except for a few stray seminars and trainers on this issue and very few books, most of them foreign, not many companies or individuals are aware of this competence and its importance, as well as applicability. Most of them realise its value, only after suffering a major setback or losses, as can be seen through the example mentioned earlier, as also the experiences of Hindustan Unilever Ltd., Atul Products Ltd. and Burger King (to mention a few), in the context of their product and advertisements.

Furthermore, most individuals and companies take skill and competence building very lightly. They believe that only their technical skill/knowledge is enough to ensure their success!

ii. Stereotyping:

Given human nature, one tends to generalise about others, based on a numerous factors. This results in approaching another culture with blinkers or rose tinted glasses that can filter experiences. This stereotyping may be based on hearsay or one's past experiences. What people fail to realise is that culture is dynamic and changing and its manifestations are influenced by numerous factors. Reliance on stereotypes can have a disastrous set of consequences, from 'culture shock' to an unwillingness to be exposed to, see or accept the reality.

iii. Rigid approach:

Often individuals and companies have a rigid approach to what is beyond their scope of knowledge and comfort. They thus prepare themselves, to deal with an international context, based on the available training, reading and checklists of dos and don'ts, without remaining attuned to the changing realities of a place or the issues that may crop up within them. This can result in suffering from shock and resentment, when things do not go as per what is planned or what one believes one can expect.

Areas of cross-cultural competence

Unfortunately, what most don't realise is that cross-cultural competence needs to be displayed in varied areas. Absence of knowledge of these areas can lower one's guard or result in one stumbling in the dark, in varied professional and personal situations. It

is in this context that one needs to gain at least a basic understanding of the significant areas, where the approach of cultures differs significantly:

i. Approach to time:

Time is looked upon very differently, by different cultures; both in the context of punctuality and also the manner in which people belonging to a culture interpret it. To take a simple example, many countries, like Germany and Japan, place a lot of emphasis on punctuality; while we in Indian often consider IST as Indian Stretchable Time. In fact, in Japan, it is considered rude to even reach early, for a meeting; whereas, in India, the time specified largely serves as an indicator than an absolute, and for most it has become a habit to be 'fashionably late', to assert their importance! So too, some cultures are fatalistic as regards time and consider it an exhaustible source, while others consider it an equalising resource and still others are afraid of its exhaustibility and quick passage. Finally, daylight saving as an aspect of time is a concept that is extremely unfamiliar to the Eastern nations – a fact that had got students of an international hostel in London into great trouble, as they missed their breakfast, not having read the notice on daylight saving displayed at the reception area the previous day.

ii. Communication:

Including greeting, language, conversation and nonverbal communication, communication forms the core of any impression and relationship, whether in the personal or professional space and thus becomes an important facet of cross-cultural competence. The manner of greeting and whether or not one greets another are both an important part of interaction. While, in some countries, it is a habit to greet even strangers, in others it is looked upon with suspicion or amusement! In fact, when this scholar first visited Germany, when in her twenties, she would often wonder whether she had met the person before, when a random stranger greeted her. Only then did she identify it as a cultural trait! Add to this the word used for greeting another (like hello, good morning, namaste, etc.) whether in oral or written communication and the accompanying body language (bowing, joining hands, shaking hands, nodding, embracing, etc.) and one can imagine the chaos and scope for misunderstanding. Additionally, nonverbal cultural differentiation would also cover areas of silence, facial expressions, signs and symbols, eye contact and dressing and the magnitude of difference can be perceived, in varied situations. Finally, knowledge of a language, as also the vocabulary, where the same word can

mean different things, in different languages (like 'paal' meaning lizard in Marathi and milk in Tamil) and the acceptable topics of conversation can be major areas of diversity. For example, while it is fine to ask even a person one has met for the first time personal questions, in the Indian subcontinent, in many countries it would be considered impolite and an affront to privacy.

iii. Negotiations:

The pace, manner, place and time of negotiations varies considerably across cultures. While Europeans and Americans like to push the pace, considering time money, Asians prefer establishing relationships and building trust, as foundations for negotiations. This and other things like holding a negotiation deal near a water front, which reminds the other party of home, have been responsible for making or breaking deals!

iv. Values:

Comprising both personal and professional values, this area constitutes the core of identity and culture. Honesty, respect, nepotism, the love for truth, whether at the personal or professional level, can create a great deal of distance between people. Simple values, like how one likes the truth to be told - directly or indirectly - can affect professional relationships. A case in point is point-blank or naked feedback versus one that is sugar-coated.

v. Culture:

A broad area, culture includes cultural systems, like gifting and accepting invitations and presents, understanding of and the manner of displaying hospitality and approach to and issues related to health. What one can gift, to whom and when can result in a great deal of embarrassment and has been known to break deals. Gifts, like ganesh idols, given as decorative sculptures have been fawned upon, by people in some countries and returned by people in others, countries which do not believe in idol worship. So too, where one invites a colleague/acquaintance – at home or in a hotel – and whether or not one should accept the invitation or turn it down, as also whether one is expected to contribute for what one consumes, in a party, that one is invited to, or would the host be footing the bill - all vary greatly across cultures. One is also aware of the levels of obesity or obsession with slimness in different cultures and would have heard of diseases, like the Ebola virus, for example, that are country specific; as a result of which medical practitioners, from a different place, would find it difficult to diagnose, let alone

treat it. So too, decorum during and approach to treatment can change vastly, right from whether a doctor can touch a patient from the opposite gender, to the amount of interaction a patient is allowed, while in a hospital. It is a well-known fact that patients are isolated in Western countries for faster recuperation; while, in the East, a patient is surrounded by family, for quicker relief, and may even prefer it!

vi. Religious beliefs and practices:

A great deal of distinctiveness can be seen in the context of different religions and their beliefs, practices and rituals, which have also been known to divide people. The divide that this can cause can run deeper than can be imagined, dissolving the commonality of being human, in bearing allegiance to a belief. As simple a thing as the colour white or black to be worn during mourning, wearing footwear or going unshod in places of worship, access to them or things like covering one's heads in religious places can become major issues.

vii. Eating habits:

Whether one eats with ones hands or uses cutlery, what one eats and how much, as also at what time, all constitute eating habits, which can be very close to people's hearts. The concept of 'jhootha ho gaya', for example, is a very Indian concept that cannot be really translated! Similarly, finding vegetarian food may, at times, become a very difficult task, in some countries, like China for example, where non-vegetarian food is a way of life. Moreover, the definition of non-vegetarian may also differ from place to place, with pork, snake, beef etc. not being acceptable to people from different communities, religions and cultures.

viii. Environment:

The weather changes within and across nations and can, at times, cause issues in logistics and transportation of goods, of which businesses would need to be aware, while operating in an international terrain. Further, countries have extremely varied approaches to the environment – with some worshipping it, while others consider it a resource for human consumption!

ix. Life:

The purpose of life and the various 'isms' in which one believes can be culturally determined and can go on to determining both the quality of and approach to life. Contrapuntally, these manifest in literature, philosophy and other arts that a culture births, becoming emblematic and representative of its life. From hedonism and

consumerism to varied other 'isms', we have witnessed the manifestations and promulgation of many, some as fads and the others as habits or beliefs.

Ways to develop cross-cultural competence

The cross-cultural competence displayed by an individual may vary in different situations, determined both by the exposure of the individual to the other culture, as also the nature and approach of the other culture, with all its nuances, whether that of inclusion or exclusion. Despite this, however, one can prepare oneself to the extent possible; to ensure both developing and demonstrating cross-cultural competence, when one is required to do so. Some of the simple ways of doing so are by:

i. Keeping an open mind and being flexible:

While dealing with another culture, one needs to suspend judgement and be open to experiences. One should be desirous of participating in diverse experiences, rather than feeling a sense of anxiety towards them. Further, one needs to be able to adapt oneself to the extent possible, rather than staying within one's comfort zone. Rather than comparing one's experiences with what one is familiar with or feeling distaste towards the unfamiliar, one needs to be adaptable.

ii. Training:

One can familiarise oneself in many ways, with another culture, to the extent possible, beforehand. This can be done through reading or undergoing training programmes that are held internally by some organisations or conducted by people, who specialise in the area.

iii. Observing:

However prepared one might consider oneself to be beforehand, or however diverse one's exposure, one needs to understand that no book or training can cover everything. Simple everyday habits, like the manner of crossing a road or eating, can prove to be challenging in an unfamiliar environment. In this context, it is best to be observant and learn on the go, as this often proves to be the easiest and best way to adapt.

iv. Asking:

In case one is unaware of habits, traditions or expectations of another culture, it is simpler and better to directly ask and seek clarification, rather than taking pot-shots. One can also ask if, while observing, one notices that things are not what they appear to be.

v. Apologising/showing the willingness to set things right:

In case one makes an inadvertent error, it is important to apologise, instead of attempting to make excuses. Thus rather than saying, “we do it this way”, it’s better to say, “I am sorry; I didn’t mean to offend; I was just not aware; I will be more careful in the future.” Also it is important, wherever possible, to at least offer to set things right.

This however does not mean, as stated earlier, that the cross-cultural competence displayed in varied situations will be the same. Nevertheless, it is important to note that individuals can be categorised under four heads, depending upon the KSAA they have, in the context of cross-cultural competence. These levels are – poor, average, moderate and high. The last of the categories would simply mean that the individual is both capable of and willing to display cross-cultural competence. It is important to realise the future belongs to them, whether is the context of personal happiness or professional success. In fact, as per research done by the Cultural Intelligence Center, East Lansing, Michigan

- i.** People with higher CQs (cultural quotients that are assessors of cross-cultural competence) are consistently more personally and professionally effective
- ii.** They have an edge in a crowded job market, enjoy greater personal satisfaction and less burnout in multicultural situations; and
- iii.** People with higher CQ help increase company revenue within 18 months by up to a 100%

Conclusion

While there is no denying that cultures vary vastly across, both spatial and temporal realities, it would be foolhardy, in today’s times, to decide to cross the bridge of cross-cultural competence, when one actually gets there. This is so because, as stated at the outset, it can have a range of consequences - from mere embarrassment to major financial and image losses. Consequently, given the realities, whether cultural, social, political or economic, of today’s times, a dynamic and forward-looking individual and/or organisation would work towards acquiring and displaying cross-cultural competence, in a conscious and consistent manner.

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**ATTRIBUTES OF CORPORATE IMAGE AND ITS INFLUENCE
ON CUSTOMER LOYALTY**

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ABSTRACT:

An increasing number of companies are aware that a favourable corporate image can provide a company with a distinctive and credible appeal. Companies can no longer rely on their products and services as a means of effective differentiation and added value. Developing a positive corporate image is regarded by many as a more effective form of differentiation and a source of competitive advantage. The present study put forward the outcome of the field research focuses mainly on corporate image and its effect on corporate loyalty. It is based on the survey conducted among General Practitioners (GP's) in the Jalgaon city. The study has revealed the important attributes for building corporate image in pharmaceutical industry. The finding of the study will explore an opportunity for pharmaceutical organisations to enhance their distinctiveness through linking unique and credible corporate characteristics to their products, thus enabling important synergies to be developed.

Keywords: *Corporate image, corporate loyalty, Pharmaceutical Company, General Practitioner*

1.0 Introduction:

The pharmaceutical industry is becoming increasingly complex and subject to a number of critical influences and this study investigates the attributes used by doctors to shape and determine the image they hold of drug manufacturers. There can be little doubt that doctors are an important target audience (direct customers) for pharmaceutical organisations and it is important for pharmaceutical companies to understand the key attributes used by doctors to form images of these companies. The widespread opinion is that a highly trusted corporate image has an advantage in influencing decision makers (Doctors). In the Indian pharmaceutical environment, it seems to be that pharmaceutical companies have not considered corporate image building exercises on the priority. It was observed that there is gap in literature in context of corporate image

and undertake research into these attributes seems appropriate and advantageous. Thus the present research study was undertaken to determine and rank the attributes currently used by prescribers and the study it would be beneficial to examine a part of the Indian pharmaceutical market and to consider prescribers' perceptions across those with similar training and cultural backgrounds.

2.0 Review of Literature

The branding concept has previously been dominated by a strong emphasis upon the product but there has been a shift in marketing emphasis from product brands to corporate branding as described by several authors (Aaker, 1996; Aaker and Joachimstahler, 2000; Balmer, 1995, 2001; de Chernatony, 1999; Dowling, 2001; Harris and de Chernatony, 2001; Ind, 1997; Kapferer, 1992; Keller, 2000; Knox et al., 2000; King, 1991; Olins, 2000; Hatch and Schultz, 2003; Schmitt and Simonsen, 1997). An increasing number of companies are aware that a favourable corporate image can provide a company with a distinctive and credible appeal (Worcester, 1986; Hall, 1993; Markwick & Fill, 1997; Greyser, 1999). Companies can no longer rely on their products and services as a means of effective differentiation and added value. This is due partly to the convergence of capabilities and standards of quality and partly due to the increasing requirements for accountability and transparency. Developing a positive corporate image is regarded by many as a more effective form of differentiation and a source of completion. The creation of a suitable image through identity management requires a substantial investment, in time, management effort and financial resources. The increasing attention given to corporate image is illustrated by the vast amounts of money now being spent by businesses in developing their corporate identities. Mergers or privatization are often the instigating factors for the new identities, but the advent of consumerism in the industry and other pressures mentioned earlier mean that pharmaceutical companies are using their identities more prominently to endorse their products. New audiences provide fresh opportunities for companies to promote their identity. Communicating with multiple audiences, however, also brings an increased risk of communicating inconsistent messages as different audiences need to receive different messages. Efficient identity (or reputation) management is essential to secure a uniform and consistent image. A fragmented image may not only damage reputation but could compromise the whole communication effort. The profound changes in the

industry have driven increased company interest in the perceptions held by key stakeholders and the value of a favourable corporate image.

Many pharmaceutical companies now also accept the importance of identifying the key attributes that are used by various stakeholder groups, to form an image of a company. The success of those companies will be based on their ability to formulate marketing communication strategies to communicate consistently and effectively with both existing and newly empowered customer and other stakeholders. As there is always some risk involved in the prescription and use of drugs, the manufacturer's name and drug creator can be an important risk reduction mechanism for a prescriber. It takes time to create a favourable image and good reputation in the minds of prescribers but, once established, it is generally accepted that it generates a form of competitive advantage. Needle (1964) found a strong correlation between a favourable company image and the prescribing of its products. Huston (1993) reported that in a study carried out by Scott-Levin Associates, 80 per cent of general practitioners stated they base their drug selection on their opinion of the manufacturer when choosing between similar brands. The study confirmed that a good image does translate into increased prescribing of a product. The survey reported by Huston was undertaken by Scott-Levin Associates, and involved 5,317 general practitioners and 16 other stakeholder groups, including pharmacists and consumers. This study was used as a framework in a smaller, yet more recent study of corporate image among general practitioners of pharmaceutical companies operating in Greece (Fill & Dimopoulous, 1999). In the light of the research undertaken in the USA and Greece, and the changing consumer and environmental conditions discussed earlier, to accomplish this it was necessary to investigate the images held by both general practitioners of pharmaceutical companies operating in the India

3.0 Objectives and Methodology of the Study

The main objective of the study is to identify the key attributes important to corporate image building and rank these according to the relevance and further examine its effect on customer loyalty with reference to pharmaceutical industry.

3.1 Research Approach

Due to the complexity of the branding issues and the aim to go behind the widespread political correctness characterizing the attitude of General Practitioner, descriptive research methods were chosen.

3.2 Data collection and sample characteristics:

The primary data is collected through the questionnaire. The initial contacts with the physicians were done by doing direct cold calling to their clinics or hospitals. The researcher has briefly explained the purpose of the research study and the subject to be covered, but tried not to go into any details, as it might influence the physician's perception. At the onset of the interview the premises and the purpose of the interview were outlined. Each discussion was lasted for approximately 15 to 20 minutes, and at the end of the personal interview, researcher has given the declaration letter for maintaining confidentiality of the information to the doctors. The Researcher has also utilized secondary data for building the field research study; various sources are used for collecting the data these are Centre for Monitoring Indian Economy (CMIE), Monthly index of Medical specialist (MIMS India), Express Pharma Magazine , Pharmabiz Portal , Bulletin of Pharmaceutical Manufacturers Association, Circulars of Food and Drug Administration, Also the books and periodicals referred from Library of different colleges and management institutes.

3.3 Research instrument and sample selection:

The research instrument used for the study was the questionnaire and it was designed on the basis of literature finding and inputs from practicing manager of the pharmaceutical industry.

In this study, the sampling unit was the General Practitioners practicing in the vicinity of Jalgaon city. The sample size was 100 doctors who are practicing the Jalgaon city. The sample representative of the population is selected as per the convenience sampling method.

3.4 Data Processing and analysis:

Data is processed with the help MS Excel, & MS Word, subsequently questionnaire was tabulated and written down by the researcher and the results were compared and merged. Data were analyzed by preparing response sheet and then by using statistical techniques like graphical analysis, measures of central tendency, measures of dispersion, correlation and regression analysis and ultimately studied the effects of dependable variables on independent variables.

4.0 Data Analysis:

The data analysis involved selecting the questions which are designed according to the objectives, thereafter study the appropriate question and by applying suitable statistical techniques like graphical analysis, measures of central tendency, measures of dispersion, correlation and regression analysis and exploring the result.

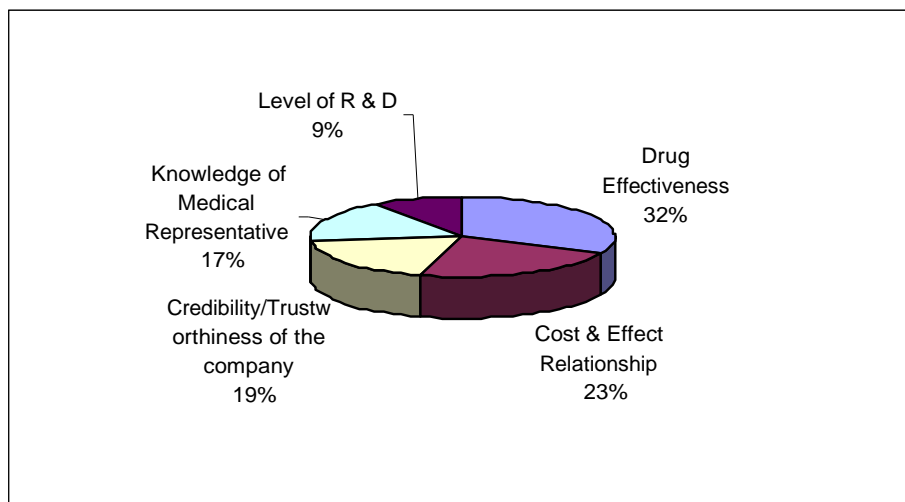
The prime objective of the research paper is studied through the questions. The response status for the specific question is as given below,

Table I- Importance of the attributes that create a favourable corporate image

Sr.No.	Details	Frequency	Percentage	Cum. Freq
1	Drug Effectiveness	475	31.67%	31.67%
2	Cost & Effect Relationship	340	22.67%	54.33%
3	Credibility/Trustworthiness of the company	283	18.87%	73.20%
4	Knowledge of Medical Representative	262	17.47%	90.67%
5	Level of R & D	140	9.33%	100.00%

Source: Survey Data

Exhibit I- Importance of the attributes that create a favourable corporate image



Source: Survey Data

Since one of the major contribution is from the two main factors viz., Drug effectiveness and cost & effect relationship, by taking them into consideration, let us defined the regression among the variables loyalty, Drug effectiveness and cost & effect relationship whereas loyalty is dependent variable and remaining both are independent.

Hence the details are

Let X1=Customer Loyalty

X2=Drug effectiveness

X3=Cost and effect relationship

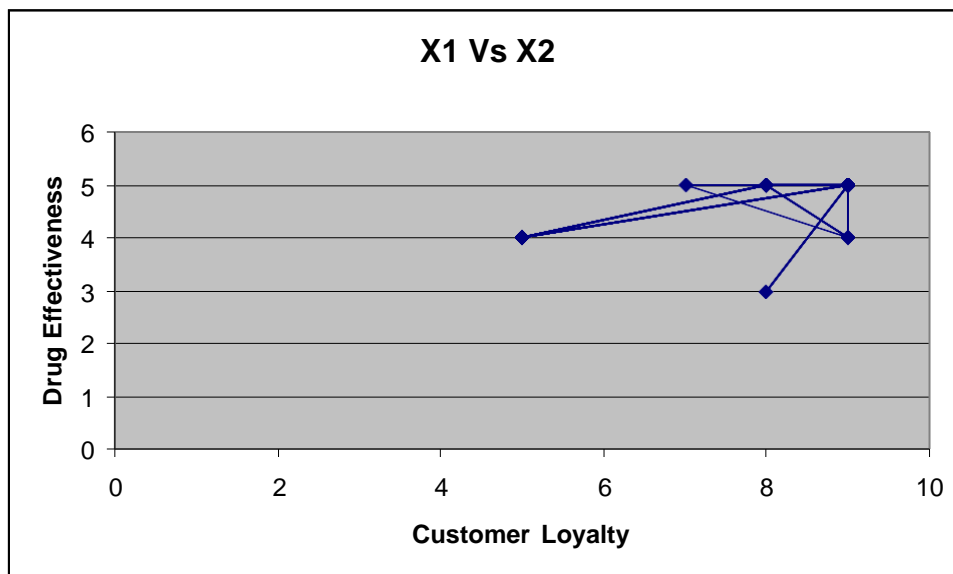
1) Relationship between Drug Effectiveness and Customer loyalty

Table II- Output

Method	Result (Output)
mean(x1)	8.15
mean(x2)	4.75
Std. dev(X1)	1.33
Std. dev(X2)	0.50
cov (X1,X2)	0.37
r12	0.55
b12	1.47

Here the regression line of X1 on X2 is given by,

Exhibit II- Regression line between Customer loyalty and Drug Effectiveness



$$X1 = (1.47 * X2) + 1.17$$

The above mentioned line of regression indicates the extent of linear relationship among the attribute 'drug effectiveness' and 'customer loyalty' with the help of pure mathematical and statistical approach. The physical significance of the above line which is obtained from sample is that, as the drug effectiveness is increased, customer loyalty is also increased in

the same proportionate as mentioned in the above line. Also it offers the scenario about impact or role played by the drug effectiveness on the ‘customer loyalty’. Basically it provides guidelines in order to obtain estimate of the customer loyalty if the calculated or an empirical values of ‘drug effectiveness’ are available in future as well for further study.

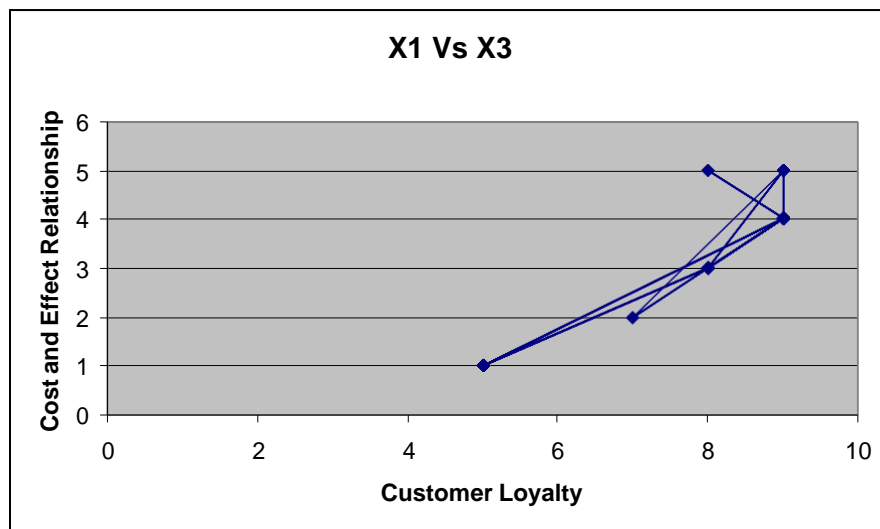
b) Relationship between Cost and effect relationship and Customer loyalty

Table III - Output

Method	Result (Output)
mean(x1)	8.15
mean(x2)	3.4
Std. dev(X1)	1.33
Std. dev(X2)	1.13
cov(X1,X2)	1.38
r12	0.92
b12	1.08

Here the regression line of X1 on X3 is given by,

Exhibit III - Regression line between Customer loyalty & Cost & Effect Relationship



$$X1 = (1.08 * X3) + 4.46$$

The above mentioned line of regression indicates the extent of linear relationship among the attribute ‘cost and effect relationship’ and ‘customer loyalty’ with the help of pure mathematical and statistical approach. The physical significance of the above line which is

obtained from sample is that, as the 'cost and effect relationship' is increased, 'customer loyalty' is also increased in the same proportionate as mentioned in the above line. Also it offers the scenario about impact or role played by the drug effectiveness on the customer loyalty.

5.0 Discussion and Results:

According to the respondents, "drug effectiveness" and "cost and effect relationship" are the most important attributes in creating corporate image of the pharmaceutical industry. As per the doctors, drug effectiveness, cost & effect relationship, trustworthiness of company and knowledge of Medical Representative are perceived to have positive impact on loyalty.

It is clear that, the attributes identified in the field research i.e. drug effectiveness dominates doctors' choice as a key corporate image attributes. The high rating of this response coincides with the doctors' desire to show objectivity and rationality in their choices. The level of importance that doctors give to this attribute is reflected in the number of them who mentioned it as their first choice. The next most important attribute in the formation of corporate image was revealed to be the relationship between the cost of a drug treatment and its relative effectiveness. This suggests that doctors are sensitive about medical costs, particularly as they are urged to prescribe under controlled measures. The third most important attribute is the Credibility/Trustworthiness which was relatively very less. Forth attributes is knowledge of Medical representative of the company and is the first attribute mentioned that is related to the marketing communications program of pharmaceutical companies.

The research and development that the company is known to undertake was ranked fifth in ability to influence the image. Information on R&D is usually communicated by companies constantly providing updates about existing drugs, the release of innovative products and through the provision of information through a variety of promotional tools, such as the sales force, sales leaflets, public relations, advertising, meetings and conferences.

6.0 Conclusions and managerial implications:

The corporate image is strategically important and the images formed, by doctors, of a pharmaceutical company are composed of a number of elements. The strength of the

company image held by this key influential audience appears to be directly related to perceived drug effectiveness but a number of other attributes also rank consistently high in the way doctors perceive these organisations. Indeed, it was suggested that drug effectiveness alone is not a sufficiently strong attribute upon which to build corporate image and reputation. Analysis of the strength of these perceptions has enabled a hierarchy of attributes to be determined.

The five most important attributes emerging are drug effectiveness, cost and effect relationship, credibility/trustworthiness of the company, knowledge of Medical Representative, level of R & D. It follows that pharmaceutical organisations should consider managing these attributes collectively and that they should be developed as an integrated set of corporate identity cues. The development of common thematic messages that reinforce a company's performance across these attributes appears attractive. A valid communication strategy might involve the company's achievements in R&D, benefit claims related to drug effectiveness and the strength and professionalism of a well-managed Medical representative force. Strong corporate images are more likely to be shaped from integrating these elements in a planned approach to corporate communications. Corporate images cannot be changed like products or product images, because they have to be based on coherence and consistency between a corporation's business foundation, its culture and its identity. To communicate this unique and distinct relationship should be the future focus of corporate communication department of pharmaceutical Industry.

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“A STUDY OF E-SUPPLY CHAIN MANAGEMENT: REVIEW, IMPLICATIONS AND DIRECTIONS FOR FUTURE RESEARCH”

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ABSTRACT

Purpose – This paper analyses the interaction of two topics: Supply Chain Management (SCM) and the Internet. Merging these two fields is a key area of concern for contemporary managers and researchers. They have realised that the Internet can enhance SCM by making real time information available and enabling collaboration between trading partners.

Design/methodology/approach – A literature review in prestigious academic journals in Operations Management and Logistics has been conducted for the period 1995-2005. The objective is to collect, organise and synthesise existing knowledge relating to SCM and the Internet.

Findings – Our study has described the impact that the Internet has on the different processes that SCM embrace. The literature review undertaken on the topic has shown that e-SCM has been acknowledged as an outstanding topic in the supply chain literature in the most prestigious Operations Management and Logistics journals, especially after year 2000. The main topics have been e-procurement, e-fulfilment and information flows.

Originality/value – The value of this paper is to define e-SCM, to analyse how research in this area has evolved during the period 1995-2005 and to identify some lines of further research.

Keywords – e-Supply Chain Management, Internet, e-SCM

1. Introduction

Enhanced competitiveness requires that companies ceaselessly integrate within a network of organisations. Firms ignoring this challenge are destined to fall behind their rivals. This integration of companies within a network has led to put more emphasis on

Supply Chain Management (SCM). “SCM is the management of upstream and downstream relationships in order to deliver superior customer value at less cost to the supply chain as a whole” (Christopher 1998). The integral value of the SCM philosophy is that “total performance of the entire supply chain is enhanced when we simultaneously optimise all the links in the chain as compared to the resulting total performance when each individual link is separately optimised (Burke and Vakkaria 2002).

In order to achieve this coordination/integration of all the links in the supply chain, information is critical. Recent technological developments in information systems and information technologies have the potential to facilitate this coordination, and this, in turn, allows the virtual integration of the entire supply chain. The focus of this integration in the context of Internet-enabled activities is generally referred to as e-SCM. Merging these two fields (SCM and the Internet) is a key area of concern for contemporary managers and researchers. Managers have realised that the Internet can enhance SCM decision making by providing real-time information and enabling collaboration between trading partners. Many companies have implemented point -of-sales scanners, which read, on real time, what is being sold. These companies do not only collect information on real-time to make decisions about what to order or how to replenish the stores; they also send this information, through the Internet, to their suppliers in order to make them able to synchronise their production to actual sales.

The recent proliferation of papers on SCM and the Internet related topics explain the increasing interest of researchers for this area. There is a growing stream of literature attempting to better understand the impact of the Internet on different SCM activities (planning, distribution, design, etc.). However, there is a disjointed scattering of research activity that fails to clearly represent what should be understood by e-SCM, what we currently know about the effects of the Internet on SCM and what we still need to learn.

Many researchers have examined the work done in the field of Operations Management and SCM, see for example (Prasad and Babbar 2000) and (Pannirselvam, Ferguson et al. 1999). Although this type of papers is very useful to give insights on research directions, we have found so far only two literature reviews on the e-SCM topic: (Johnson and Whang 2002) and (Gunasekaran and Ngai 2004). Our paper follows the same methodology as these two papers, but it differs from them in the framework used to classify the papers. (Johnson and Whang 2002) classified the papers into three

categories: e-commerce, e-procurement and e-collaboration. (Gunasekaran and Ngai 2004) classified the papers according to what they called the major components of IT-enabled SCM: strategic planning for IT in SCM, virtual enterprise and SCM, e-commerce and SCM, infrastructure for IT in SCM, Knowledge and IT management in SCM, and implementation of IT in SCM. The main objective in this paper is to identify the major issues surrounding the impact of the Internet on SCM, using a classification scheme and developing a framework based on the idea that SCM is the management of supply chain processes. As (Croom 2005) pointed out very recently, there is some debate about the scope of SCM. (Oliver and Webber 1992) and (Houlihan 1984) used the term SCM for the internal supply chain that integrates business functions involved in the flow of materials and information from inbound to outbound ends of the business (Harland 1996). (Ellram 1991) viewed SCM as an alternative to vertical integration. (Christopher 1998) defined SCM as the management of upstream and downstream relationships. (Croom 2005) suggested that one way of dealing with the diversity of SCM definitions is to concentrate on the core processes and functions relating to the management of supply chains (for example, fulfilment, operations planning and procurement). As he points out this is not an exhaustive approach but it can provide sufficient scope for an analysis of the key initiatives being undertaken by organisations in their SCM (Croom 2005).

In the literature there is a diversity of models suggesting which are the main supply chain processes. For example, in 1996 the Supply Chain Operations Reference (SCOR) model was developed with the aim of helping organisations to improve their supply chain efficiency. This model focuses on five key processes for supply chains: plan, source, make, deliver, and return. In 1997, (Cooper, Lambert et al. 1997) defined SCM taking into account the eight supply chain processes identified by the International Centre for Competitive Excellence (now named Global Supply Chain Forum): customer relationship management, customer service management, demand management, e-fulfilment, e-procurement, manufacturing flow management, product development and commercialisation, and reverse logistics. (Hewitt 1994) found that executives identify up to fourteen business processes. As a result, we decided to adopt the (Cooper, Lambert et al. 1997) model as it provides more detailed analysis.

Given the importance of e-SCM and its impact on research and business, our motivation is to provide a literature review in a similar way as it has been done by the previous cited authors. The main objective of the present work is to provide

practitioners and academicians with a comprehensive source of information to draw from, and help them identifying areas and directions for future work.

The aim of this research is to consolidate the existing research efforts concerning the impact of the Internet on SCM, and to identify promising areas for study. In particular, the objectives of this study are:

1. To define what can be understood by e-SCM.
2. To determine if e-SCM has been acknowledged as an outstanding topic in the most prestigious Operations Management and Logistics journals.
3. To identify the main topics of e-SCM during the period 1995-2003.
4. To identify the methodologies used in the existing literature.
5. To present a literature review of the main topics on e-SCM.
6. To identify implications and directions for future research.

The work is organised as follows, in section 2 we present a definition of e-SCM. In section 3, we provide a description of the research methodology followed in this work. In section 4, we present a summary of the research results. In section 5, for each e-SCM topic, we provide a literature review and some directions for future research. And, finally, in section 6 we present some conclusions.

2. Defining e-SCM

As (Croom 2005) pointed out very recently, there is some debate about the scope of SCM. For example, (Oliver and Webber 1992) and (Houlihan 1984) used the term SCM for the internal supply chain that integrates business functions involved in the flow of materials and information from inbound to outbound ends of the business. (Ellram 1991) viewed SCM as an alternative to vertical integration. And, (Christopher 1998) defined SCM as the management of upstream and downstream relationships. (Croom 2005) suggested that one way of dealing with the diversity of SCM definitions is to concentrate on the core processes and functions relating to the management of supply chains (for example, fulfilment, operations planning and procurement).

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service management, demand management, fulfilment, procurement, manufacturing flow management, product development and commercialisation, and reverse logistics. Hewitt (1994) found that executives identify up to fourteen business processes. As a result, a definition comprising a number of processes closer to fourteen might provide more detailed information for practitioners and researchers. Accordingly, from the two previous models we decided to adopt the definition of SCM provided by (Cooper, Lambert et al. 1997). This definition has been widely referred to (see for example, (Romano and Vinelli the net. Another impact refers to *information sharing*, how the Internet can be used as a medium to access and transmit information among supply chain partners. However, the Internet not only enables supply chain partners to access and share information, but also to access data analysis and modelling to jointly make a better planning and decision making.2001), (Cagliano, Caniato et al. 2003), (Mills, Schmitz et al. 2004), (Cousins 2005) and (Danese, Romano et al. 2006)).

(Cooper, Lambert et al. 1997) defined SCM as “the integration of key business processes from end user through original suppliers that provides products, services, and information that add value for customers and other stakeholders”. SCM ideally embraces all business processes cutting across all organisations within the supply chain, from initial point of supply to the ultimate point of consumption (Cooper, Lambert et al. 1997). For (Cooper, Lambert et al. 1997), SCM embraces the business processes identified by the International Centre for Competitive Excellence (now Global Supply Chain Forum) (see Figure 1). Accordingly, we define e- SCM as the impact that the Internet has on the integration of key business processes from end user through original suppliers that provides products, services, and information that add value for customers and other stakeholders.

This jointly planning and decision making is the third type of impact of the Internet on SCM and we refer to it as *knowledge sharing*¹.

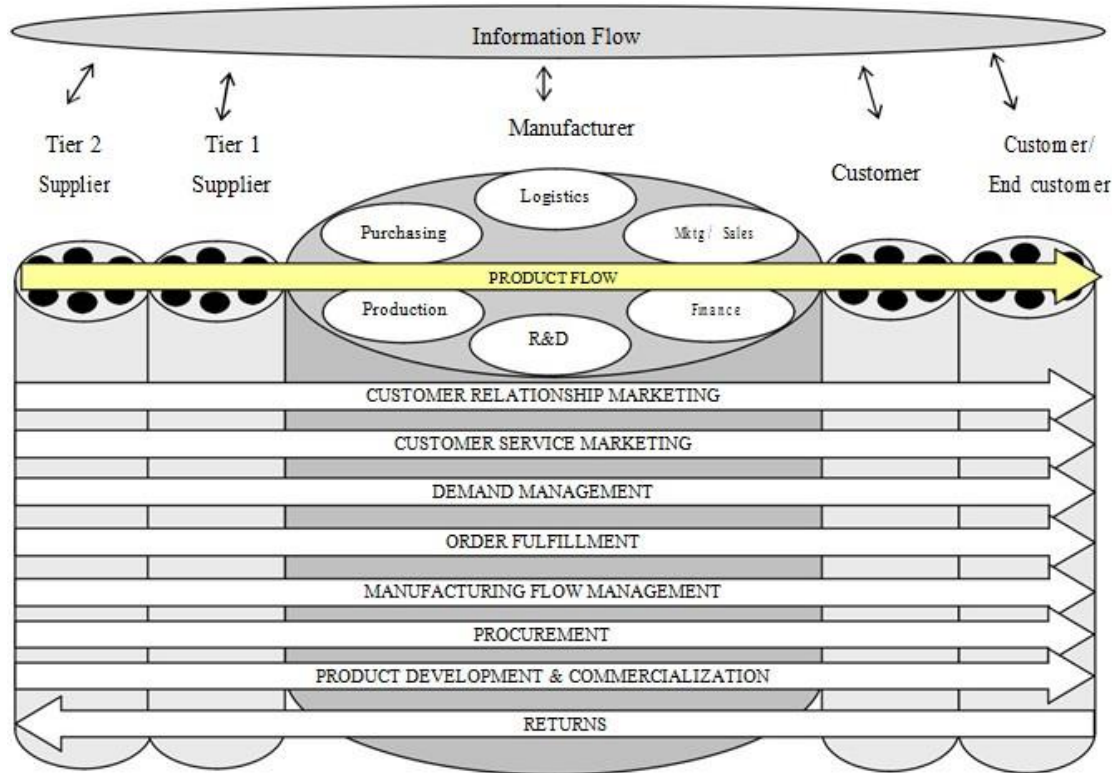


Figure 1. Supply Chain Management

Source: (Cooper, Lambert et al. 1997)

3. Research methodology

3.1. Journals chosen

This paper reviews the literature in academic journals where Operations Management and Logistics academics and practitioners publish. The objective is to collect, organise and synthesise existing knowledge relating to SCM and the Internet. We have made a literature review of thirteen Operations Management and seven Logistics journals for the period 1995-2005. Operations Management journals have been chosen through the analysis of previous studies that classified and ranked the most significant Operations Management journals in both U.S. and Europe ((Vokurka 1996); (Goh, Holsapple et al. 1997); (Soteriou, Hadjinicola et al. 1999); (Donohue and Fox 2000) and (Vastag and Montabon 2002)). The thirteen Operations Management journals selected are: California Management Review (CMR), Decision Sciences (DS), European Journal of Operational Research (EJOR), Harvard Business Review (HBR), Interfaces (INTERFACES), International Journal of Operations and Production Management (IJOPM), International Journal of Production Economics (IJPE), International Journal of Production Research (IJPR), Journal of Operations Management (JOM),

Management Science (MS), Omega (OMEGA), Operations Research (OR) and Production and Operations Management (POM). Logistics journals have been chosen analyzing the reference list of Operations Management and Logistics articles; the most cited Logistics journals have been included in our analysis. These journals are: International Journal of Physical Distribution and Logistics Management (IJPDLM), Journal of Business Logistics (JBL), Journal of Enterprise Information Management (JEIM), Journal of Purchasing and Supply Management (JPSM), Journal of Supply Chain Management (JSCM), Supply Chain Management: An International Journal (SCM) and The International Journal of Logistics Management (TIJLM).

We started our analysis in 1995 because a taxonomy analysis carried out by (Alfaro, Alvarez et al. 2002) permitted to determine that in 1995 just only about 2% of published papers in prestigious Operations Management journals were dedicated to SCM. Also, the Internet is a recent information technology. As a result, the research dedicated to SCM and the Internet before 1995 must be very limited. Due to the existence of multiple words related to the topic, we spent substantial time in the traditional and electronic library system sorting through the academic and business journals reviewing titles, abstracts and manuscripts. The topics we used to search were: Internet, e-commerce, B2B, B2C, e-SCM, electronic supply chain and information technologies. In total we collected 174 articles.

32 Classification methodology

We classified the articles by topic areas and by research methodologies. In order to classify the papers by topic we developed a framework which is shown in figure 2. As previously stated, following the definition of (Cooper, Lambert et al. 1997), e-SCM is defined as the impact that the Internet has on the integration of key business processes from end user through original suppliers that provides products, services, and information that add value for customers and other stakeholders. As a result, a set of topics are related to the processes proposed by (Cooper, Lambert et al. 1997): customer relationship management, customer service management, demand management, e-fulfilment, e-procurement, manufacturing flow management, product development and commercialisation, and reverse logistics. These set of topics are represented in Figure 2 under the concept of SCM processes.

We added some topics that are related with SCM enablers, such as supply chain relationships, planning and optimisation tools and information flows. The topic of supply chain relationships was used to classify the papers that analyse the impact of

the Internet on the management of supply chain relationships. The papers classified under the planning and optimisation topic are the ones that apply planning and optimisation systems based on decision models and technologies to several SCM processes. And, information flows comprises the papers that describe how information flows along the supply chain by means of Internet technologies.

Finally, we added two topics: industry structure and competitive challenges, and impact on performance. The first refers to the impact of the Internet on the industry structure and how companies are responding to competitive challenges using the Internet, and the latter refers to the impact of e-SCM on performance. In section 5, we describe in detail each topic.

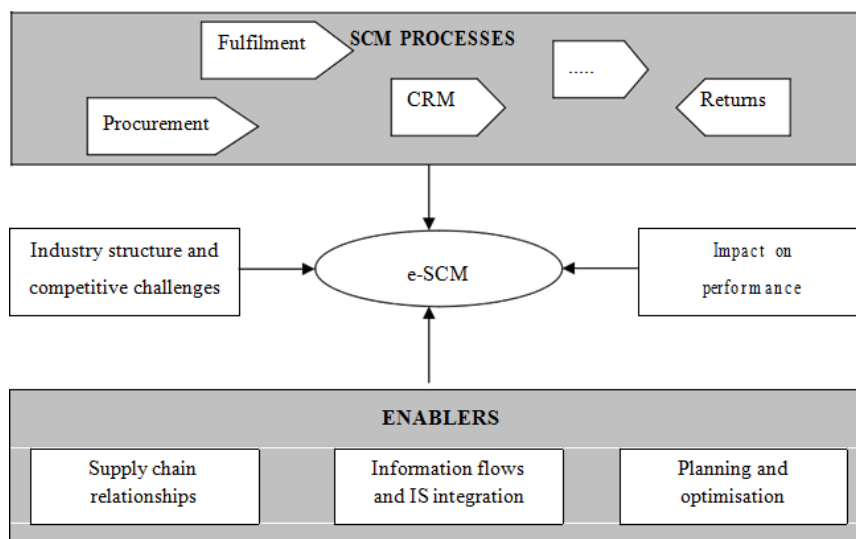


Figure 2. A framework for e-SCM

In order to classify the papers according to the methodology, we used four categories: conceptual, literature review, empirical and decision models. In the conceptual category we classified all papers that describe or present an aspect of e-SCM. In the literature review category, we classified the papers whose main objective was to present a review of the work done on a specific topic. In the empirical category we considered the papers based on the results of case studies, surveys or web scans. And, finally, in the decision models category we classified all papers that apply decision technologies, such as mathematical and optimisation models, exact and heuristic solution methods, simulation, economic models, game theory, etc., to help managers to make better decisions.

In order to classify the papers and minimise questions in this process, we listed the possible subtopics by topic. However, we still found some papers whose classification

was not easy. In these cases, all the authors were conferred and discrepancies were discussed until a consensus was reached.

When we were addressing the classification according to the methodology used in each paper, we realised that researchers sometimes use more than one methodology. In these cases, we identified all the methods and tried to determine the main contribution of each one to the achievement of the objective of the paper. We, therefore, classified the paper in the methodology category according to the methodology that contributed most to the objective of the paper. For example, one of the papers developed a web dynamic Available-To-Promise system and tested it in a case study. This paper was classified in the decision models category because the main objective of the paper was to develop the system.

4. Research results

In this section we analyse the information obtained and provide answers to the following research questions: 1) Has e-SCM been acknowledged as an outstanding topic in the literature in the most prestigious journals of Operations Management and Logistics? 2) Which are the e-SCM topics covered in the most prestigious journals of Operations Management and Logistics? and 3) Which is the methodological profile followed by the e-SCM papers published in the most prestigious Operations Management and Logistics journals? In section 5, for each e-SCM topic we present a literature review and identify some lines of further research.

4.1. Has e-SCM been acknowledged as an outstanding topic in the literature in the most prestigious journals of Operations Management and Logistics?

Table I shows the distribution of articles along the time and the journals. As it can be appreciated in Table I, the total number of papers related to e-SCM topics in the Operations Management and Logistics journals has increased considerably. In the 1995-1999 period, there were only twelve articles while after the year 1999 the number of papers published by year increased considerably. Only in one year (2000) the number of papers published was similar to the number of papers published during the previous five-year period (1995-1999). And, during the last three years of the period analysed (2003 to 2005) more than thirty papers per year have been published. The increase in the number of e-SCM papers has been bigger in the Operations Management journals than in the Logistics journals. This demonstrates that the e-SCM

topic has gained importance in the research agenda, especially in the Operations Management journals. From the twelve articles published during the first period (1995-1999), there are only two papers published in 1995 and three papers published during the year 1996. This suggests that the starting year of the interval object of our research (1995) can be justified.

For each journal, Table I shows the total number of papers related to the e-SCM topics in absolute and relative terms. In absolute terms the journals with a highest number of e-SCM papers published are: SCM, IJPDLM and MS. In relative terms (approximate percentage of e-SCM papers over the total number of papers published), the journals with a highest percentage are, as expected, some Logistics journals: SCM, JSCM, IJPDLM and JPSM. It has also to be pointed out that the rest of the Logistics journals have a higher percentage than most of the Operations Management journals. Only CMR and POM have a higher percentage than the Logistics journals with the lowest scores (JBL, JEIM and TIJLM).

42 Which are the e-SCM topics covered in the most prestigious journals of Operations Management and Logistics?

Table II shows the topics used to classify the articles and the number of papers published on each one. As it can be appreciated in this table, the topics more covered by the existing literature are: e-procurement, e-fulfilment and information flows. The topics least covered are: demand management, customer relationship management, customer service management, and returns and reverse logistics. If we had included Marketing journals in our analysis we would probably have found a higher number of papers under the demand management, customer relationship management and customer service management topics. What is surprising is the reduced number of papers covering the impact of the Internet on the returns and reverse logistics process despite the increasing importance of this process. However, it must be pointed out that the papers on the impact of the Internet on the reverse logistics are quite recent. We expect to find more papers covering this topic on the future. Other processes that require further study are the manufacturing flow and the product development processes, as they have also been covered by few papers. Nine papers have analysed the impact of the Internet on several supply chain processes and we expect a higher number of papers under this topic in the near future. Regarding the impact of the Internet on the

performance and the industry structure, few papers have considered these topics and most of the existing papers on this topic have been published very recently.

43 Which is the methodological profile followed by the e-SCM papers published in the most prestigious Operations Management and Logistics journals?

Table III shows the research methodologies used in the papers contained in our database. The methodologies most used by the existing papers are empirical (surveys and case studies), decision models and conceptual. Each one of these methodologies was used approximately by one third of the papers. Only seven out of the 174 papers analysed conducted a literature review and only two of them focused on the impact of the Internet on SCM. This highlights the need of a study like the one we provide in this paper, as it tries to clearly represent what we currently know about the effects of the Internet on SCM and what we still need to learn.

The conceptual methodology has been used in almost all the topics. The literature review methodology has been used to analyse e-procurement, product development, several supply chain processes simultaneously, and planning and optimisation. All the topics, except demand management, and planning and optimisation have been analysed through an empirical methodology. Decision models have also been used in most of the topics (the topics not covered by this methodology have been the industry structure and the ones more related with the Marketing area: customer relationship management, customer service management and demand management). In section 5, for each topic we provide an analysis of the methodologies used and identify further lines of research. In the appendix, we provide a table showing which methodology was followed by each paper.

5. Literature review and classification

In this section, for each one of the topics used to classify the papers we provide a description of the topic, an analysis of the impact of the Internet on it, a summary of the existing studies and some directions for further research. This section is structured as follows: we first focus on each one of the processes identified by the Global Supply Chain Forum, we, then, continue with the enablers and, finally, we cover the impact of the Internet on the industry structure and competitive challenges, and on the firms' performance.

5.1. The customer relationship management process

The customer relationship management (CRM) process provides the structure for how the relationship with the customer is developed and maintained (Croxtton, García-Dastugue et al. 2001) . This process includes identifying key customers, segmenting them and tailoring products and services to their needs. The process also includes all activities related to working with customers in order to (1) improve processes, (2) eliminate demand variability and non-value added activities, and (3) develop agreements of metrics.

What is the impact of the Internet on this supply chain process? We can distinguish two different types of impacts: Internal and downstream. Internal effects refer to the impact of the Internet on the focal company. For example, through the Internet, all business units can have access to the same information about each customer. This means that all business units will be able to negotiate and relate with customers taking into account the same information.

The downstream effects refer to the impact of the Internet on the relationships with customers. One of the most important aspects of the downstream effects is that web sites allow companies to collect data as users navigate around them. This means that the Internet can generate a large amount of data, which can be very useful to CRM if it is analysed properly with Operations Research (OR) models ((Geoffrion and Krishnan 2001), (Sodhi 2001)). This has motivated the development of OR-based tools for predicting individual consumers' purchasing behaviours, leading to improvements in forecasting and inventory deployment (Sodhi 2001). Another downstream effect of the Internet is that it allows companies to provide new services to customers, increasing the companies' products and services offerings.

Further research regarding this process should try to analyse how different business units can use the same customer data. Future research should also try to determine what specific type of integration alternatives are available for organisations working with rapidly changing CRM and SCM support technologies. Future studies should also develop decision and OR tools to analyse the large amount of data gathered through the Internet. And, finally, researchers should also provide more empirical studies showing how the Internet is used to provide different product and service offerings (as it can be appreciated in Table IA in the appendix only one of the existing papers related this topic is empirically based).

5.7. The product development and commercialisation process

The product development and commercialisation process is critical to the success of the firm. It is the set of activities that companies should undertake to successfully develop and launch products. According to (Croxtton, García-Dastugue et al. 2001), this process includes the following subprocesses or activities: defining new products, establishing the cross-functional product development team, designing and building prototypes, determining the distribution channel for the new product, and measuring the process performance. The process includes integrating customers and suppliers into the product development in order to launch the right product and to reduce the time to market. For example, Microsoft used a web collaboration tool to bring the Xbox video game console to market two months ahead of schedule (Keenan and Ante 2002).

What is the impact of the Internet on this process? One of the most important impacts is to enable collaboration among different functional areas and companies. Internet-based product development can make product design a truly collaborative process among designers, manufacturers, suppliers and customers without the limitations of geographical location and time zone (Cheng, Pan et al. 2000). Taking the perspective of a focal company, we can distinguish three types of effects: internal, downstream and upstream effects. Internal effects refer to the impact of the Internet on the focal company. The Internet enables the collaboration of different functional units in the new product development process. Downstream effects refer to the impact of the Internet on the relationships with customers: the Internet facilitates the involvement of customers and/or end-users in the design of new products, increasing the response of the company to the customer wants and needs. The company can also use the Internet to study the market in a faster and cheaper way. And, the upstream effects refer to the impact of the Internet on the relationships with suppliers: Suppliers can be involved in the process as early as possible in order to reduce costs and compress the time to market.

In the literature review on this topic, we found that the internal aspects were covered by (Xie and Salvendy 2003) and (Xie, Xu et al. 2005), while the upstream impacts were analysed by (Elliman and Orange 2000) and the downstream ones by (Finch 1999), (Cheng, Pan et al. 2000) and (Xie, Tu et al. 2001). Finally, (Xie, Tu et al. 2003) presented a literature of the existing one-of-a-kind products systems and analysed the recent approaches of Internet-based design and manufacturing systems. They focused on Internet based-collaborative design along the supply chain, covering the internal, upstream and downstream effects.

The existing studies have covered the areas of information and knowledge sharing, and the upstream, internal and downstream perspectives. However, only one study, out of the seven found, is empirically based. Further research should put more emphasis on conducting empirical studies in order to determine the real use and advantages of using the Internet in the product development and commercialisation process.

5.8. The reverse logistics and returns process

Effective returns management is a key process in today's business. The returns policy is one of the most attractive tools to stay competitive (Rogers and Tibben-Lemke 1999). This process includes all the elements in a supply chain and involves decisions on return avoidance practices, gate keeping, disposition guidelines, development of a returns network and flow options (Croxtton, García-Dastugue et al. 2001).

How can the Internet help this process? Managing returns involves managing different types of data: reasons for return (defective, in warranty, old, etc.), conditions of the product, point of return, instructions to customers, etc. The major impact of the Internet on this process consists on providing better information and knowledge to all members of the supply chain involved in this process.

Another impact of the Internet on the returns process is related with e-commerce. E-commerce generates more returns than the traditional commerce (Gentry 1999) and (Meyer 1999)). Handling these returns efficiently is, without any question, an important issue for companies selling through the Internet. Not only because the volume of returns is higher in the e-commerce than in the traditional channel, but also because the logistics involved is different. For example, in the traditional commerce, a customer that wants to return a product (within a few days of having bought it) he just has to go back to the store and return it. On the Internet channel this is different: How should the product be returned? Who should pay for this return? And, what should be the best supply chain structure to recover these products efficiently? It is not clear that the same structures of the direct supply chain should be used. Designing efficient close-loop supply chains is a key element to improve the reverse logistics and returns process, and the Internet can play an important role on this aspect.

In the literature review regarding this process, the existing papers cover both types of impact: sharing information through the Internet and returns of e-commerce sales. In Table X we present a classification of the papers in this topic. (Spengler and Schröter 2003) provide a case study to show how an Internet tool can be used to provide

information to all members of the supply chain involved in the returns process. (van Nunen and Zuidwijk 2004) describe the impact of information and communication technology, including the Internet, on the three perspectives of a Close-Loop Supply Chains: processes, products and customers. (Vlachos and Dekker 2003) provide a mathematical model to better manage the returns for Internet sales, and (Mukhopadhyay and Setoputro 2004) analyse, for e-retailing businesses, the trade-off between the increased revenue due a generous returns policy and the increased cost due the increased quantity of products return.

In the next future, we expect the development of decision models to solve the problems related to the huge amount of returns associated with e-commerce. Some lines of further research are: the dynamic estimation of expected demand of serviceable returns (Vlachos and Dekker 2003), inventory models considering returns, production planning including recoverable parts and assemblies (Soto and Lourenço 2002), routing and distribution systems to handle returns, etc. Also, the possibility of sharing, through the web, information related to the returns puts more emphasis on developing analytical tools to help decision makers. More studies like the one provided by (Spengler and Schröter 2003) are expected. Finally, researchers should also focus on the design of closed-loop supply chains that make use of the Internet to manage efficiently the recovery of the return products, as the work of (van Nunen and Zuidwijk 2004) does.

5.9. Impact of the Internet on several supply chain processes

Under this heading we have classified all the papers which aim is to analyse the impact of the Internet on several supply chain processes. Table XI shows the papers classified under this category. Seven papers have been classified into this category. (Gunasekaran, H.B. Marri et al. 2002) and (Sarkis, Meade et al. 2004) are conceptual papers. (Gunasekaran, H.B. Marri et al. 2002) define e-commerce and examine its application in manufacturing, retailing and service operations. (Sarkis, Meade et al. 2004) focuses on a discussion of forward and reverse e-logistics and their relationship to the natural environment.

(Cagliano, Caniato et al. 2003), (Muffatto and Payaro 2004) and (Croom 2005) are empirically based papers. (Cagliano, Caniato et al. 2003) explore the actual adoption of Internet technologies in several supply chain processes by a large sample of European manufacturing firms. And in (Cagliano, Caniato et al. 2005) they provide an update of the previous paper. (Muffatto and Payaro 2004) analyse the benefits achieved in the

procurement and fulfilment processes as a result of the Internet usage in these processes. (Croom 2005) through an interview study with a large sample of organisations analyses the impact of e-business on supply chain strategy, examining three representative areas of SCM: the procurement, CRM and fulfilment processes.

The paper of (Robinson, Sahin et al. 2005) is a simulation-based paper which aim is to investigate the impact of electronic replenishment (the seamless automation of the buyer's procurement and vendor's fulfilment processes) on the operational activities and performance of a make-to-order supply chain.

5.10. Supply chain relationships

SMC is “the management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost to the supply chain as a whole” (Christopher 1998).

Companies strategically segment their relationships and establish arm's length relationships with some supply chain members and strategic partnerships and alliances with others. The Internet has an impact on how companies manage all type of relationships. For the strategic partnership approach, the Internet enables companies to share information and knowledge, leading to higher levels of coordination and collaboration. And, for the arm's length approach, firms can benefit from the use of dynamic pricing structures that are web-enabled.

The existing papers are mainly conceptual (see Table IA in the appendix). As it can be appreciated in Table XII, three different subgroups can be identified. There are some papers which focus on the collaboration nature of Internet-enabled supply chain relationships (see for example, (O'Keefe 2001a), (O'Keefe 2001b) and (Williams, Esper et al. 2002) and (Yeh 2005)). Another group of papers focuses on the need of matching the e-business model with the type of relationship kept with the supply chain member: (Roberts and Mackay 1998), (Jap and Mohr 2002), (Caputo, Cucchiella et al. 2005) and (Nair 2005). And finally, there are some papers that focus on the impact of the Internet on the nature of the supply chain relationships and how to manage them: (Golicic, Davis et al. 2002), (Agarwal and Shankar 2003) and (White and Daniel 2004). Further research should try to conduct more empirically-based studies in order to analyse which has been the real impact of the Internet on the management of supply chain relationships. Some lines of future research are: (1) to examine in a greater depth (by extending the sample to a larger number of firms) the impact of e-commerce on

relationships (Golicic, Davis et al. 2002); (2) to study it from a dyadic or a supply chain perspective ((Golicic, Davis et al. 2002) examined it from a single-firm point of view); and (3) to empirically test the relationship established by (Jap and Mohr 2002) between type of relationship (relational or transactional) and the Internet efficiency.

5.11. Information flows

Under this heading we have classified all papers describing how information flows in a supply chain enabled by Internet technologies. Although business-to-business electronic trading has been around for more than 20 years thanks to EDI, the complexity of early EDI packages, rival standards and its relatively high costs have traditionally excluded many companies, especially small firms (Kehoe and Boughton 2001b). The relatively easy access to the Internet (most organisations have a telephone and a PC) makes this technology have a bigger impact on information flows than EDI.

The impact of the Internet on the information flows of a supply chain consists mainly on enabling companies to share information on real time. For years, ERP systems provided the ability to access information from various parts of the organisation.

However, their potential could not be explored and expanded due to a lack of common standards and cost of access. The growth of e-business enabled to share information, made available from ERP systems, with other supply chain members (Swaminathan and Tayur 2003).

This sharing of information affects all supply chain processes and some of its effects are: inventory can be reduced due to better forecasts, inventory allocation in different retail outlets can be done more effectively, advanced planning and optimisation tools can be used because there is more information available, collaborative planning and design can be implemented, etc.

The papers in this topic can be subclassified in the following categories (see Table XIII): integrated information flow along the supply chain using Internet technologies, expand ERP to SCM software via the Internet, the Internet opens up new perspectives for SME, development of knowledge management systems, virtual integration, and e-business models (drivers, software selection, etc).

The following papers analyse the integrated information flow along the supply chain using Internet technologies. (Van Hoek 2001), (Disney, Naim et al. 2004), (Lyons, Coronado Mondragon et al. 2005), (Gaur, Giloni et al. 2005), (Agi, Ballot et al. 2005)

describe the importance and impact of the integrated flow of information along the supply chain.

(Wilson and Clarke 1998) and (James, Grosvenor et al. 2004) describe how the Internet can be used to collect, locate and disseminate traceability data. (Lewis and Talalayevsky 2004) investigate information-driven supply chain structures. And, finally, (Turowski 2002) and (Zhu 2004) evaluate the informational effects of B2B and e-commerce.

(Davenport and Brooks 2004), (Themistocleous, Irani et al. 2004), (Bendoly and Schoenherr 2005) and (Biehl 2005) analyse how to extend ERP systems into SCM systems. (De Burca, Fynes et al. 2005) examine how Small and Medium Enterprises (SME) are responding to the challenge of ERP systems and Internet technologies to enhance performance and improve competitiveness. As they focus SMEs we have classified this paper under both categories: expand ERP to SCM software via the Internet, and the Internet opens up new perspectives for SME.

(Stefansson 2002), (Chan and Chung 2002) and (Larson, Carr et al. 2005) discuss how the advent of the Internet opens up new perspectives for Small and Medium Enterprises (SME).

The development of knowledge management systems has been analysed by: (Greis and Kasarda 1997), (Tatsiopoulos, Ponis et al. 2002), (Yoo and Kim 2002) and (Mondal and Tiwari 2003). (Greis and Kasarda 1997) describe how information flows provide an opportunity for new logistical systems and knowledge-based tools. (Tatsiopoulos, Ponis et al. 2002), (Yoo and Kim 2002) and (Mondal and Tiwari 2003) provide the development of data and/or knowledge management systems for sharing information and/or knowledge throughout the supply chain.

(Upton and McAfee 1996), (Bal, Wilding et al. 1999), (Sarkis and Sundarraj 2002) have been classified under the virtual integration category. (Upton and McAfee 1996) and (Sarkis and Sundarraj 2002) cover the brokering situation of the virtual and e-commerce enabled organisations while (Bal, Wilding et al. 1999) describe how the Internet enables the creation of virtual teams.

Finally, there is a set of papers that analyse different topics related to e-business models. (Sarkis and Talluri 2004) analyse the decision of selecting the e-commerce technology and software most adequate for an integrated supply chain. (Hayes and Finnegan 2005) develop a framework for assessing the suitability of different e-business models. And, finally, (Power 2005) evaluates the relative importance of

various drivers of information-technology-related performance in an e-business context.

Most of the existing papers describe the impact of the Internet on information flows or develop support systems to enable the sharing of information through the Internet. Very few papers are empirically -based, and the existing ones are case studies, which aim is to explore this impact on the real world. One line of further research should be to conduct surveys in order to generalize the findings of these case studies. Some research objectives should be: to determine the level of adoption of virtual teams and to analyse what type of information are companies really sharing through the Internet.

6. Conclusions

It has been demonstrated that the Internet can have an important impact on the management of the supply chain and it can improve the competitiveness of firms. The literature review undertaken on the topic has shown that e-SCM has been acknowledged as an outstanding topic in the supply chain literature in the most prestigious Operations Management and Logistics journals, especially after year 2000. However, our literature review has shown that there is a disjointed scattering of research activity that fails to clearly represent what we currently know about the effects of the Internet on SCM and what we still need to learn. In this paper we have attempted (1) to describe the impact that the Internet has on the different supply chain processes, (2) to review the existing literature on the topic, (3) to provide a framework for the analysis of e-SCM, and (4) to identify further lines of research.

Although the literature review is not exhaustive (other management journals should have also been reviewed, such as Marketing and Information Systems journals), it serves as comprehensive base for understanding the impact of the Internet on SCM. Our paper has followed the same methodology as the literature reviews of (Johnson and Whang 2002) and (Gunasekaran and Ngai 2004), but it differs from them on the objectives established and the results achieved. (Johnson and Whang 2002) explored how e-business was changing the supply chain and examined the rapidly evolving research in this area. They classified 30 papers into three categories: e-commerce, e-procurement and e-collaboration. They provided a summary of what these papers were covering but they did not identify further lines of research. (Gunasekaran and Ngai 2004) reviewed 114 papers on IT in SCM and elaborated a framework for the development and implementation of IT in SCM. This literature review had the

objective of classifying the papers to bring out pertinent factors that would support practitioners in their effort to achieve an IT-enabled SCM. They also provided some lines or further research for academicians. Our paper, as the (Gunasekaran and Ngai 2004) paper, provides a framework to classify the existing research and identifies some lines of further research. One of the key contributions of our paper is that it presents a framework based on the idea that SCM is the management of key business processes, which has been recently adopted by many researchers (see for example, (Romano and Vinelli 2001), (Cagliano, Caniato et al. 2003), (Mills, Schmitz et al. 2004), (Cousins 2005), (Croom 2005), and (Danese, Romano et al. 2006)).

We believe that this paper will be very helpful for practitioners and academicians. Practitioners are provided with some insights regarding which are the main effects of the Internet on SCM and which sources can be consulted in case of being interested in obtaining a deeper knowledge of the impact of the Internet in a specific area (for, example, a practitioner interested in adopting an e-procurement tool can review the papers classified under this topic). Researchers are given a framework that classifies the existing literature. The value of this framework is a tool to help researchers synthesise the volume and breadth on what has been done on e-SCM. Researchers are also given some lines of further research.

We expect that the number of research papers in this area will increase significantly in the next years, given the increased interest in SCM and the Internet by academicians and practitioners. Some directions for further research that we have identified are: to conduct empirical studies about the impact of the Internet on several SCM processes, such as the reverse and the demand management processes which, so far, have been only considered by a couple of authors. Further research should also put more emphasis on conducting empirical studies regarding the implementation of the Internet in the product development process. Another important area of research is the application of decision models and technologies on the Internet and the development of Application Service Providers (ASP) to obtain knowledge for the firms belonging to a supply chain. As more and more firms have high quality and real-time information available, the use of these decision technologies will increase, since they add significant value to the members of a supply chain. Although e-fulfilment has been one of the most covered topics there are still some further lines of research in this area: to study new strategies to respond to the challenge of the last mile problem, and to conduct more empirical studies to explore what companies are doing to respond to this challenge and which are

the results of the different actions taken. E-procurement has been the most covered topic, especially the subtopics related with marketplaces and auctions. However, we identified some lines of further research related with this topic: to investigate the benefits and barriers of B2B procurement, and to analyse how to strategically segment e-procurement strategies. Finally, despite we found several papers analysing the impact of the Internet on performance, they did not consider business conditions. Different authors suggest that different SCM strategies are more suitable under different business conditions (see for example: (Fisher 1997), (Ramdas and Spekman 2000), (Cigolini, Cozzi et al. 2004) and (Van der Vaart, Giménez et al. 2006)).

One promising line of further research is to investigate under which circumstances different Internet-enabled supply chain collaboration tools have a higher impact on performance.

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**“AN EMPIRICAL STUDY ON IMPACT OF GREEN HUMAN
RESOURCE FUNCTIONS ON ENVIRONMENTAL
PERFORMANCE: CASE STUDY WITH REFERENCE TO ICICI
BANK”**

ABSTRACT:

Green HRM is a new philosophy in management based on green movement or else can say protection of surroundings by applying concept of “green” to the field of human resource management. Green HRM involves indispensable elements i.e. “environment friendly HR practices”, which will help the producer in visualization and brand building.

Environment & climate change are the most critical issues that now a day’s world facing. Change is needed for the survival & efforts should be made for environment management in sustainable way. Being financial organization Banks are responsible for facing the economic & development activities of nations. Banks have to address issues in obligation & opportunity terms for inculcating. Banks activities are not directly but indirectly affecting the environment. So need to adopt green HR practices into their operations. Now a day’s banks are voluntarily implementing Environmental Management System (EMS) for the same. But only installing EMS will not be sufficient, effective in enhancing environmental performance until employees from banks get motivated to the successful implementation of EMS.

Purpose of this research paper is to verify relationship between Green HRF & organizational performance recognized by the ICICI bank employees. Questionnaire prepared on same from the literature review study, distributed amongst the employees & managerial people of ICICI bank. The result is drawn with the help of regression analysis.

Keywords: *Green HR, Environment Management System (EMS), Best practices, Human Resource Functions, ICICI Bank.*

JEL Classifications: M1, M14

INTRODUCTION:

India is a huge population country; it becomes necessary to a country like India to take interest in environmental concerns is important in the current scenario. Presently every

industry preparing & executing go green practices to reduce environmental issues. In Human resource management, green policies are developed to save from harm their resource for future enlargement of every industry along with humanity too.

Banking is one of service sector from India, growing large, having maximum social & financial responsibility, play a crucial role in day to day activity of every citizen. Indian Banking Industry is aware that, they put up a popular social morals & green sense of reliability. Banking industry is not just for brand building tool, but it has enlarged for basic instrument for banking. Now a day's HR functions taking initiative in banking sector too for aligning its regular practices & policies with sustainability goals dazzling an ecofocus.

Green HR management is a process of developing environmental management policy (Lee, 2009) below which banking has to fasten balance between obligatory banking development & safety of natural environment for next generation. Green HRM is nothing but greening of functional dimension of HRM like, job design, HR procurement (recruitment & Selection) Performance Management & Rewards.

Green HRM professes use of every employee edge helping to encourage sustainable practices & increase employee alertness and commitments on matters of sustainability. The main focus in the banking sector, initiating innovative practices in the optimum operation of resources with less consumption of time, resulting in cost-effectiveness.

Why ICICI Bank:

ICICI bank stands Industrial Credit and Investment Corporation of India. It is one of the Indian Multinational & Financial Service organizations. ICICI is the third largest bank in India in terms of assets and third in term of market capitalization. ICICI offers broad range of banking products and financial services for corporate and retail customers through a variety of delivery channels and specialized subsidiaries in the areas of investment banking, life, non-life insurance, venture capital and asset management.

OBJECTIVES

- a. To study green HR initiatives used by ICICI bank.
- b. To determine relationship between HR factors affecting to Environmental issues.
- c. To analyze organizational Environmental performance recognized by organizational employees.

HYPOTHESIS:

H1: Green HRM initiative taken by ICICI bank will be positively related to perceived environmental performance.

H2: Employee environmental Communication will be positively related to perceived environmental performance.

H3: Employee environmental Procurement & training will be positively related to perceived environmental performance.

H4: Employee Participation will be positively related to perceived environmental performance.

H5: Employee Compensation & Rewards practices will be positively related to perceived environmental performance.

H6: Green HR activity will be positively related to perceived environmental performance.

RESEARCH METHODOLOGY:

Type of Research	Descriptive Research
Universe	Selective 8 branches of ICICI Bank
Sampling Technique	Random Sampling
Sample Size	70 questionnaire distributed Managerial & Non Managerial level employees
Scaling technique	5 points Likert Scale (1 Strongly Disagree to 5 Strongly Agree)
Tools for Data Collection	Questionnaire (Online Form)
Primary & Secondary Data	Primary data collected through questionnaire & Secondary data procure from research papers.
Profile of Respondents	Age group of Employees 21-60 yrs

LITERATURE REVIEW:

Review of Literature is nothing but the report based on studies found in the literature of selected area. The analysis summarizes, appraises & clarifies the journalism. It furnishes a fantasy basis for the research and helps to establish the nature of the research. Journalism reviewed is as follows:

- Rajput, Namita. and Kaura, Ruchika. (2013) studied response of Indian banks to environment turbulence and their action in the view of green banking adoption and gap. They analyzed that main barrier to environment sustainability is “lack of RBI mandates” and RBI needs to make more policies embedding green issues. The results showed that India is adopting green practices very slowly as compare to other countries.
- Islam, Shafiqua and Das, Chandra. (2013) analyzed the green banking in practices in Bangladesh and to give some suggestion in this regard. The study was secondary data based. The finding showed that the bangladesh banks in-house green activities was not at a satisfactory level.
- Bhardwaj, Broto Rautla and Malhotra, Aarushi.(2013) reviewed various models of green banking.
- Md. Maruf, Ullah. (2012) made a comparative analysis among different types of banks [State-own Commercial Banks (SCBs), State-own Specialized Development Banks (SDBs), Public Commercial Banks (PCBs) and Foreign Commercial Banks (FCBs) in operation in Bangladesh to see whether they adopted green banking policy guided by Bangladesh Bank (BB). The study concluded that only PCBs, FCBs have adopted green banking guideline and financed some of green banking based projects on the other hand SCBs and SDBs initiatives are not remarkable.

DATA ANALYSIS & INTERPRETATION:

Table 1: Correlation between Environmental Performance & Other Variables

Sr.No	Variables	No of items	Correlation
1	Green HRM Initiative	06	0.940761147
2	Top Management Commitment	005	0.622616914
3	Communication	05	0.868358283
4	Procurement & Training	04	0.191847074
5	Employee Participation	05	0.583511637
6	Compensation & Rewards	04	0.824862647
7	Green HR activity	16	0.728574194
8	Environmental Performance	07	

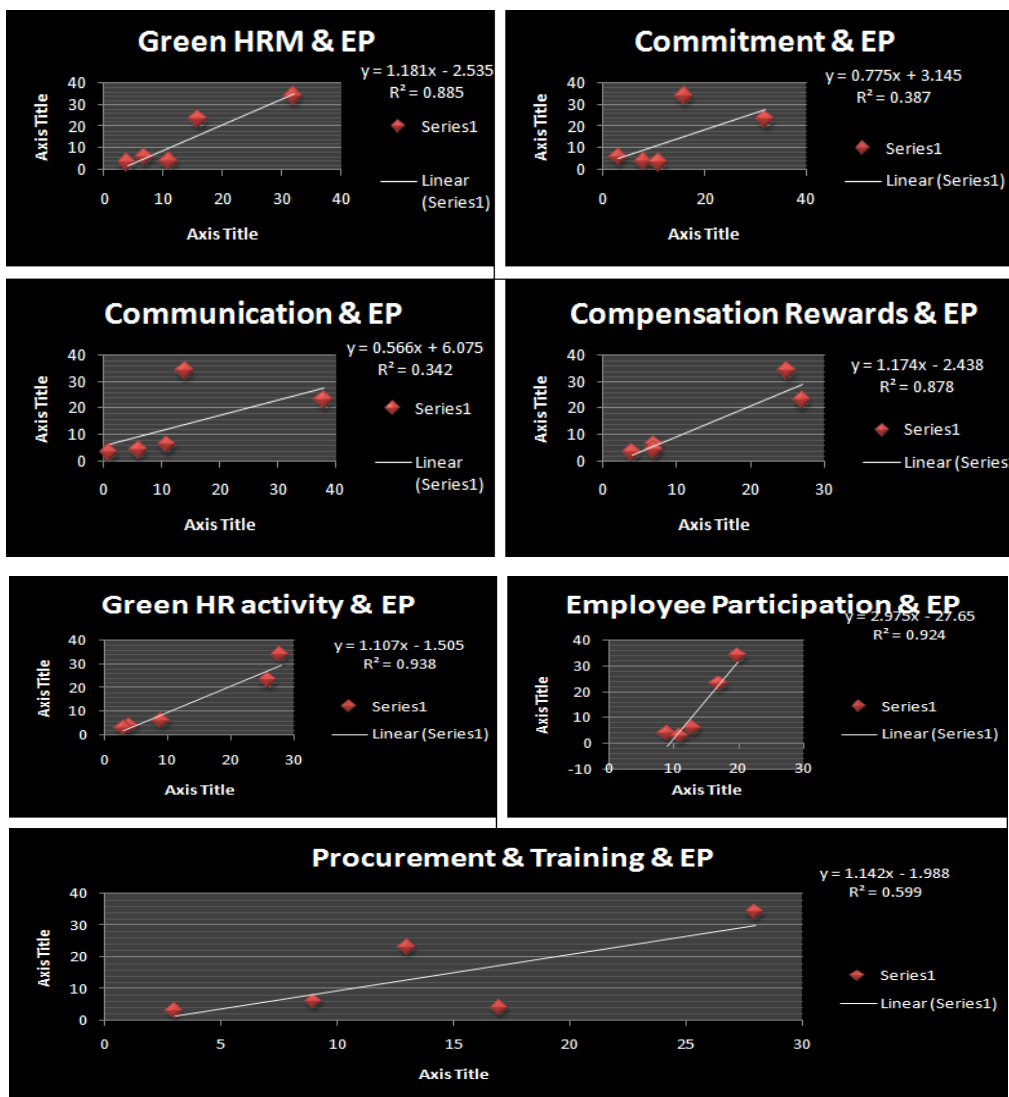
Interpretation: From above table, can conclude that, Green HRM initiative, Communication, Compensation rewards & Green HR activity having strong positive correlation on Environmental performance.

Table 2:

Sr.No	Variables	R ² (Regression)
1	Green HRM Initiative	0.885
2	Top Management Commitment	0.387
3	Communication	0.342
4	Procurement & Training	0.599
5	Employee Participation	0.924
6	Compensation & Rewards	0.878
7	Green HR activity	0.938
8	Environmental Performance	

Interpretation: Above graph pretend that, every variable is having linear regression with environmental performance.

REGRESSION ANALYSIS GRAPH:



Interpretation: From the above fig. it shows that every variable is having linear correlation with Environmental performance.

FINDINGS:

The Correlation table & Regression analysis shows that, the factors considered – Compensation & Rewards, Green HR Activity, and Employee Participation is having strong positive correlation as compare to others with environmental performance.

CONCLUSION:

The numerical outcome supports some of the worldwide future research hypotheses. Especially Compensation & rewards, Green HR activity & employee participation were found highly positively related to environmental performance, supporting hypothesis H4, H5, and H6. Managerial inferences: It possibly will help employer in decisive the role of each HR factor in implementing an environmental management system in an organization.

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**A REVIEW ON PATIENT AWARENESS AND ATTITUDES IN
INDIA**

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ABSTRACT:

Aims: This study captures the awareness and attitudes of 241 respondents to genetic test.

Methods: Data were collected using a self-completion online questionnaire published on social media platform. The questionnaire is expected to reach to more than 500 respondents. The questions pertained issues related to awareness and attitudes towards genetic testing and reactions to hypothetical results.

Results: The expected response rate was less than 50%. Majority of respondents belonged to age group 28-32. Around 85% of respondents were post graduate and 48% of the respondents have life science background. In this research it was found that, 75% of respondents were aware of genetic test of which 19% among them had personally undergone a genetic test. The respondents think, genetic tests should be prescribed by doctors only. Most of them are not aware of Direct-to-Consumer genetic tests. If asked the reasons for undertaking a genetic test, respondents wanted to know the risk of passing certain disease to their children and risk of carrying certain disease. The respondents are skeptical about genetic tests and don't think the results are valid which were main reasons for refraining from genetic tests.

Conclusions: A good level of awareness about genetic test was reported while very few have experienced it personally. The reasons for undertaking a genetic test and refraining from a genetic test are captured.

Keywords: Genetic Tests, Direct-To-Consumer (DTC) Genetic Test, Awareness, Attitudes, Indian Scenario

Introduction

In the last 15 years, the world has witnessed rapid evolution in the field of genetics which has contributed to the development of genetic tests. Since the 80s, predictive genetic test has come into picture and have been playing a significant role not only in

the scientific field but also in the public opinion. Also, one of the major reasons of this uproar is that predictive/diagnostic genetic tests are increasingly offered at a lower price than in the previous days. This has increased the affordability of the patients to undertake the prescribed genetic test to confirm genetic causes of a disease or disorder. Now-a-days, introduction of Direct-To-Consumer (DTC) genetic test, which means without the intermediation or prescription of a health professional have been used by patients to understand their risk to certain disorders or hereditary diseases. The DTC genetic tests can be ordered online from the commercial entities who provide a sample kit for patients, who collects required sample for test and sends to the lab where the genetic testing is performed. The results of such tests are then provided to the patients. Predictive genetic tests are designed to identify genotypes that might be associated with an increased risk of complex diseases, such as cancer, diabetes, cardiovascular disease, infertility and others. The results are formulated in terms of disease risk probability and provide information on ancestry and individual response to some therapeutic drugs ^[1].

In developed countries there has been a huge response for the genetic tests both from the patient side and the health professional's side. The health professions are now relying on the results of the genetic tests to diagnose and suggest the therapies for diseases. This has been attributed to the rise of personalized medicine and using the same concept to a larger population and developing new medicines or therapies with the genetic approach. The healthcare industry has witnessed a transformation with the rise in genetic testing as a major part in diagnostic and prognostic approaches. A new role of genetic counsellors ^[2] has emerged to fill in the gap between the healthcare professionals and the genetic testing approaches. Similarly, many diagnostic centers and laboratories have adapted to the new changes in the diagnostic methods.

In India, the genetic tests are being used to diagnose cancer and hereditary disorders. The genetic testing in India is yet to catch up with the recent developments as in the developed countries. There are some laboratories that are providing genetic tests by prescription only. The patient is supposed to bear the cost of genetic tests as the genetic tests are not yet covered under insurance schemes. In recent years, some Indian companies like have created its place in the niche market by providing Direct-to-Consumer Genetic Tests. Several surveys have been conducted to assess attitudes towards DTC genetic testing among physicians ^{[3] [4] [5] [6] [7]} and patients ^{[8] [9] [10]}, in developed countries in North America and Europe showing ambiguous results. No research or survey was found to be conducted on assessing awareness and attitudes

towards genetic testing in India. This research is an attempt to understand the awareness and attitudes towards genetic tests among the population of India.

Methods

An online anonymous questionnaire was circulated through social media platform such as LinkedIn, Facebook and WhatsApp in November-December 2018 to the Indian population. A similar questionnaire was previously validated and used for a survey on a sample including medical and not medical Swiss and Italian university students [10]. The questionnaire used for this survey had 11 questions aiming to explore the demographic characteristics and personal opinions about awareness and experience of genetic test. Next questions were aimed towards understanding the reasons for undergoing the genetic tests and also reasons for refraining from genetic test using Likert Scale from 1 (Disagree) -5 (Agree).

Analysis

A descriptive analysis was conducted to report demographic characteristics and personal opinions of respondents. For the multiple-choice questions, the answers were ranked by the number of times they were selected. To conduct a graphical evaluation of differences between motivations for not undergoing in a genetic study through a genetic test, a radar chart bearing the dimension scores was created.

Results

More than 500 people were invited to fill in the questionnaire, of which 241 answered, (response rate <48.2%). The median age was 30 years and 40.6% respondents are from age group 28-32 years; 65.1% of respondents were male. Overall 75.5% of respondents were already aware of genetic tests out of which 19% had personally experienced genetic testing (Figure 1).

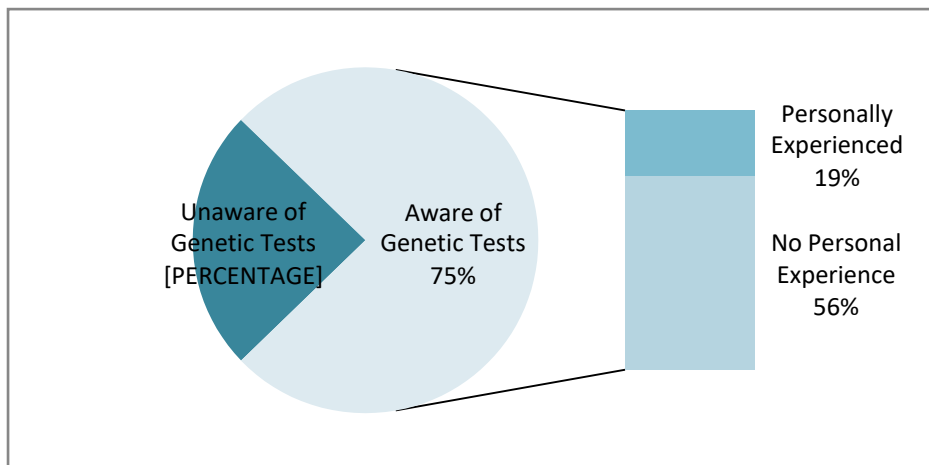


Figure 1: Awareness and Personal Experience of Genetic Testing

Majority of the respondents (62%) have agreed that the genetic test should be prescribed by doctors only. While 21% remain neutral about the prescription of genetic tests, 17% disagree that the genetic test should only be prescribed by the doctors. In terms of Direct-to-Consumer (DTC) Genetic Tests, it was found that 71% of the respondents were unaware of the DTC genetic tests.

Table 1 reports the respondents' reasons for undergoing a genetic test by rating over a scale of 1-5, where 1 being the lowest and 5 being the highest. The main reason for undergoing a DTC genetic test was the willingness to know if they were at a risk of passing their genetic defects to their children (4.4), followed by understanding their own risk of carrying certain diseases (4.2), followed by the willingness to know the sensitivity towards certain medications (4.0). It was noteworthy to see that the population was sensitive towards the price (3.6) and also willing to find their ancestral background (3.5). Among other reasons, knowing personal characteristics, finding process of the genetic test, interest in genetics in general, contribution to scientific research were rated low.

Table 1: Reasons for Undergoing a Genetic Test

Reasons for undergoing a Genetic Test	
Passing genetic defect to children	4.5
Risk of carrying certain diseases	4.3
Sensitivity towards medications	4.0
Price Sensitive	3.7
Ancestral background	3.6
Know personal characteristics	3.4
Find process of the test	3.3
Interested in genetics in general	3.2
Contribute to scientific research	3.2

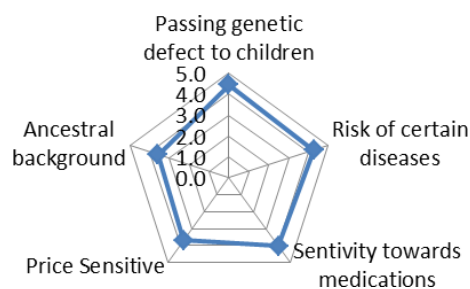


Figure 2: Top 5 Reasons for Undergoing a Genetic Test

Table 2 and Figure 3 describes the respondent’s reasons for refraining from genetic tests, the most selected reason was the lack of confidence in the result (3.7), followed by the utility of result for personal use (3.4) and being skeptical about the genetic tests in all (3.2). Also, other major reason was the concern that the result could cause worry (3.1), followed by the concern with data privacy (2.6) and the costs associated with genetic tests (2.1).

Table 2: Reasons for Refraining from Genetic Tests

Reasons for Refraining from Genetic Tests	
Don't think results are valid	3.7
Don't find any utility of my results	3.4
Skeptical about genetic test	3.2
Results will cause worry	3.1
Data privacy concerns	2.6
Worried about costs	2.1

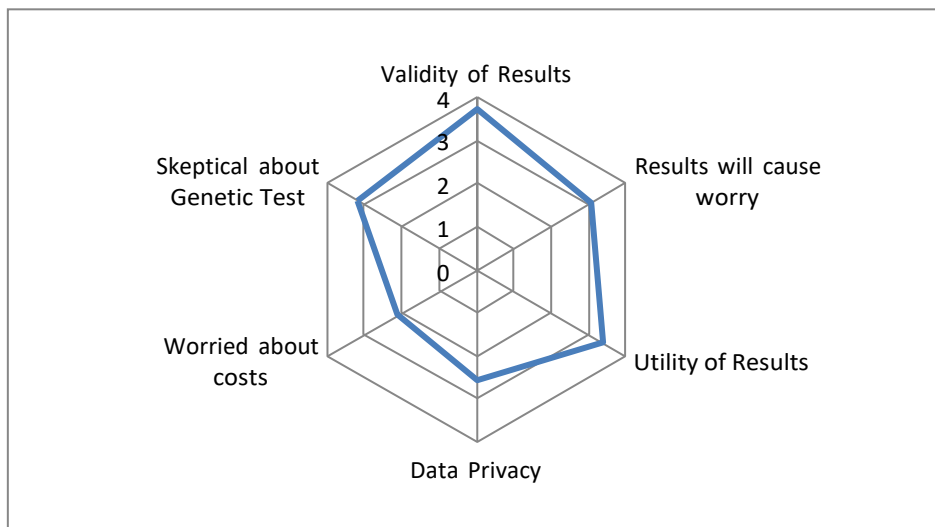


Figure 3: Reasons for Refraining from Genetic Tests

Discussion

This study shows a fair level of awareness on genetic tests in a sample of population based in India and outside India. The survey shows that opinions and reactions on genetic tests are heavily dependent on the awareness of genetic tests.

The population is of the opinion that the genetic test should be prescribed by doctors only as are the other diagnostic tests. This attitude may be due to the conservative

thought process in the minds of patients where all the diagnostic tests should be prescribed only by doctors. The study shows minimal awareness about Direct-to-Consumer Genetic Tests, which can also be attributed to less marketing of these tests in India. Very few companies in India are directly involved in Direct-to-Consumer genetic tests and there hasn't been much of marketing about the Direct-to-Consumer Genetic Tests which may have resulted in the higher percentage of unawareness among the Indian population.

Similar studies have shown a fair level of interest in undergoing genetic test which has been studied in several literatures ^{[11] [12] [13] [14]}. The opportunity to know the risks of owning the gene for particular disorder and passing the same to the next generation were the key reasons for undergoing genetic test among different reasons ^{[11] [15]}, while doubts on validity of the results, and the fear that the result may be of concern and concerns on the privacy of personal data ^{[16] [17] [18] [19]} were the main reasons for not undergoing genetic testing among several studies conducted in developed countries in North America, Europe and Australia.

The population in this research has shown the interest to know any personal predisposition to a disease, rather than the opportunity to participate in scientific research, as the main motivation for undergoing genetic testing. Conversely, among those who were not interested in undergoing genetic test, the main reasons of this lack of interest were doubts about their clinical validity and utility of results, followed by the fear that the results may be of concern. This result is consistent with the literature data explaining why people would refrain from testing: firstly their real clinical value, given the awareness of such tests in the real world scenarios and evidence based clinical path; secondly the possible risk for tests' users to be unjustifiably exposed at psychological harm and distress given their merely probabilistic nature and, generally, their low predictive value ^{[17] [18] [19]}. This is a big issue, mainly because it is possible that the patients opting for genetic test, who did not think they will be concerned about the results as they believed they were not carrying the genetic defect, will become concerned when they actually receive the results.

Data Privacy is another issue that was studied and found as major concern for genetic testing in other studies as well ^[16]. Also, it was ranked low in in this study which can be explained by several factors. First, our sample consisted of very young people (median age 30 years) with most of them Post Graduate and having life science background. The reason can be attributed to the low prevalence of data security cases linked to

personal information exposed in India which has not yet been considered as a serious issue. Previous studies have shown that young people tend to have a lack of knowledge about privacy, which may thus justify why in our study they confirmed to be less concerned about it [20].

The first limitation in our study is the small sample size. The questionnaire was circulated over social media like Facebook and LinkedIn; hence most respondents happen to be socially acquainted and having life science background with a post graduate degree. Also, not much literature was found on the Indian scenario of genetic testing related to awareness and perception. Majority of literature available is related to research performed outside India and concerned with DTC genetic tests.

Despite limitations, final consideration is the good level of awareness and the high interest towards the world of genetic test among majority of Indian population enrolled in this study. This is of concern, as genetic tests have become very popular in developed countries in recent years and doctors in those countries often don't feel adequately prepared to face these new methods of testing and answer the questions of the patients clearly [21] [22] [23] [24] [25] [26] [27] [28]. This scenario is yet to be studied in the Indian context which will give a clear picture on This study is of high importance both for the patient population and for the community given that if medical doctors and public health professionals will not find the way to lead and govern the use of genetic test; other entities will do it for commercial purposes and outside the context of a good clinical practice [29] [30].

Conclusion

Majority of population in this research shows awareness of genetic testing while very few have experienced it personally. The population believes that the genetic test should be prescribed by doctors only as are the other diagnostic tests. The study shows minimal awareness about Direct-to-Consumer Genetic Tests, which can also be attributed to less marketing of such tests in India. The top reasons for undertaking a genetic test are to know the risks of carrying the genetic defect and passing it on to the next generation. While clinical validity, data privacy, psychological disturbances are the top reasons for refraining from the genetic tests. Further study can be conducted by digging deeply into the data and finding insights and correlations among the responses by different strata.

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A STUDY OF EFFECTIVENESS OF PRODUCT PLACEMENT IN INDIAN WEB SERIES AMONG YOUNG CONSUMERS

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ABSTRACT

This Research paper deals with the study of effectiveness of product placement in Web series among young Indian consumers. With increasing competition and media clutter, grabbing consumers' attention is becoming increasingly challenging for advertisers. With the advent of digital technology, the newest way advertisers have found to reach the audiences is through online content. Online content has a wide variety. From blogs to social media to Vlogs there is some form of content platform rising every day. One such phenomenon is the growing popularity of Web series; which are like regular TV shows except you can watch them online. Product Placement in Web series refers to commercial inclusion of a brand within an episode either by way of visual presence, verbal mention or integration into the story line with an aim to influence recall and thereby consumers' perception towards the brand. Although the digital growth in India is one of the highest in the world, and advertising in this medium is a growing trend; it is important to evaluate the effectiveness of these placements as well as identify specific placement characteristics that can facilitate brand recall. The study will help students and academicians to understand the scope and value of Product placement and also contribute to marketers in getting connected to the consumers in a stronger manner.

This study was developed in two stages, including majorly secondary and some primary data to understand the secondary data in Indian perspective. Primary data was obtained through an on-line questionnaire survey using convenience sampling to select young consumers in the age group of 18-30 in Pune. Through simple statistical analysis it was possible to conclude that product placement in Web series influences recall.

Key Words: Brands, Product Placement, Digital, Web series, Brand Awareness, Brand recall

Introduction

Advertising made in the traditional media has lost its once golden effectiveness.

Oversaturation of the traditional media, decreasing attention span and increasing consumer cynicism, has necessitated that marketers use different and evolving forms of advertising products, services or brands and break the clutter.

Although brand placements are usually paid for, audience do not normally associate placements as the paid messages. Thus, placements are unique combination of promotional communication tools viz Advertising and Publicity wherein a brand name, product, package, signage, or other trademark merchandise is inserted into and used contextually in a motion picture, television, or other media vehicle for commercial purposes.

Product placement is a very common advertising strategy in today's world. Holly having Breakfast at Tiffany's, or James Bond arriving in an Aston Martin DBS V12 in Casino Royale are typical examples of product placements in films. Any popular Hollywood or Bollywood movie that you pick today will have at least one product integration in it.

As per WARC, the Global Product Placement Spending Forecast reported that the fastest growth was seen in China and the Indian market recording expansions of more than 20%.

The expansion of product placement into various Internet platforms, new social media and interactive games is gaining more attention. With the growth of internet, have become very popular in the past few years. According to Wikipedia, a is a series of scripted or non-scripted videos, generally in episodic form, released on the Internet and is part of the web television medium. Each episode of a is commonly known as a "Webisode".

The advent of online channels such as Netflix and Hotstar and platforms such as Youtube, Vimeo and Facebook play a major role in making this possible. Netflix's first self-commissioned original content series House of Cards was released in 2013, and the company has dramatically grown its original content since that time. House of Cards are the first Netflix Originals i.e. a launched exclusively on Netflix. In India TVF, AIB and Y Films are some of the popular producers of .

Of late, Product placement is increasingly gaining momentum in in India with an aim to influence recall and thereby consumers' perception towards the brand. Accordingly, to Vikas Katoch, founder and CEO, Adomantra Digital the share of ' in digital is less than 5% of the total digital ad spends in India. But it is expected that 10-15% of digital advertising

spend will be diverted to ' in next two years through integration of brand stories with content, product placement, creating characters for brands, integrated logo unit, pre-roll ads, etc.

For example, Tata Tiago is an integral part of the popular TVF Tripling. According to vidooly.com, TVF Tripling had crossed 19 million views and Y Film's Bang Baaja Baarat 25 million views and and TVF's Permanent Roommates 31 million views by the end of 2018. Similarly VelvetCase – an online jewellery store is always a part of the plot in the web Dice Media – Little Things which depicts a cute urban love story.

As product placements appear in newer media like computer, video, digital, online, and simulation games, this research paper is an attempt to find out the brand recall of Product placements in .

Throughout this paper, some terms are used as synonymous: product placement and brand placement, and all of those can be defined as the use of specific products or brands in the movie script, also in television programs, and other media (Solomon, 2008). The various theoretical concepts and studies outlines them clearly.

Literature review

Boone and Kurtz (1998) said that to have a more effective communication with their target market, the marketing professionals mix different promotional elements during the development of a promotional strategy. The same authors also explain that 'promotion' is the communication link between those who want to buy and the ones who want to sell, and several ways are used to send messages about their products or service, or even about their idea communicated in a direct way, or an indirect way.

Product placement, also known as brand placement, can be defined as an indirect way of advertising. Product placement is defined by Balasubramanian (1994) as a paid product message aimed at persuading audiences through the planned inclusion of a branded product into a movie or television program.

(Gupta and Lorf,1998). They describe product placement as the integration of brands into films in return for money or some form of promotion.

The media programming Karrh (1998) defines it as a paid inclusion of branded products or brand identifiers, through audio and/or visual means within mass media programming.

(Panda, 2004) defines brand placement as “commercial insertions within a particular media program, intended to heighten the visibility of a brand, type of product or service”.

(Hudson, 2006) considers whether or not branded entertainment is a new technique, or just another form of product placement. In the last few decades product placement has matured and become more sophisticated. Branded products are no longer just 'placed'; there is a convergence of advertising and entertainment making a stronger emotional connection with the consumer. A conceptual framework for understanding the various forms of product placement is presented, and this highlights the key influences on the effectiveness of this fast-growing marketing phenomenon. The important management issues related to product placement are considered; issues related to measurement, control, and ethics. The article then concludes with recommendations for further research.

(Lehu, 2009) says that with technology-empowered consumers increasingly able to skip television ads, brand owners are turning more and more attention towards product placement as an alternative means of connecting with their target audiences. He outlines the origins of and reasons for product placement and brand integration.

(Horrigan, 2009) described Branded Entertainment, as a fusion of advertising and entertainment into one marketing communications product that is integrated into an organisation's overall brand strategy intended to be distributed as entertainment content with a highly branded quality.

(Ginosar and Levi-Faur, 2010) explains product placement as a form of promotion wherein there is a purposeful incorporation of commercial content into non-commercial settings, that is, a product plug generated via the fusion of advertising and entertainment.

Even though product placement was named and identified formally only as recently as the 1980s, product placement is not new (Balasubramanian, 1994).

(Newell, Salmon, and Chang, 2006) Originally, product placement served as a way for movie studios and television networks to reduce the cost of production through borrowed props and first appeared in Lumiere films in Europe in 1896.

(The Economist, 2005) Beginning in the 1930s, Proctor & Gamble broadcasted on the radio its "soap operas" featuring its soap powders. Also, television and film were used by the tobacco companies to lend glamour and the "right attitude" to smoking. However, due to poorly organized efforts and negative publicity about the surrender of media content to commercialization, product placements were relatively dormant after the Depression.

According to Balasubramanian, Karrh, and Patwardhan,(2006) Product placements were recatalyzed in the 1960-70s with a growth spurt during the 1980s and 1990s.

It's evident that the meaning and nature of product placement has been evolving over the years.

According to Kureshi (2010) product placement research in traditional media like television and film is decreasing as product placements appear in newer media like computer, video, digital, online, and simulation games. Earlier examples of product placement were more focused on the mediums of film and television earlier and now on world web platforms. García-Pujadas (2010) states that are a tool of brands to connect and relate with different publics.

A recent interesting view defines product placement as the merge of entertainment and advertising by plugging a product within engaging media content. (Williams et al., 2011)

Arjona (2012) considers branded as an innovative advertisement resource in newer media especially targeted to young population segments resulting in a higher reach of brand stories. Arjona (2012) also highlights the viral capacity of these audio-visual formats, online, with a short duration and ability to integrate content with branding.

(Costa-Sánchez, 2014) Brand stories told through fiction, social networks and online platforms are part of the increasing trend of advertisement creative strategies.

India – Digital growth and advent of Web series

In India, the digital revolution in India is largely driven by smart phone penetration, the roll out of 4G, reducing data costs and thereby increasing time spent on mobile phones. Digital advertising is thus expected grow at a faster clip as against the traditional media over the next three years.

According to a report on digital advertising by Dentsu Aegis Network, the Indian digital advertising industry, currently pegged at around Rs 8,202 crore, is slated to see a growth at 32% CAGR to reach Rs 18,986 crore by 2020. The report also forecasts that digital media spends, currently contributing 15% of the total advertising pie, will reach 24% of the entire market by 2020 according to an EY report, 'Digital Opportunity: India Media and Entertainment.' Also, the digital video market is expected to be worth Rs 160 crore by 2022, according to Media Partners Asia.

This shows the possible growth potential of brand placement on various digital platform including eb series. Currently, the share of ' in digital is less than 5% of the total digital ad spends in India.

OTT players are catering to the millennial needs by integrating brands through product placements and/or content integrations. SonyLIV rolled out a new home improvement show, House Proud, in association with Asian Paints and home accessories e-commerce business CuroCarte. Also SonyLIV partnered with digital entertainment company Pocket Aces, which earns its revenue by syndicating content to various OTT players like Uber rival Ola Cabs and airlines like Etihad and Jet, as well as selling merchandise based on the series. Pocket Aces partnered with Dice Media and Pepsi Co brand Kurkure to create a called 2by3.

Measurement of effectiveness of Product placement

The measurement of effectiveness of Product placement has been the subject of much discussion. Academics suggest that message impact should be assessed at recall, persuasion, and behavioural levels (Balasubramanian 1994). Amongst marketers, the two important and used method of brand unaided recall and brand recognition are the two most popular means of assessing placements (Karrh et al. 2003).

According to Morton & Friedman (2002). Product placement can contribute to build awareness, generate recall and shape attitudes. Relationships between Product placement and brand recall helps to understand twinning factors.

(Edwards, 2006) documents the prevalence of product placement in prime-time television, while also providing crucial criteria to consider in tackling the measurement issue of this emerging industry. Content analysis was used to capture placement techniques in various types of programming, including storied programming (e.g., dramas and situation comedies) and non-storied programming (e.g., news programs, game shows, and sporting events), as well as to examine differences between plugs and placements. Consumer product placements were differentiated from other types of brand placements, such as services, sports, and entertainment. Finally, the growth placements were contrasted with data from five years earlier. The findings reveal many similarities with earlier research, but also suggest that much work it still needed to maximise the effectiveness of product placements among marketers. Implications for consumer researchers and industry professionals are provided.

Many studies have provided information about the effects of product placement on the consumers' memory. Product placement can be the source of long-term brand recalls in certain instances: when product placements prompt more conscious processing during

their exposure, long-term memory is stimulated, originating lasting brand recalls (Balasubramanian, 2006).

(Cristel Antonia Russell; Investigating the Effectiveness of Product Placements in Television Shows: The Role of Modality and Plot Connection Congruence on Brand Memory and Attitude.). This article develops and tests a conceptual framework for the practice of product placement. The empirical testing introduces a controlled experimental approach called the theater methodology. Results show that the modality of presentation (visual and auditory) of the placements and the degree of connection between a brand and the plot of the show interact to influence memory and attitude change. Memory improves when modality and plot connection are incongruent but persuasion is enhanced by congruency. While congruous placements appear natural, incongruent placements adversely affect brand attitudes because they seem out of place and are discounted.”

(The Effectiveness of Product Placement: A Field Quasi-experiment by Artur Cholinski, International Journal of Marketing Studies) Marketers are increasingly interested in the effectiveness of product placement and they want to know the rules which enable positive impact on consumers. This study shows that not only laboratory experiments but also field experimental designs find that product placement can be an effective marketing communication tool in the scope of improving brand awareness, influencing brand attitudes and brand choice. But it is very difficult to find simple rules which will cause product placement to be effective. Such rules can only be applied in the case of improving brand awareness. If a brand is placed in a film prominently, with both audio and visual components, and is highly connected to the plot (additionally a brand interacts with a movie hero) such product placement will probably significantly increase awareness of the placed brand among viewers, irrespective of other placement attributes. But making prominent, audio-visual, highly connected to the plot product placement does not guarantee positive impact on attitudes and brand choice. There are other factors (product placement creativity, image context, brand and product category characteristics etc.) which cause two product placements that are similar in execution (e.g. prominent, audio-visual, highly connected to the plot) to result in totally different effectiveness of influence on attitudes and brand choice. Thus, all generalizations of product placement influence on attitudes and brand choice which include only such factors as modality, prominence and plot connection are a big simplification which does not reflect the whole diversity of factors which affect product placement

effectiveness. On the contrary, such generalizations can be justified in the case of product placement influence on brand awareness.

The above literature helps us in summarising that Product placement is a very old form of advertising which has evolved over the years and also that the effectiveness of a Product placement is very difficult to measure as it is a very psychological process involving factors such as awareness, knowledge, purchase intention, recall and recognition. But it's safe to say that it entirely depends on the objective of the marketer and whether or not that objective is being fulfilled through the medium of product placement in that particular film, TV show or in the present situation.

A report by Polar for India stated that consumer awareness of a brand increased to 69% after engaging with branded content and purchase intent increased to 51%.

The review of literature also makes it clear that though Product placement in digital media and new social media is increasing, there still has not been much academic research about the correlation between the effects that Product placements in digital media have in creating consumers' Brand Awareness

This paper aims to analyze how brands are showed in and how efficient Product placements are, evaluating if the audience can recall, or not, the brands or products that appeared in the .

For purposes of context of this article, definitions for Brand awareness and Brand recall, brand attitude and are presented below:

- Product placement--also known as product brand placement, in-program sponsoring, branded entertainment, or product integration--is a marketing practice in advertising and promotion.
- Brand Awareness - refers to the extent to which customers are able to recall or recognise a brand. Marketers typically identify two distinct types of brand awareness; namely brand recall (also known as unaided recall or occasionally spontaneous recall) and brand recognition (also known as aided brand recall)
- Brand Recall – Brand recall refers to the ability of the consumers to correctly elicit a brand name from memory. Brand recognition refers to the ability of the consumers to correctly differentiate the brand when they come into contact with it. This does not necessarily require that the consumers identify the brand name. Instead, it means that consumers can recognise the brand when presented with it at

the point-of-sale or after viewing its visual packaging. Marketers aim to achieve these using product placements in different mediums such as films, television shows and now .

- Webisode : A is a series of scripted or non-scripted videos, generally in episodic form, released on the Internet and is part of the web television medium. Each episode of a is commonly known as a “Webisode”.

Research Methodology

Statement of The Problem

The research study evaluates the effectiveness of product placements in Indian Web series on the basis of brand recall.

Research Questions

- Is there a brand recall amongst the audience of through product placement?

To find answer to this question, the researcher reviewed existing literature and articles and also conducted an online survey through a questionnaire. The respondents who watch Web series were asked about their favourite series and further asked to remember the names of certain brands used in specific scenes of the Web series. A screenshot of that scene with the blurred brand was shown to get the answer. This helped the researcher derive whether or not there is a brand recall among the audience of brand placed.

- Do brands successfully reach its target audience through product placement in?

In order to find the answer to this research question, the researcher asked the respondent if the brand that they recall is relevant to them or not. If the consumer is able to recall the brand but does not intent to buy or refer it to others makes the value of the brand recall zero. Hence this is the second question that the researcher seeks to answer through the survey.

Data Collection and Sampling

Top 10 Indian namely Bang Baaja Baarat, Permanent Roommates, Pitchers, Ladies Room, Girl in the city, Alisha, The Sweet Breakup, Sexy and I know it, Tripling, Little Things, Yeh Meri Family were selected basis the popularity and number of product placements in the Web series. A pre tested questionnaire and a pilot survey were used for collecting the data with help of fine-tuned questionnaire.

The sampling method used was a non-probability sampling method – i.e. consecutive sampling. Consecutive sampling is very similar to convenience sampling except that it seeks to include ALL accessible subjects as part of the sample. This non-probability sampling technique was the most suitable as it included all subjects that are available that makes the sample a better representation of the entire population. In this case, all young consumers that the researcher could reach through an online questionnaire who belong to the target group answered the questionnaire representing the entire target group.

This study was targeted at young Indian consumers from two age groups viz Young Adults – Age 18 to 24 and Young professionals – Age 25 to 30. This is because the series are viewed mostly by this target audience. Also, this is the audience that has recently started to or is going to start having a lot of purchasing power. Thus, this age group is most apt for this study.

The respondents were from Pune, representing urban youth population of the country, without any restriction to gender. This is because most are built around urban plots and are aimed at urban population.

Since the structured questionnaire was built around it is important for the respondents to have watched at least one or more Indian Web series.

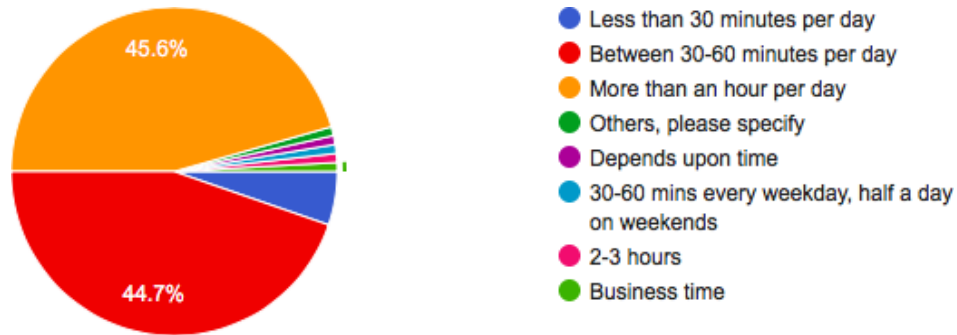
Scope of the research

The current study highlights only one aspect to evaluate effectiveness of the Product placements on i.e. brand recall. The un-aided brand recall is taken into consideration as a measure of effectiveness of product placements. The study is restricted to a small sample of 115 respondents from urban population of Pune.

Data Analysis and Interpretation

The data was evaluated and processed through excel sheet analysed using simple percentages of respondents answering the various options and by making tables and charts for presentation. Based on the data findings and analysis, conclusions were drawn.

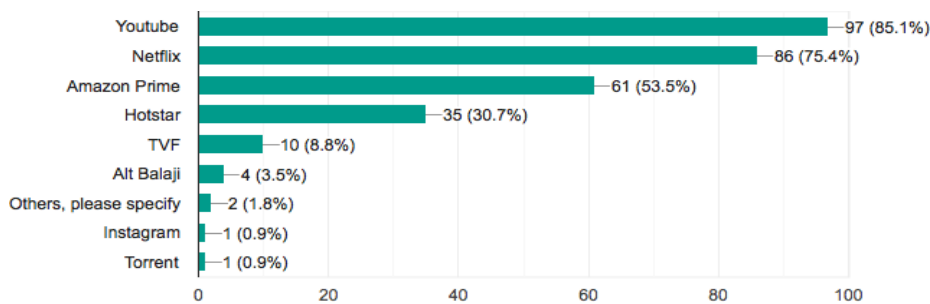
- The target audience chosen was between the age of 18-30 of which 93% of the respondents were between the age of 18-24 years of age out of which over 59% of the respondents were female.
- Time spent watching visual entertainment content everyday



Analysis: 45.6% of the respondents spend over an hour per day in consuming visually entertaining content.

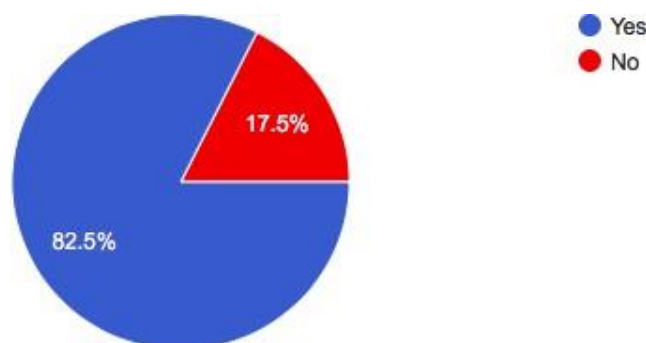
Inference: The impact of product placement in is more likely to be noticed effectively since consumers seek visual entertainment almost an hour per day.

● Preferred Internet platforms to consume entertainment content:



Youtube is the most preferred internet platform to consume such content. This can be attributed to the fact that it is a completely unpaid streaming service unlike Netflix and Amazon Prime. Netflix is the most preferred after YouTube, followed by Amazon Prime.

● People who have watched Web series:

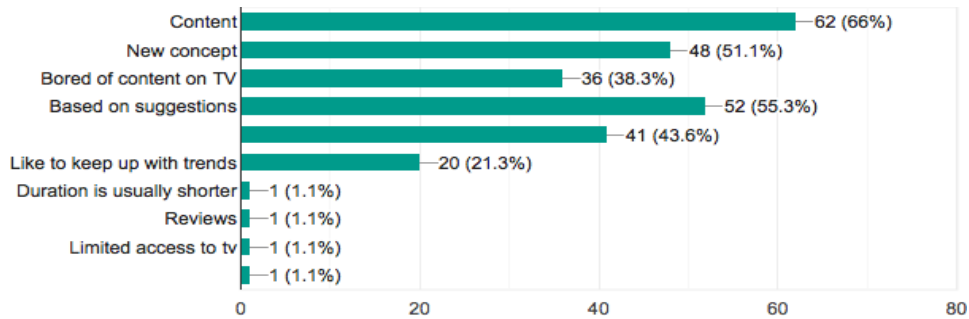


Observation: 82.5% of the respondents watch.

Inference: This supports the need to study the effectiveness of the product placement with increasing viewership. Also indicates good opportunities for advertisers to explore

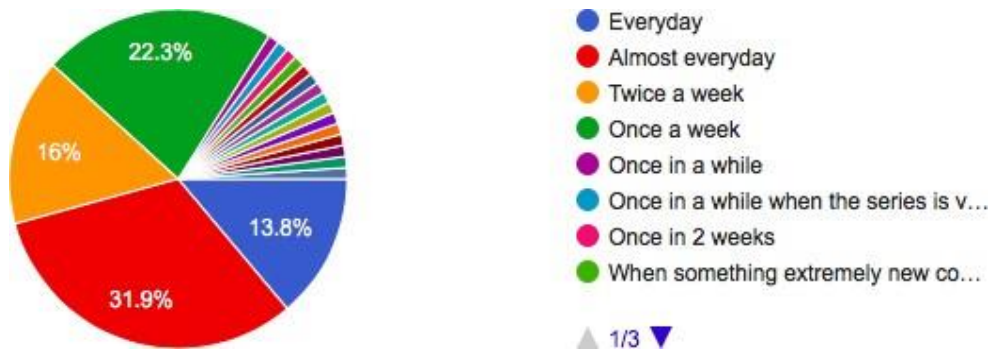
to break the clutter and create impact. Also the questionnaire was only administered to respondents who view.

- Reasons for watching a among the respondents:



The most important reason for watching is its content. This goes to show the importance the audience gives to the story and the concept.

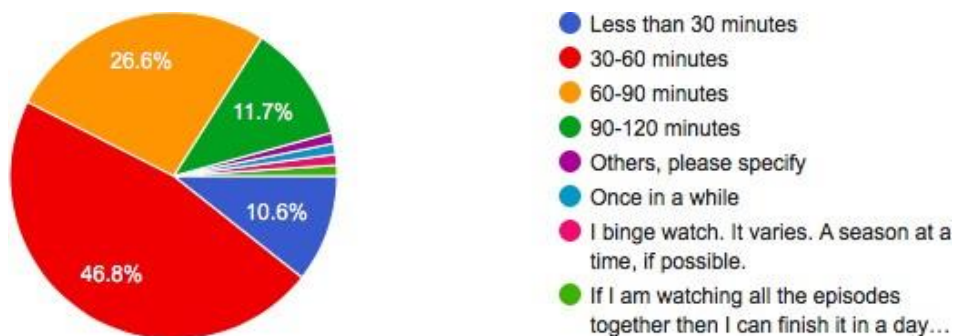
- Regularity of watching :



Analysis: 45.7% of the respondents watch every day or almost every day.

Inference : This shows that the audience is high and only increasing with time. Thereby giving opportunity to advertisers to capitalise on this opportunity.

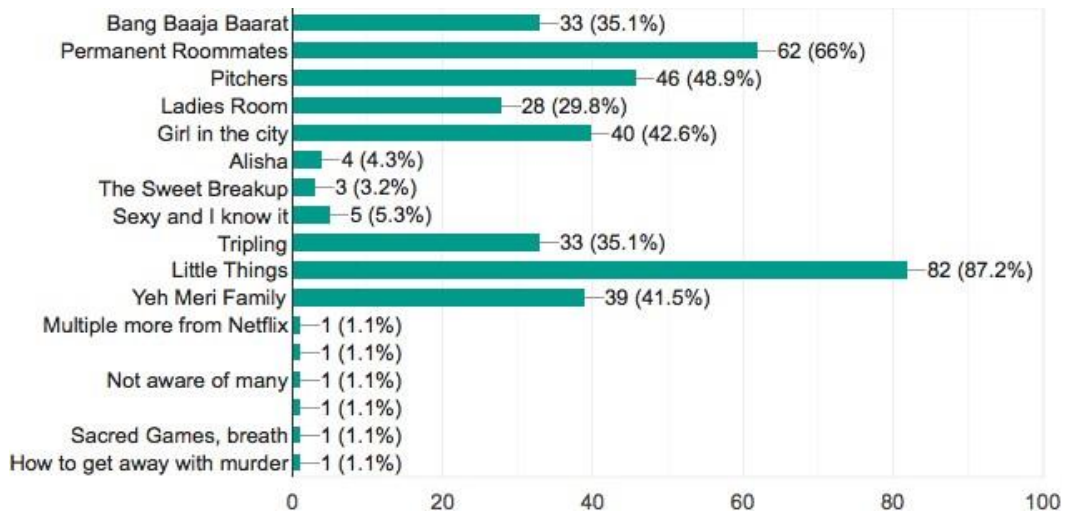
- Time spent watching Web series



Observation: Almost 50% of the respondents spend about 30-60 minutes per day or more in watching Web series. Over 80% of spent between 30-90 minutes each day.

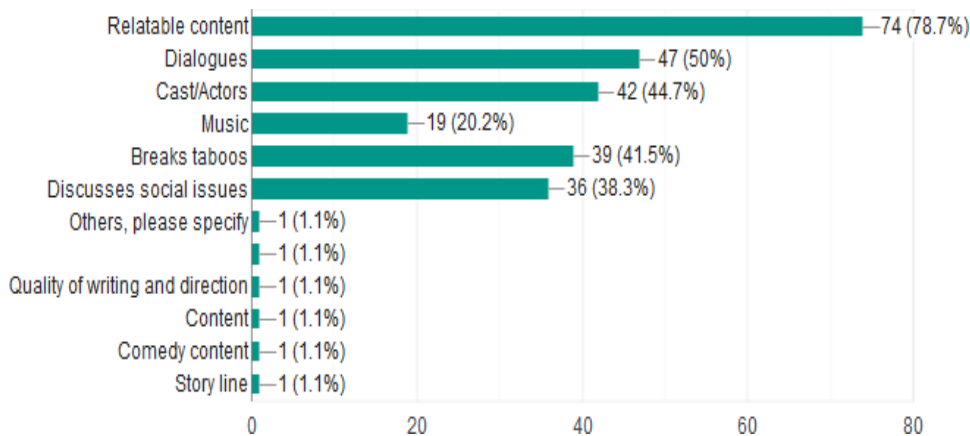
Inference: The impact of product placement in Web series is more likely to be noticed effectively. Since consumers spend considerable time per day watching; the time devoted being concentrated thus increasing the chance of the product placement to be noticed.

- Top three among respondents: (Top 3 choices)



Observation: Over 82% respondents mentioned Little Things followed by Permanent Roommates and Pitchers as their favourite Web series.

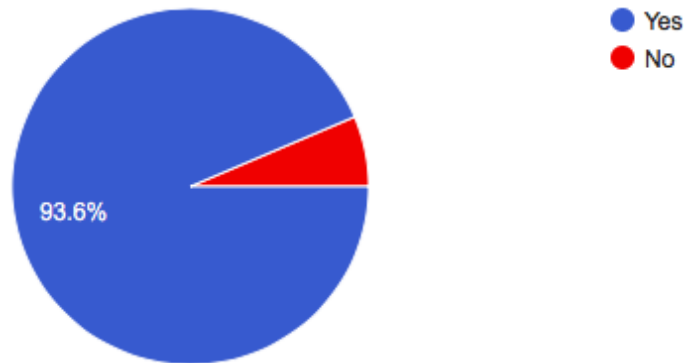
Inference: This justifies the selection of the same for the study, as they are popular ones.



Observation: Relatability of content and the storyline is the most important factor for audience in a watching a Web series.

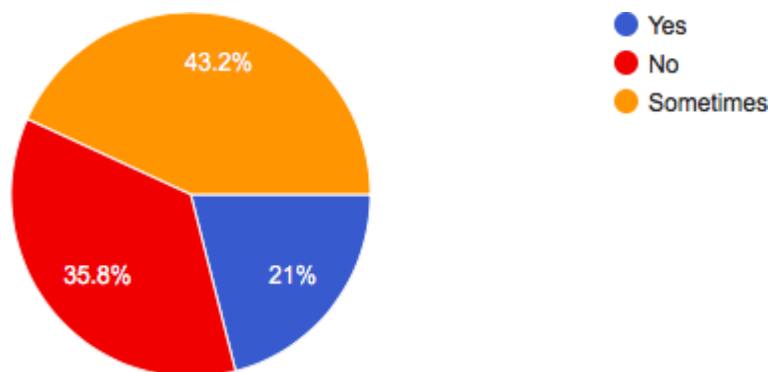
Inference: This leads to a higher recall among audience. Marketers need to emphasize on these factors in order to be more effective. Higher recall can be achieved if the product placement is intrinsic to the storyline that it simply merges with the film

- Recommendation of favourite Web series to others:



93.6% of audience recommend their favourites to others which makes recommendations the best source of advertising. They increase the probability of virality for advertisers.

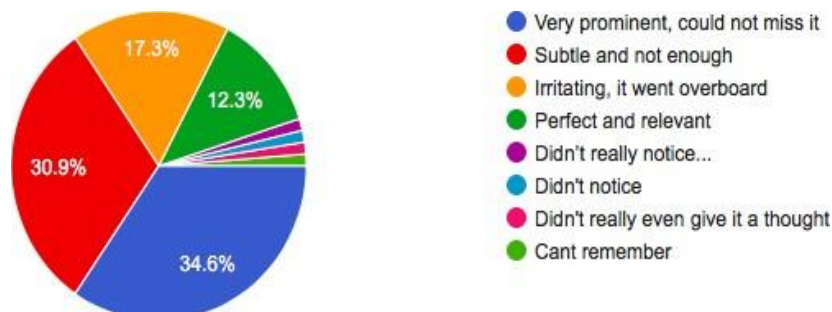
- Relevance of product placements to the respondents:



Observation: Only 21% respondents find it relevant, and around 35% find it irrelevant.

Inference: Marketers need to work on making the product placements more relevant for the audience to influence brand attitude.

- Product placement as observed by respondents:



Inference: Marketers need to ensure that the placements are subtle and fit into the storyline, otherwise audience find it irritating and irrelevant. Overtly usage of product placement may annoy the consumers and cause negative attitude towards the product.

- Brand recall for product placement

	Total	%age
No. of people who mentioned as their favourite	96	
No. of people who named brands correctly	59	61%

Observation: Over 61% respondents could recognise brands in the top three that they mentioned as favourites .

Inference: Product placement in shows high recall, providing the advertisers an innovative platform for more scope for garnering attention and interest amongst the audience.

- Intention to buy / refer to others:

	Total	%age
No. of people who mentioned as their favourite	96	
No. of people who named brands correctly	59	61%
No. of people who recognised it correctly and will refer/buy the products	12	20%
No. of people who recognised it correctly and may refer/buy the products	28	47%

Observation: Only 20% respondents were willing to consider purchase of the brand placed and/ or refer it to others.

Inference: 47% respondents may buy / recommend and around 33% will not buy/ recommend which means that advertisers need to create positive brand attitude and supports other research which mentions that brand recognition may not necessarily lead to brand attitude and intention to buy.

Limitations and Areas for Future Research

This study is very preliminary to support the secondary data and various reports in media. As it is for every study, this study had the following limitations:

- The size of the sample was relatively small – 115 - a bigger sample would probably enhance the reliability of the research
- The effectiveness of any product placement can be measured by various parameters. For this study, only brand recall is being used to measure the effectiveness. There is

a need to study role of demographic factors, brand familiarity, celebrity, and other stimulus factors.

- Apart from this, the need to study use of language and role of ethics is an area to be explored.

Conclusion:

Expansion to the online universe, social networks and interactive platforms in India has seen a progressive increase in the number of advertisers that use branded in their communicative strategy.

Over 82% of the respondents use for which goes to show the drastic change in the preference of platform used over the years. This change can be attributed to the fact that internet has become cheaper and more available. This has also led to an increase in online streaming services like Netflix, Amazon Prime, Hotstar etc.

Innovation and creativity will play a pivotal role in creating recall and transmission of the brand values.

Web series has an ability to be an innovative, subtle, minimalist and an effective medium to create and maintain close bonds with their audiences especially that tends to reject the presence of traditional and conventional advertisement.

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**COMPARATIVE STUDY ON PROVISIONS AND ACTUAL
EXPENDITURE ON CSR ACTIVITIES DONE BY THE
COMPANIES IN INDIA**

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Research Guide
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ABSTRACT:

Now a days, Corporate Social Responsibility (CSR) has gained immense importance and also implemented as a business strategy. Long gone is the philanthropic approach that used to be in the behaviour of the companies. Instead of just issuing cheques to the favoured charity institution or NGO, there is a corporate initiative behind every CSR move. As CSR involves considerable amount of share of stakeholders' profit, it is not spent blind folded. CSR expenditure has enormously increased its avenue and almost covering all areas specified by section 135 of Companies Act 2013.

This manuscript analyses the three years expenditure and tries to find out the gap between the compulsory the budget the company had to spend and the actual budget the company has spent over the CSR activities of the company. The companies considered for this activity are the BSE top 100 companies as they fall in the criteria according to Section 135 of the Companies Act, 2013. It is also tried to find out what are the probable reasons the companies are not able to spend the prescribed budget for the said year.

Key words: *India, Corporate Social Responsibility, BSE Top 100 companies,*

Introduction:

The idea of business is to operate in society and try to earn profit in order to face and survive in the competitive environment. As profit is the only way to make money for the shareholders of business it should be the primary and top most important motive of business. But while dealing with Profit, the basic motive of business, it should not be the sole goal to run the business. While blending the social responsibility with profit motive, it should come down to as to operate in socially responsible manner. In short, CSR includes the responsibility of business towards, Stakeholders, Employees, Customers, Environment and Ethical Functioning.

Corporate Social Responsibility:

Corporate Social Responsibility has emerged from being just the philanthropy and has become a daily routine for businesses. As there is mandatory money spending involved and a certain amount of net profit is allocated for such spending, CSR has emerged as an area of concern for the companies. Not just the monetary involvement but the boost CSR is giving companies for the Brand Enhancement and Employee Empowerment is resulting in the addition of competitive edge for the companies over its competitors.

Definition of CSR

Corporate Social Responsibility is defined by many authors in many contexts. Some of them are summarised as below:

1. The World Business Council for Sustainable Development in its publication *Making Good Business Sense* by Lord Holme and Richard Watts, used the following definition:

Corporate Social Responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large.

2. The European Commission states,

A concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment. A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis.

3. Stanford University's Graduate School of Business defines CSR as,

Corporate Social Responsibility (CSR) is an organization's obligation to consider the interests of their customers, employees, shareholders, communities and the ecology and to consider the social and environmental consequences of their business activities. By integrating CSR into core business processes and stakeholder management, organizations can achieve the ultimate goal of creating both social value and corporate value.

Thus, these definitions clear the base of corporate social responsibility and also explain the need of integration of CSR into the Strategic Management.

Scope and Importance of Study:

The study basically concentrates on the analysis of the CSR spending of the companies on the basis of the Strategies drafted by the management. It also gives a overview about

how CSR has emerged from being just a philanthropy to a full proof strategy to follow to ensure that the objectives those were planned by the management are achieved in the course of the business.

According to Section 135 of Companies Act 2013,

1. Every company having net worth of rupees five hundred crore or more, or turnover of rupees one thousand crore or more or a net profit of rupees five crore or more, during any financial year shall constitute a Corporate Social Responsibility Committee of the Board consisting of three or more directors, out of which at least one director shall be an independent director.
2. The Board's report under sub-section (3) of section 134 shall disclose the composition of the Corporate Social Responsibility Committee,
3. The Corporate Social Responsibility Committee shall –
 - a. Formulate and recommend to the Board, a Corporate Social Responsibility Policy which shall indicate the activities to be undertaken by the company as specified in Schedule VII
 - b. Recommend the amount of expenditure to be incurred on the activities referred to in clause and monitor the Corporate Social Responsibility Policy of the Company from time to time.
4. The Board of every company referred to in sub-section (1) shall –
 - a. after taking into account the recommendations made by the Corporate Social Responsibility Committee, approve the Corporate Social Responsibility Policy for the company and disclose contents of such policy in its report and also place it on the company's website, if any, in such manner as may be prescribed and
 - b. Ensure that the activities are include in Corporate Social Responsibility Policy of the company are undertaken by the company.
5. The Board of every company referred to in sub-section (1), shall ensure that the company spends, in every financial year, at least two percent of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility Policy: provided that the company shall give preference to the local area and areas around it where it operates, for spending the amount earmarked for CSR activities.
6. In the light of the above provisions, it is also provided that if a company fails to spend such amount, the Board shall, in its report made under clause (o) of sub – section (3) of section 134, specify the reasons for not spending the amount.

In the light of above provisions, it is clear that considerable amount is involved in the management of CSR activity. Also, this amount is spent out of the stakeholder's money. Therefore, to ensure its best and optimum use it is necessary to analyse and check whether the amount is spent according to the CSR policies formed.

Background of Study –

Earlier when companies were not so keen about CSR activities and spending, some big companies like Tata Motors were doing their share of CSR. IT companies like Wipro Technologies and Infosys had their Philanthropy wings in forms of Infosys Foundation and Azim Premji Foundation.

As CSR has come under the legal scanner, it became necessary to have a picture about how the companies are behaving where it comes to CSR spending.

Companies have to operate and flourish in the competitive environment. They have to adopt and implement every single policy that can add the competitive advantage of the firm. It is very important for the firms to contribute to the welfare of the society while taking resources from the society. The company which understands the social responsibility also gains the positive edge from the society. This adds to the brand image and brand value of the company.

In this light, the while doing the amendments, companies law also noticed the need to concentrate on the contribution of company to the overall social development. There were companies which has their role in the development of the society but these companies were very few. After the amendment of companies act in 2013, the CSR has taken a central stage in the activities of the companies.

Due to higher use of Internet, any user can access the company at any time. The companies Act provided that the CSR Report should be prepared and published over the internet and thus, the activities of the companies started becoming visible for the stakeholder, investors etc. By addition to the welfare of the society, companies also started addition to its own wellbeing.

Research Methodology:

There is not a proven or single methodology available for the CSR Research. Most of the CSR activities were not measured and there is no standard measure available. CSR can be measured by only money spent on a particular activity. But no two activities by companies can be measured by same method. According to Authors, Alfreda

Sapkauskiene and Sviesa Leitoniene, in their Research Paper CORPORATE SOCIAL RESPONSIBILITY RESEARCH METHODS ANALYSIS (Year 2014) there are three methods to analyse the Social data i.e. Content analysis, Correlation Analysis and Regression Analysis. Amongst which Content Analysis is the method which is widely used.

The content analysis method is primarily used to determine nature and scope of social information. Different researchers use different techniques of content analysis (words, sentences, and the number of pages of disclosure index) and different classification of social information indicators therefore the different research results are difficult to compare. The Correlation and Regression methods measure the Impact of CSR activities on the Reputation and Financial Performance of the Company.

Also, while coming to a conclusion, different sources of information are also used. Sources like CSR Reports, Sections of Annual Reports or Both, Websites, Sections of Annual Reports, Sustainability Reports etc are used to compilation of data and information.

With reference to this research paper, The CSR Expenditure data available on the websites of the company is considered and drawn from the annual reports of the company. In addition to this basic data, various surveys done by various reputed agencies are also considered.

Objectives of Study

1. To analyse the CSR expenditure of companies.
2. To check whether there is any unspent amount and what is the action taken against such companies.
3. To find out if there is a proper strategy to spend the CSR budget or it is still just the philanthropy?

Hypothesis:

From the Literature review it can be hypothesized as companies are implementing the CSR strategy after CSR fund mandate and CSR is touching all the fields specified by the section 135 of the companies Act, 2013.

Limitations of study

1. The data collected is the secondary data available on the internet in the form of annual reports of the company.

2. Some surveys done through reputed agencies like Price Water House Coopers and KPMG and Institute Investor Advisory Services are referred.

CSR concentrates on variety of areas of social development. But as the study is based on the Secondary data, the area wise expenditure is not available.

Data Collection and Analysis

Data collected for this manuscript is the secondary data derived from various surveys, as the factory wise spending on CSR is not available in the annual report of the companies. For this study BSE top 100 companies are selected and data is compiled from their annual reports. While compiling, data for last three years i.e. 2015, 2016 and 2017 is taken into account to give a clear picture of the recent trends in the field of CSR.

Data is analysed using simple statistical tools and presented in the form of figures and tables.

Data Presentation and Interpretation –

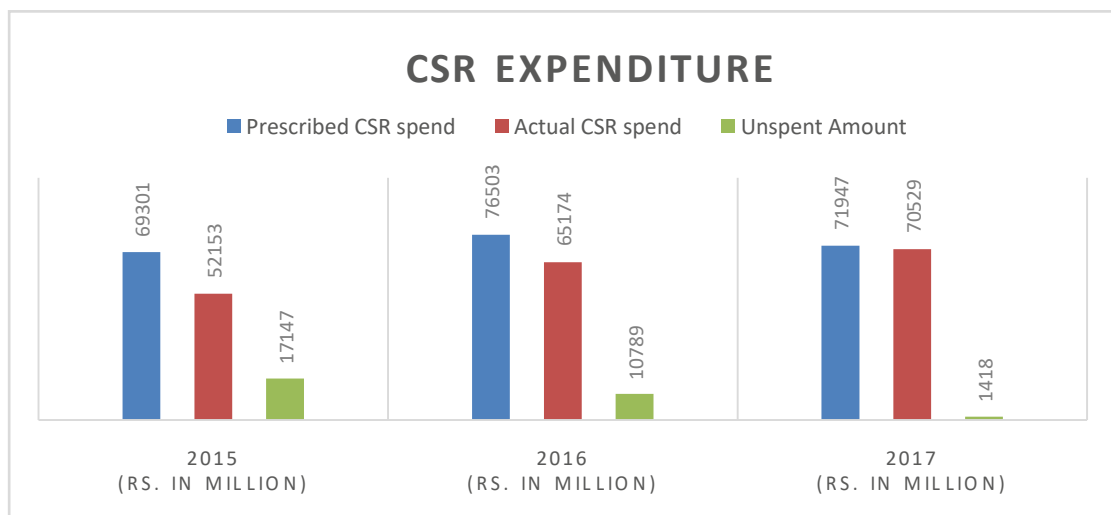
After compilation of data it is presented in the form of figure as below.

Table No. 1

Details of CSR expenditure for the year 2015,2016 and 2017.

	2015 (Rs. In Million)	2016 (Rs. In Million)	2017 (Rs. In Million)
Prescribed CSR Expenditure	69301	76503	71947
Actual CSR Expenditure	52153	65174	70529
Unspent Amount	17147	10789	1418

Source: CSR Reporting Survey, KPMG 2017



CSR expenditure for the years 2015, 2016 and 2017.

Observation and Interpretation

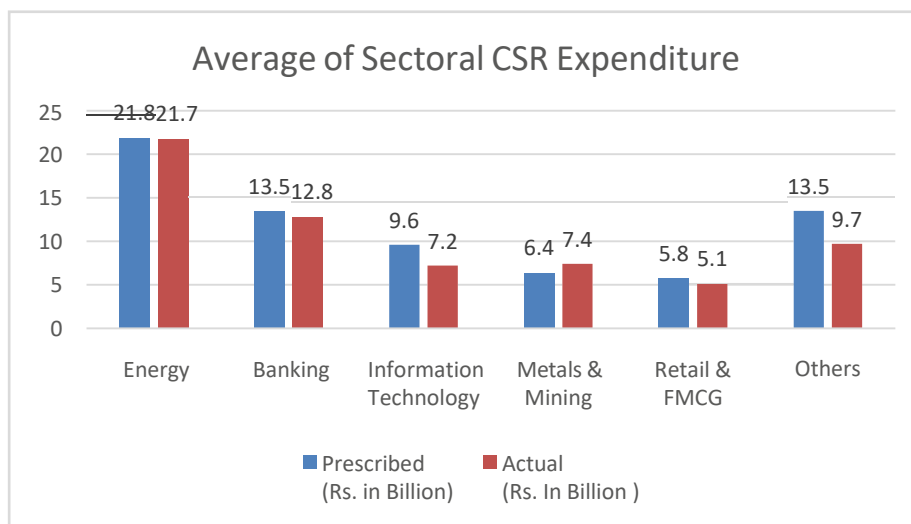
After analysing the above table and chart, following observations are made.

1. It can be seen that the amount to be spent on CSR activities is more in the year 2016 compared to the years 2015 and 2017.
2. It is also observed that there is an increasing trend in the amount spent for the CSR activity, which can be good for the social development.
3. It is also observed that there is a decreasing trend in the unspent amount on CSR, which indicated the improved approach of companies towards CSR and effort to contribute to social development on the part of the companies.

The figures stated above show the total expenses made by the BSE listed top 100 companies in the three years. While analysing further, sectoral expenditure was found and it is as below. For the purpose of presentation and simplification of data analysis, the sector wise CSR expenditures are averaged for 3 years.

CSR Expenditure by Sector	Prescribed (Rs. in Billion)	Actual (Rs. In Billion)
Energy	21.8	21.7
Banking	13.5	12.8
Information Technology	9.6	7.2
Metals & Mining	6.4	7.4
Retail & FMCG	5.8	5.1
Others	13.5	9.7

Source: National CSR Portal



Sectoral CSR Expenditure for the years 2015,2016 and 2017

Observation and Interpretation:

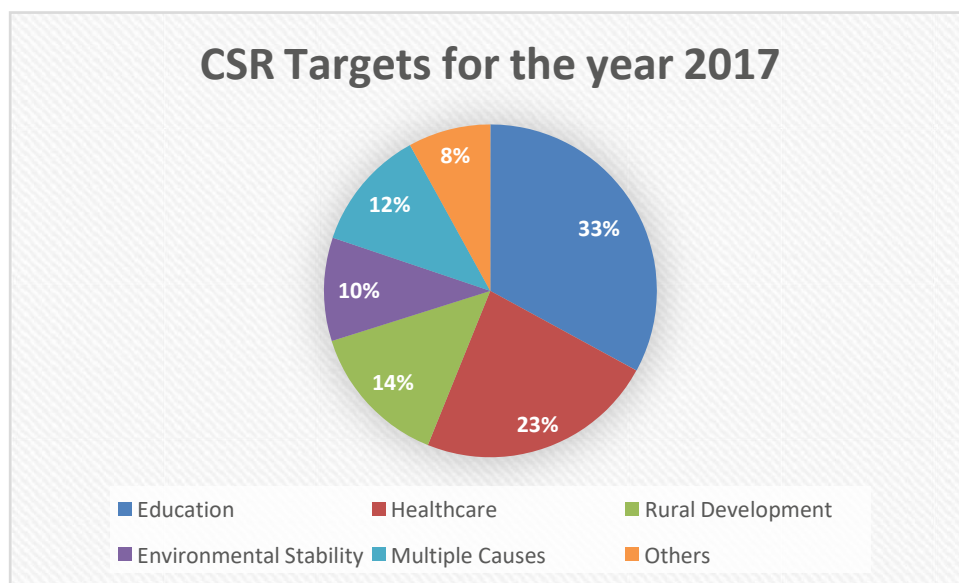
It can be seen how various sectors are contributing for CSR activities.

1. It is Observed that Energy Sector is leading in all sectors with regards to CSR expenditure. It has small gap between prescribed expenditure and actual expenditure.
2. It can also be observed that Retail and FMCG sector has very less to contribute. But whatever they are contributing, there is less gap in the prescribed expenditure and actual expenditure.
3. What is contradictory in the above figure, is the Information technology sector which has a huge gap compared to other sectors between prescribed expenditure and actual expenditure. The information Technology sector need to do serious analysis about the CSR activities they are undertaking.

Following are the target expenditure for CSR for the year 2017-18 which will be assessed at the end of the year.

CSR Targets for the year 2017	Rs. In Billion
Education	22.6
Healthcare	15.9
Rural Development	9.6
Environmental Stability	6.9
Multiple Causes	8.1
Others	5.5

Source: NGOBOX.com



CSR Target Expenditure for the year 2017

Observation and Interpretation:

The table and the pie chart above give the trend of CSR Target expenditure to be undertaken for the various activities in the year 2017.

1. It is observed that Education holds the major part of CSR Target Expenditure followed by the Healthcare sector.
2. Rural development holds the third position in the target spend while other causes like women empowerment and child malnutrition take the least target at 8%.

Conclusions:

From the above data and discussion, it is concluded that,

- CSR is not an ad hoc charity anymore but it is a well-defined strategy.
- CSR is contributing towards the Brand image of the company and creating a positive impact on overall image of the company. Therefore, it is getting good support from stakeholders.
- Environment and education are the primary area of concentration for CSR that need strong actions to have a positive impact. There is still much scope to the improvement in the area of recycling the resources and waste management.
- Earlier there was a trend to just contribute to Prime Minister's National Relief Fund and that was the major CSR expenditure for the companies. But the present scenario looks changed since other fields of CSR like environment, education and healthcare have attracted much importance.
- Broad heads should be defined and CSR activities should be classified under these heads in order to record the spending.
- Now CSR is not just the ad-hoc charity but special efforts are taken by the company to ensure the proper use of funds for the specified cause.
- Environment has taken a central stage for the CSR initiatives and it is possible only with the strong CSR strategy by the top management of the company.
- Education is still leading element of CSR by companies followed by Healthcare.
- Apart from the latest trends, Waste Management is also given due consideration as a part of CSR

Thus, it can be said that the integration of CSR into Strategic Management is important in order to ensure the effectively driven CSR initiatives. By engaging in corporate social responsibility (CSR) activities, companies can not only generate favourable

stakeholder attitudes and better support behaviours (e.g. purchase, seeking employment, investing in the company), but also, over the long run, build corporate image, strengthen stakeholder–company relationships, and enhance stakeholders' advocacy behaviours.

Scope for further Research:

This manuscript is prepared on the data available upto the year 2018. The scenario for CSR is continuously updating. It has become more dynamic. Therefore there is room for further research with respect to the theme wise CSR Expenditure in detail.

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MAN – MACHINE COLLABORATION – THE PROS AND CONS

Rapid Evolution and technology is most definitely the main determinant of business strength and it necessitates an increasing need to adapt to this change in environment by humans. In the wake of automation, man –machine collaboration is the new normal. There are multiple implications for businesses and hence management. Artificial Intelligence is undoubtedly becoming smarter with rapid advancements in machine learning (ML) and deep learning algorithms, humongous amounts of data called Big Data on which these algorithms can be trained, and the phenomenal increase in computing power. (The rise of AI and Impending takeover, Livemint, 2018). There are pessimists, warnings about the impending threat in future looming large, however there are also positive voices and the optimists.

The Fear that AI will takeover

A lot of experts in the field are afraid that if humans build an artificial intelligence, what is referred to as Artificial General Intelligence, which is smarter than they are, then it will spell doom for them.

Amongst the popular and well known, eminent personalities who have voiced their fears and concerns are Bill Gates, Stephen Hawking, Tim Berners Lee, the founder of the World Wide Web, Elon Musk, AI pioneer, Alan Turing. From warnings such as, AGI could cause the end of human race to saying that they envisage an immortal dictator, a demon from whom no escape would be possible, to predictions like AI will take control of humans and strip them of their frail powers. This was as early as during the 1950's and 1960's. In 1965, Turing's colleague Irving Good pointed out that brainy devices could design even brainier ones, ad infinitum: "Thus the first ultraintelligent machine is the *last* invention that man need ever make, provided that the machine is docile enough to tell us how to keep it under control." It's that last clause that has claws. (How frightened should we be of AI-The New Yorker-Tad Friend May 14, 2018)

We are not really worried when Facebook tags all our photos or when Allo schedules appointments. We are aware that computers are competent enough at diagnosing serious diseases such as cancer. Really amazing is the outcome of a survey undertaken by Yale and Oxford University that says that machines will be better than humans at translating languages by 2024, writing high-school essays by 2026, driving a truck by 2027, working in retail by 2031, writing a book by 2049 and surgery by 2053. Sports

writing was automated by Stats Monkey (now called Narrative Science), a software developed by students and researchers at Northwestern University's Intelligent Information Laboratory, way back in 2009. *Associated Press'* AI system was writing over 4,000 quarterly earnings stories, and has ostensibly freed up reporters to write more in-depth stories on business trends by 2015. (The rise of AI and Impending takeover, Livemint, 2018).

American author and futurist Ray Kurzweil in 2006 predicted in his book, *The Singularity is Near*, among many other things, that AI will soon surpass humans. He forecasted that machines would have attained equal legal status with humans. Movies like the *Bicentennial Man*, starring the late Robin Williams, where a humanoid-turned-human is granted the status of a human by the courts are a revelation of similar future. That no such thing is likely to happen in the near future is the common opinion of AI experts.

Weak and Strong AI

The examples that we see around us like AI personal assistants and smart home assistants like Apple's Siri, Google's Allo, Amazon's Alexa and Microsoft's Cortana fall under the category of weak AI. The same can be said about AI chatbots. Driverless cars and trucks are "weak AI" too, however they are a higher avatar. In other words, weak AI does not have human consciousness. ANNs are loosely modelled on the human brain and do not behave like one.

We should be careful about confusing "weak and the strong AI". The stronger ones will have a brain that is equally or more powerful. They will be able to do everything humans can do and much more. It is the much more that we need to be wary about.

Then there is the Artificial Narrow Intelligence and Artificial General Intelligence. The enthusiasts say that because of these life will become easier as computers will handle all the routine matters and hence we will not have to exert as much. They also indicate the safety and reliability of self driving cars and trucks which may be able to save millions of lives.

The biggest fear is that we have no reason to believe that AI will thank us for creating it, especially if we fail to embed it with emotions such as compassion, empathy etc. It may seek its own enhancements as intelligence and power usually does.

The optimists

Mr Aniketh Jain , Co Founder and CEO at Solutions Infini Technologies India Pvt.Ltd says in an article that Paul R. Daugherty and H. James Wilson, I.T. execs at Accenture, proclaim that working alongside A.I. “cobots” will augment human potential. They rubbish all the “Robocalypse” studies that predict that robots will take away as many as eight hundred million jobs by 2030, In fact, one of their chapters is interestingly titled “Say Hello to Your New Front-Office Bots.

There will be exciting new jobs for humans such as “explainability strategist” or “data hygienist”

Experts in unexpected disciplines such as human conversation, dialogue, humor, poetry and empathy will need to lead.

In 1997, Garry Kasparov had said, “I don’t know how we can exist knowing that there exists something mentally stronger than us.” This was some years before he lost the famous match with IBM’s Deep Blue Computer. He argues both sides of the question though, which is about where Machine Intelligence ends and Human Creativity Begins. Despite the fear he has expressed earlier, he also says that if we do not use the opportunity of using computers for the more menial tasks and aspects of reasoning, we may as well be machines. If we use them to our advantage, it will actually free us and there will be scope for enhancing our cognition , “ toward creativity ,curiosity, beauty and joy.” He says something so simple but that has such truth in it. That “by relying on machines can we demonstrate that we are not”.

A.I.s lack the necessary linguistic savvy and mother wit. Intelligence may indeed be a kind of common sense: an instinct for how to proceed in novel or confusing situations is concluded by Hector J. Levesque, an emeritus professor of Computer Science. He suggested that a computer should be put to test for figuring out Winograd Schemas which hinge on ambiguous pronouns ,for eg: “The trophy would not fit in the brown suitcase because it was so small. What was so small?” Humans will instantly grasp that the problem is the suitcase, not the trophy.

One of the most integral characteristics of human beings is that they create things and often do it within a conscious framework. They craft concepts, business models and ideas, and not only that every single human cell can also create itself. No scientific theory can fully explain how life creates itself or from where this power of creation comes. What is largely missing in machines is art of creation without any help from superimposed programs. Humans on the other hand have the innate ability to absorb

and assimilate knowledge with an emotional perspective. The value lies in the Emotional Quotient and Intelligence Quotient that provide the added edge.

AI-powered robots can perform only when they are triggered with the logic, fed to it by human intelligence. Beyond logic, robots cannot function accurately. The ability to think forward and take decisions is something that distinguishes humans from machine-led developments. With the EQ and the IQ, complimented by experience and knowledge, we can predict the outcome at the time of inception of any event. AI-powered machines lack spontaneous presence of mind which hinders their ability to adapt to unexpected and unplanned changes. Programming machines for a crisis that needs common and timely sense and spontaneity is a big challenge. In contrast, humans respond to crisis adequately owing to previous lessons learnt and that helps them tackle new situations accordingly.

It sounds extremely captivating when we talk of replicating Human Behavior but the underlying concept of thinking, perceiving, analysing, understanding and responding spontaneously like a human brain is very far from practical instrumentation. Sophisticated AI may turn out to be a friend, however we must come to grips with the possibility that the greatest intelligence on the planet remains within the human minds, along with the required integration of AI-led solutions.

Venture capitalist Marc Andreessen pointed out that there is a subtext to the-robots-are-taking-our-jobs argument that is rarely discussed: “It presupposes that humans are not smart enough to think up new industries and jobs. But when industrialization killed the agriculture jobs that employed almost three quarters of the population, people dreamed up new ways to keep fellow humans working. The country was crisscrossed with highways. We took to the skies in flying machines. Computers were built. Entire industries around entertainment, healthcare, and education were birthed. I have more faith in humans, and I have yet to see any real evidence to support the pessimism. As Andreessen says, people 100 years ago would marvel at the jobs we do today. The optimist in me finds it difficult to imagine why it will be any different 100 years from now.”

So what really distinguishes Human Intelligence from AI

1. Common Sense.
2. Emotional Quotient and Intelligence Quotient.(EQ and IQ)
3. The ability to respond to new situations using past experiences.
4. The intelligence to understand how machines can help.

5. Imagination and Creativity to create new ideas.

The Implications for Business and Managers

Technical skills will no doubt remain important in the future of work, but as AI allows us to automate repetitive tasks across many industries however these take a back seat to soft skills. Emotional intelligence, creativity, communication, critical thinking, collaboration, and cognitive flexibility will become the most sought-after competencies.

Dennis R Mortenson, The CEO and Founder X AI says, “

1. Automation will take away the parts of our jobs we don't like and leave room for more meaningful work.
2. Rather, automation will release humans from the need to perform specific tasks. Those will mostly be non-creative and non-personal tasks that can be broken down into relatively predictable parts. These are chores you didn't want to do to begin with. A lot of people aren't hired to schedule meetings, submit receipts for reimbursements, or book flights, anyway—for a lot of folks, they're just a dreadful set of tasks that came along with your otherwise pretty exciting job.”

It is harder to imagine that there will appear new businesses and industries when compared to imagining that the earlier ones are disappearing.

The debate between “machines replace us” vs “machines help us” has been raging for decades. The role of machines is to help people perform better at adapting to technological change. When AI starts doing those things, it will make us better at our jobs, and better at *being human*. (Quartz Ideas,2017)

If we take the example of a job in sales, as it is currently, then it would be routine for a sales assistant to identify leads, prospect, send follow up communication, update sales force reports, etc. What is left then is the emotional and creative stuff. Fruitful time can then be spent in building relationships and serving clients and giving creative solutions to their problems.

By freeing you from the mundane tasks you used to have to do, often grudgingly, AI will let you focus on things that form the core of your job: the stuff that only *you*, a human, can do. (Quartz Ideas, 2017)

The Human Imagination will carry Humans forward despite the challenges as it always has. There will new industries, new productions, new ideas. In this AI will play its role. It will help help us become more human.

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**“TO STUDY THE PERCEPTIONS OF THE TOURIST ABOUT
THE FACILITIES PROVIDED AT THE FORTS AND ITS
MANAGEMENT FOR TOURISM DEVELOPMENT WITH
REFERENCE TO PUNE DISTRICT”**

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ABSTRACT:

Looking at the current status of the forts its management regarding facilities for the tourist at the forts. This paper is covered the information about the facilities provided at the forts for the tourist. This leads to the increase in tourist traffic and employment generation. Data has been collected through tourist from various age groups and from various forts of Pune Districts which comes under Archaeological Survey of India (ASI). Male and female both the respondents are considered to collect the data. Respondents have given the ranking for facilities which needs to be provided at the forts and should maintain on regular basis. Tourist would be happier if all the relevant facilities is available on each forts. As per the current scenario the forts are not having the necessary facilities which can fulfil the basic needs of the tourists. This is an attempt made by the author to search and find out the perceptions of the tourist about the facilities which they are getting or which they wanted to have at the forts. This data would definitely helpful for the government bodies, tourist and the other academicians who study the forts as a responsible revenue generation factor. Secondary data has been collected through various research papers and articles of the books and research papers. It is a need to study these kinds of challenges which are faced by the tourist who regularly visit the forts for trekking and to explore the knowledge of the forts. By providing necessary facilities would really affect the satisfaction level of the tourist and would increase the tourist traffic on each fort in Maharashtra.

Keywords: Forts , Management , Perceptions , Tourist , Tourism

I Introduction:

The three words i.e. culture, heritage and tourism are extremely correlated to each other. However culture, heritage and tourism have their own independent identity and existence but at the same time each is dependent on the other as well. Culture cannot exist without heritage

and where there is culture and heritage, tourism will have its existence. During the past decade cultural and heritage tourism has undergone tremendous growth and cultural and heritage tourism according to WTO (Richards, 2000) is a very important segment of the tourism demand which represents 37% of international tourism. Boniface and Fowler call tourism the greatest show on the earth (1993, p. 11) whose greatest ingredient is heritage. The glorious past of India has also ensured that the present and subsequent generations have plenty of historical and cultural heritages to be proud of. For centuries, people migrated into rich country. India with her respective culture and tradition later mixed with the rituals of the Indians has given birth to a new colour of heritage and culture. This amalgamation of cultures has slowly but gradually has enriched the values and faith of the Indians even further with each sunrise and sunset in the sky. The rich heritage of India comes alive with all its fragrance and colour which are still breathing in the heritage palaces, forts, temples and monuments fringed in each and every corner which makes multifaceted country, India. The splendid architecture, minutely carved motifs, embellished facades of the heritage monuments narrates the immense skill of the craftsmen of the country which have been fascinating the world for many centuries. If one start counting may fail to accommodate all the heritage sites of India in fingers which have evolved with the passage of time. UNESCO has come up with the mission to protect these treasures which are finest gifts to world from India so that generations to come feel them as fortunate. The number of important monuments and sites in India is so great that a single tour to discover the multifarious facets of its wonderful heritage is not enough. Nevertheless it will give an admirable glimpse into the Indian History and Heritage. Set with this background this research examines the satisfaction of tourists visiting the heritage sites of Pune District (Shikha Sharma 2014)

Need of the Study:

The author had tried to promote the forts as tourism product. Fort has potential to generate more revenue, only when it is maintained properly. Better management will lead to attract the tourist to the forts of Pune District. Now it is a need to conserve and provide regular maintenance to the forts. Tourists are looking forward to get all the facility at the forts so the basic needs would be sorted out. Tourists are really eager to visit all the forts of Pune district when the better management would be provided by the authorised bodies. The need to study this subject is to bring the forts in to the picture of tourism industry.

Definitions:

1. Forts: -

A fortified building or strategic position. A fort is a strong building or a place with a wall or fence around it where soldiers can stay and be safe from the enemy (www.collinsdictionary.com)

2. Management:-

Management is the administration of an organization, where it is a business, a not-for-profit organization, or government body, (Wikipedia)

The process of dealing with or controlling things or people.(English dictionary)

3. Perceptions:-

Perception is the organization, identification, and interpretation of sensory information in order to represent and understand the presented information, or the environment.(Wikipedia).The ability to see, hears, or become aware of something through the senses.(English dictionary)The way in which something is regarded, understood, or interpreted. .(English dictionary)

4. Tourist:-

The person who is supposed to leave his /her hometown in order to visit a different area for the purpose of leaving an experience of shopping, entertainment, visiting cultural & historical attractive having fun and so on the condition that (subject to) she / he should return to his/her own place, stay no longer than 12 months, make use of a tourist activity and spend his / her on money.(www.tugberkugurlu.com)The person who is supposed to leave his /her hometown(permanent place) on temporary, basis for the purpose of seeking new experiences, having fun & entertaining, doing sports, seeing cultural & historical places, (attractive) etc. On the condition that he /she should stay no less tha 1 day and no longer than 12 months, make use of a tourist facility for accommodation and spend her /his own money through their holiday.

5. Tourism:-

The commercial organization and operation of holidays and visits to places of interest (English dictionary)Tourism is travel for pleasure or business, also the theory and practice of touring, the business of attracting, accommodating, and entertaining tourists, and the business of operating tours. Tourism may be international, or within the traveller's country. (Wikipedia)

II) Review of Literature

As per the author described about the potential use of forts as a tourist destination. Which uses for the trekking purpose. The study had been done on the promotion of forts through advertisement. Forts can become the one major factor for the revenue generation and providing employment to the local community. Researchers had explained that there are various types of clientele who visits forts in various seasons as per the types of likes and dislikes. There were various mixed reactions about the forts and its importance amongst the people and tourists. They had said that proper promotion should happen for the betterment of forts and to preserve the culture and heritage of forts. All the respondents told that forts can attract tourist only if certain facility provided and regular advertisement done for the same. (Suryawanshi Manoj 2018) researcher had done the study to know the views about the forts to become the tourist destination for youth. In which author had collected the data from all youth. It had been explained that youth are more interested to visit forts as a trekking on regular basis or on weekend. Young tourists are more attracted to visit forts in every season, to see the beauty of forts, its heritage, construction and culture. It had also earned foreign exchange, through tourist who was willing to see forts. They all the way come from abroad to see forts of India. (Suryawanshi M.2016) in this paper author had studied the views about forts as trekking destination. Author had collected the data from various age groups who all are willing to visit forts in any seasons. Students and salaried people are more interested. Most of the respondents are aware about the various forts in and around Pune which are famous for trekking. Maybe it will be day or night trek. But tourist are not happy the kind of facilities should provide by the management authorities are not properly provided. Tourists are not happy with the one or two facilities which are provided and not maintained. (Suryawanshi M.2016) In this paper the researcher had studied about the evacuation and risk management of Amber Fort of the 17th century. Which was constructed very architecturally? There are various people who stay inside the fort as a resident. As far as their safety is concern then proper emergency evacuation plans must be ready. There is no. of visitors ,author had done the study about the security system at the forts, role of administrative staff and vendors. There is a need to set some plans which can saves life. Best practices and regulation and plans must be available. These plan helps in avoiding a panic driven incident like stampede and it also helps in reducing the after effects of a disaster. The author had given the model and new plans for the emergency and evacuation of the visitors and

residents. (Garima Charan 2017)The researcher had done the study of Gwalior fort. There are various forts that need attention and support for the promotion. Gwalior fort is one of fort among all the forts in India which has rich heritage and culture. Government bodies must work for the betterment of forts. Gwalior fort had a great part in history. Gwalior fort in not in a good condition which needs support and regular observation. It should be viewed as an important tourist destination as it has and it is attracting large number of tourist from different parts of the country but the focus should be to attract more tourists from international market also. It should bring some amendments in the way the present scenario is going on and at the same time challenges and opportunities should be sought out. It is great heritage of the state and it should cater to the tourist need and expectations in the right way. proper steps should be taken to conserve the beautiful piece of fine architecture so that it can help to uplift the states image and be fruitful for the community as well.(Shikha Sharma2014)The author has done the research of water on hill forts. Author had found out the importance of water for the various wars before the 19th century. How water played a very important role during war time. it was a reason to win the battle or loose the battle. What kind of strategies and water storage techniques they had adapted in to that era. How did they find sources to get water on hill forts? Which was very impossible task in that era where there were no any kinds of technology or machines? It was also been studied how enemies used the strategies for controlling the water for the war strategies. They had literally used the water sources to to control the movement of the enemies. This kind of history can be explained to the tourist for the exploration of their knowledge. (JEANDELOCHE2007).The project had been undertaken by the author to promote the Amber fort and the nearby other forts and cultural sites. She had explained the various minute details of the landscaping area of the fort and its surrounding area where regular observation is required to preserve the quality of forts. Maximum revenue is generated through this fort which provides employment. Author has developed the conservation plan for the Amber fort. Even heritage walks through the hill forts, lakes, palaces and gardens are worth to see its landscaping and cultural aspects. This will enable the visitor to have an immersive experience and the opportunity to create a coherent image of the past, reliving its history. Landscape conservation will contribute to increasing domestic and international tourism to Amber town and serve as a model for conserving other hill forts in Rajasthan. (NEHARAJORA 2013)

III) Objectives:

1. To study the perceptions of tourist towards forts management for tourism development with reference to Pune district.
2. To find out the various facilities provided at the forts.
3. To analyse perceptions about giving facilities at the forts to the tourist.
4. To know the forts tourism can provide employment or not

Sampling Frame:

For this study the researcher has collected the information from the tourists who frequently visit forts. Author has collected the information by personally visiting the forts who maintain by Archaeological Survey of India (ASI)

Sources of Data:

- **Primary data** collected from the universe mentioned above. Who frequently visit the Forts.
- **Secondary data** collected from published/unpublished literature on the A study of forts management of Pune District. Latest references available from the journals, newspapers, research publications and magazines, and other relevant sources like internet.

Scope of the Study

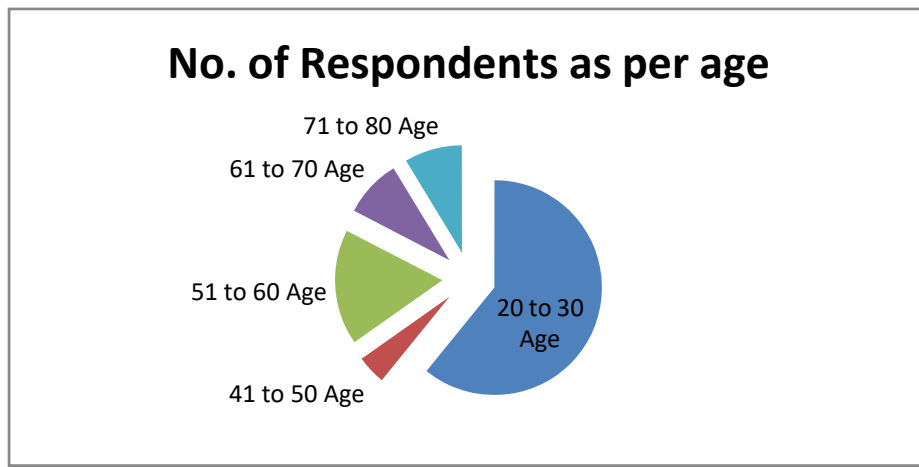
Scope of the study is to consider the role of forts to increase the number of visitors not only in Pune District but all the district and states where forts are located. Tourists role for the maintaining the heritage structure for future generation.

Public Relations:

Fort of Maharashtra is very much close to the tourist and visitors of the state. People have a pride about the forts in Maharashtra. Pune district itself is having more than 30 forts. Visiting forts in Pune district helps to promote forts a separate entity for the tourism industry. This provides lots of employment at the forts. It also generates revenue. It helps to build the close association with the forts architecture, its rich history. Traditions and culture of the forts. It explores the knowledge of the tourists and visitors. There is a kind of bonding between forts and tourist.

IV. Data Analysis and Interpretation:

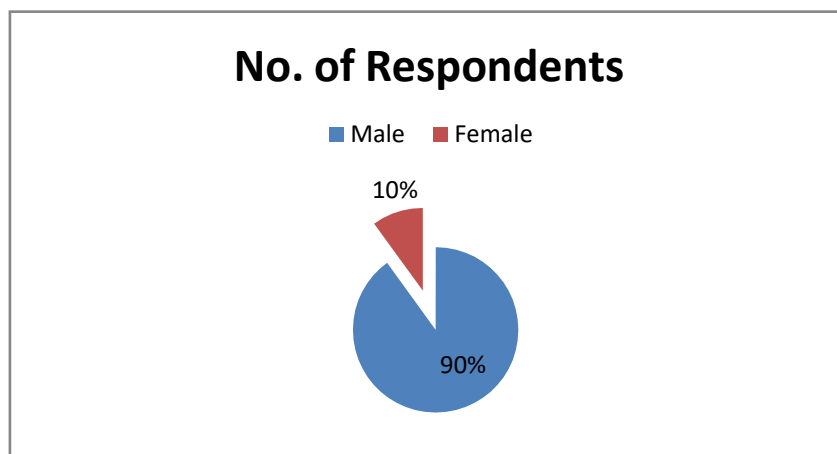
Analysis of respondents as per age



Interpretation:-

As far as tourists age is concerned to visit forts. There is no any specific age which found out by the researcher. He found that there are various tourists who visit forts. Their age is ranging from 20years to above 70 years. Tourists are very much interested to visit forts even they are more in age. It shows that forts are very popular to visit as a destination.

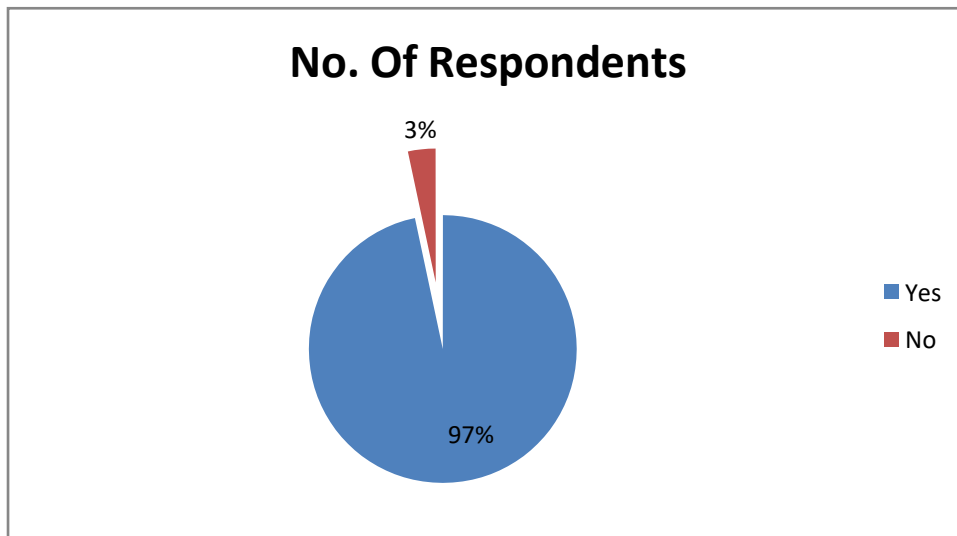
Analysis if respondents as per Gender



Interpretation:-

As per the observation and survey of various forts of Pune district it is found that male tourists are more interested than female tourist to visit forts. They are more in numbers to come frequently to visit Forts.

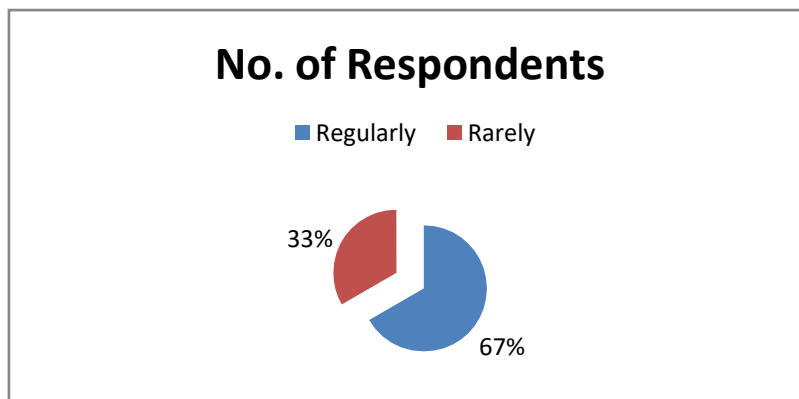
Q.1) Are you aware about the forts as tourist destinations in and around Pune?



Interpretation:-

Researcher has said that no of respondents about the awareness of forts in Pune district as a tourist destinations are more. Only little chunk of people who are not known about forts in and around Pune district.

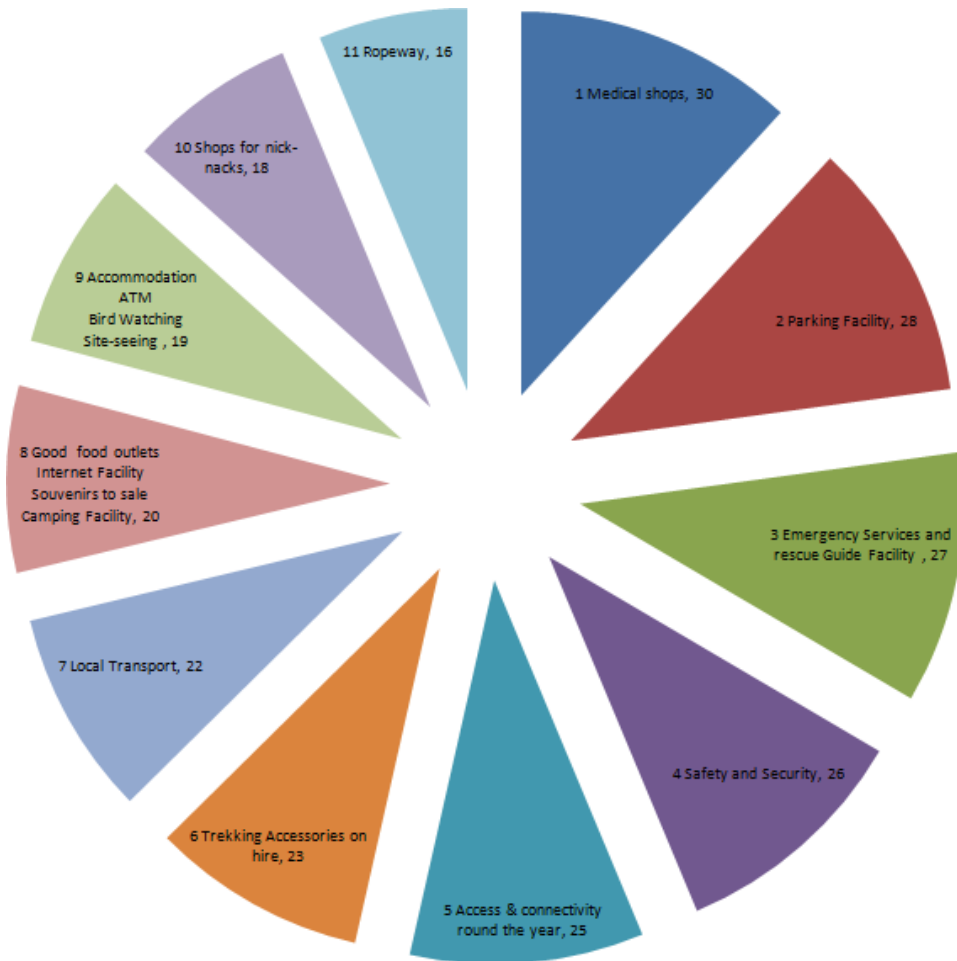
Q.2) How often do you visit Forts in and around Pune?



Interpretation:-

There are maximum numbers of tourist who regularly visit forts for various reasons. Some visit for trekking purpose. Some visit to see the architecture of fort. Some may visit to know the history of forts.

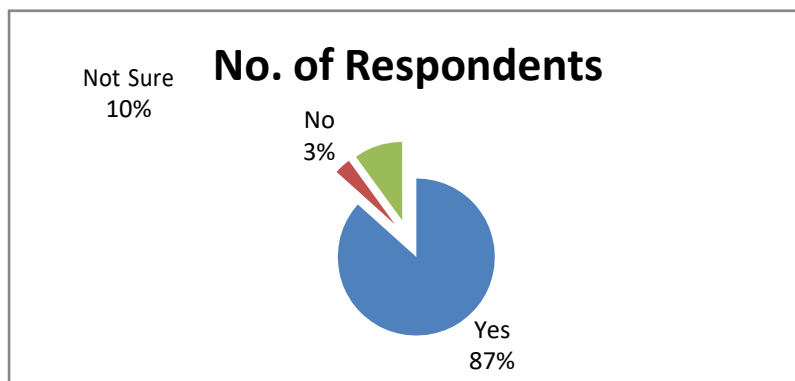
Q. 3) Please rank the following services by assign a rank for each factor (1-18) in ascending degree of importance for a tourist. (Thus a rank 18 say will be least important while the rank 1 will be most important.)



As per the data collected by the tourist. It is known that as per the ranking systems of the facilities who would like to have at the forts. Tourists have said that medical facility is the prime essential thing to be provided at the forts. Followed by parking facility for the tourist who all is coming from long distances to see the forts. Emergency services and rescue and guide facility are also important to make the tourist aware and educate about the history and information about the forts in details. Safety and security and access and connectivity round the year play a very vital role to the protection of all kinds of tourist. As and when they need any help in an emergency, some team should be always ready to help them. Trekking accessories on hire and local transport are the very essential factors for the tourist. Who is coming for adventurous tour like trekking at the forts, must get all the necessary things available which they require. A small shop can be opened at the bottom of the forts. Local transport hardly available near the forts. Bus can drop you to a certain point. After than you have to walk some kilometre. If two wheeler is available then problem is sorted however those who are coming first time would get everything available for good accessibility. Good food out, Internet Facility,

Souvenirs to sale and Camping Facility are coming in the 8th rank. These are also equally important to stay back at the forts or at the bottom of the forts for some time, it helps to provide employment and generate revenue to the local community as a whole. Accommodation, ATM, Bird Watching, Site-seeing. These are the extra facilities which we may provide to the tourist neat to the forts. It may also increase the tourist flow and revenue. Shops for nick-nacks and ropeway have been ranked 10th and 11th. It shows that these facilities are not so important from the tourist point of view.

Q.4) Do you think that on providing the facilities mentioned above, more tourists will visit the forts?



Interpretation:-

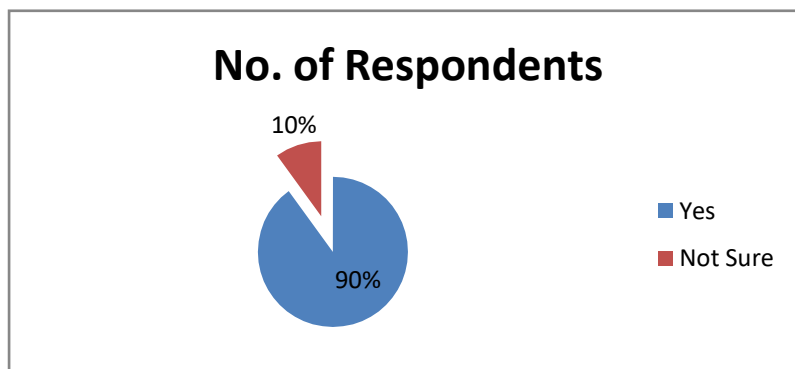
As per the above mentioned facilities maximum tourists have said that they would be very happy to have such a wonderful facilities nearby forts. It will result to increase the flow of tourists.

Q.5) Which other facilities/services you like to suggest for increasing tourist flow?

Tourist have replied for the other services which are also very essential like Quick Response Teams at different venues in an emergency, maintain the broken fort, railings on edges, Information about fort, history, transport, Safety measures like railings, signage, drinking water, reduce timing for visit like, it should be from 5 am to 9 pm. Accommodation, Food, Public transport, Guides, good security, who respect historical places can visit only. Information about the history would add value; it is a priority, to provide for dustbins and garbage collection. Ladies and Gents Washrooms, Information to visitors, Good Maps, Direction and Name to roads, No commercialization like hotels and bar, local people should get employment from fort, local people and their habitat , their food should be heighted, adventure games should be developed around forts,

education to visitors is most. Information boards, Solar lights, Local people should involve as a guide, Digital rooms to tell history of that place, videos, pictures, Creating awareness about this , Historical monument and the richness of nature on and around fort, Information center, books shop, way to come and go properly on each fort, Importance of history & geographical conditions about that area - publicity issue, True and authentic information to tourist who want to know genuine history and facts, Information about forts, history and historical information like wars involved, strategically information, E-toilets, Solar lights system has to be there.

6) Do you think that the provision of the above mentioned facilities at forts will help to provide employment to the local people?



Interpretation:-

The provision of the above mentioned facilities at forts will definitely help to provide employment to the local people as per the perceptions of the tourist which author has got in the survey.

Findings:

20 age years old to 30th age years old are the maximum tourist who visits forts. 90% male are interested to visit forts on regular basis. 90% are respondents are aware about the forts as a tourist destination and 67% respondents are the regular visitors to the forts. Medical shop is rank 1, parking is rank 2, emergency service rescue a guide facility are the 3rd rank. Safety and security on 4th rank, access and connectivity round the year is coming on 5th rank. Trekking accessories on hire 6th rank and local transport 7th rank, Good food outlets Internet Facility, Souvenirs to sale, Camping Facility are coming on 8th rank. Accommodation ATM, Bird Watching, Site-seeing is the rank 9th. 10th rank is shop for nik- nacks and 11th is ropeway. The facilities are listed as per ranking as per the preference given by the tourists.87% people responded saying that they would happy if the above mentioned facilities provided near to forts.90%

respondents said that local community would get the employment as and when the such mentioned facilities will provide near the forts.

Recommendations and Suggestions:

There are so many forts in Maharashtra which should come in the list of maintenance and restoration. There are various forts which are famous for one or the other reason. There has to have a proper facilities which are needed to the tourist. It helps to increase revenue and provide employment. There is a need to maintain the glory and rich heritage and culture through these forts.

Conclusion:

As far as tourists age is concerned to visit forts. There is no any specific age which found out by the researcher. He found that there are various tourists who visit forts. Their age is ranging from youth to above senior citizen . Tourists are very much interested to visit forts even they are more in age. It shows that forts are very popular to visit as a destination. As per the observation and survey of various forts of Pune district it is found that male tourists are more interested than female tourist to visit forts. They are more in numbers to come frequently to visit Forts. Researcher has said that no of respondents about the awareness of forts in Pune district as a tourist destinations are more. Only little chunk of people who are not known about forts in and around Pune district. There are maximum numbers of tourist who regularly visit forts for various reasons. Some visit for trekking purpose. Some visit to see the architecture of fort. Some may visit to know the history of forts. As per the data collected by the tourist. It is known that as per the ranking systems of the facilities who would like to have at the forts. Tourists have said that medical facility is the prime essential thing to be provided at the forts. Followed by parking facility for the tourist who all is coming from long distances to see the forts. Emergency services and rescue and guide facility are also important to make the tourist aware and educate about the history and information about the forts in details. Safety and security and access and connectivity round the year play a very vital role to the protection of all kinds of tourist. As and when they need any help in an emergency, some team should be always ready to help them. Trekking accessories on hire and local transport are the very essential factors for the tourist. Who is coming for adventurous tour like trekking at the forts, must get all the necessary things available which they require. A small shop can be opened at the bottom of the forts. Local transport hardly available near the forts. Bus can drop you to a certain point. After than you have to walk some kilometre. If two wheeler is available

then problem is sorted however those who are coming first time would get everything available for good accessibility. Good food out, Internet Facility, Souvenirs to sale and Camping Facility are coming in the 8th rank. These are also equally important to stay back at the forts or at the bottom of the forts for some time, it helps to provide employment and generate revenue to the local community as a whole. Accommodation, ATM, Bird Watching, Site-seeing. These are the extra facilities which we may provide to the tourist neat to the forts. It may also increase the tourist flow and revenue. Shops for nick-nacks and ropeway have been ranked 10th and 11th. It shows that these facilities are not so important from the tourist point of view. As per the above mentioned facilities maximum tourists have said that they would be very happy to have such a wonderful facilities nearby forts. It will result to increase the flow of tourists. Tourist have replied for the other services which are also very essential like Quick Response Teams at different venues in an emergency, maintain the broken fort, railings on edges, Information about fort, history, transport, Safety measures like railings, signage, drinking water, reduce timing for visit like, it should be from 5 am to 9 pm. Accommodation, Food, Public transport, Guides, good security, who respect historical places can visit only. Information about the history would add value; it is a priority, to provide for dustbins and garbage collection. Ladies and Gents Washrooms, Information to visitors, Good Maps, Direction and Name to roads, No commercialization like hotels and bar, local people should get employment from fort, local people and their habitat , their food should be heighted, adventure games should be developed around forts, education to visitors is most. Information boards, Solar lights, Local people should involve as a guide, Digital rooms to tell history of that place, videos, pictures, Creating awareness about this , Historical monument and the richness of nature on and around fort, Information center, books shop, way to come and go properly on each fort, Importance of history & geographical conditions about that area - publicity issue, True and authentic information to tourist who want to know genuine history and facts, Information about forts, history and historical information like wars involved, strategically information, E-toilets, Solar lights system has to be there. The provision of the above mentioned facilities at forts will definitely help to provide employment to the local people as per the perceptions of the tourist which author has got in the survey.

Limitation:

- 1) The Study is limited to only Pune district.
- 2) The Data has been collected only from tourists.

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MINIMALISTIC LIFESTYLE – LESS IS MORE

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ABSTRACT :-

Today's world is a world of completion about things, clothes, property, ornaments , decorations , cookware, furniture, linens, tools , books , toys etc we possess. The more we have the more we want. More things will make us more happy is a misconception followed by many these days. Man today wants a lot of things to survive comfortably in this world. By comfortable living one means buying all the things that are available in the market without giving it a second thought whether it will be of any use in future or not. We are just hoarding things for our selves, cluttering our mind and space around without figuring out their immediate importance in our life. Minimalism is misunderstood for sacrifice , deprivation , being miser, giving up all the modern conveniences etc, but actually minimalism is the key for a better life in the world today. Being minimalistic means you value your self more that the materialistic things . It simply means making decision based on what you essentially want then buying all the things you just want to show off your status. Minimalism is a theory based on valuing experiences rather than things , in modern world it is also termed as ‘ minimalistic management’. It is about having the right thing not the expensive thing. It gives importance to quality over quantity. Its manages your financial planning and it saves a lot of time which you can invest on improving yourself . Minimalism is always an ongoing process where we constantly re-assess our value and needs.

Key words :- Minimalism , lifestyle, comfort, minimalistic management.

Introduction :-

What is minimalism ?

Minimalism is a tool that can assist you in finding freedom, managing your own life and taking smart decisions. Freedom from fear of showing off to relatives, friends and others. Freedom from worries about buying expensive stuff suiting your status. Freedom from overwhelm. Freedom from guilt of unnecessary loans and credit debts .

Freedom from depression of repaying loans over expensive commodities you purchased . Freedom from the trappings of the consumer culture we've built our lives around. That doesn't mean there's anything inherently wrong with owning material possessions. Today's problem seems to be the meaning we assign to our stuff: we tend to give too much meaning to our things, often forsaking our health, our relationships, our passions, our personal growth, and our desire to contribute beyond ourselves. Want to own a car or a house? Great, have at it! Want to raise a family and have a career? If these things are important to you, then that's wonderful. Minimalism simply allows you to make these decisions more consciously, more deliberately.

Minimalism is a lifestyle in which you reduce your possessions to the least possible. Living with only the bare essentials has not only provided superficial benefits such as the pleasure of a tidy room or the simple ease of cleaning, it has also led to a more fundamental shift. It's given a chance to think about what it really means to be happy.

We think that the more we have, the happier we will be. We never know what tomorrow might bring, so we collect and save as much as we can. This means we need a lot of money, so we gradually start judging people by how much money they have. You convince yourself that you need to make a lot of money so you don't miss out on success. And for you to make money, you need everyone else to spend their money. And so it goes. Minimalism is exactly that metaphysical space we can create for ourselves to 'breathe' Adopting minimalism into your lifestyle in some capacity can help declutter our physical space as well as our mental space.

SIX DIFFERENT TYPES OF MINIMALISTS

There are six different types of minimalists, all adhering to their own values, to create the kind of minimal space needed for a specific ideal lifestyle

1. AESTHETIC MINIMALISTS:

This type of minimalism might be what first pops in your head — the super modern, colorless studio apartment with bare countertops, white walls, and maybe a single piece of abstract art or tapestry. This isn't necessarily about owning less, but having less on display. This type of minimalism allows for a clean fresh living space, where your mind isn't always cluttered or distracted by what's going on around the room. It's crisp, simple, and refreshing, a perfect environment to keep a person clear-minded and focused.

2. ESSENTIAL MINIMALISTS

This type of minimalism is all about 'essentialism' — deciphering what you want versus what you really need. The most frequent question you would ask yourself is: How much can you really live without? This breaks down to clothing, belongings, supplies, everything, bringing things back to the ultimate basics. By the end you'll probably only own just enough things to get you through about two weeks. By following this type of minimalism, your belongings will be more worthwhile, with an emphasis on quality over quantity.

3. EXPERIENTIAL MINIMALISTS

Also considered 'backpack' minimalists, these types live a life that allows them the ability to fit their entire life into a bag and be ready for any adventure that awaits. This type of minimalism revolves around the ideal that the pursuit of experiences is far more important than the pursuit of things. They own very little things purely as an outcome of their chosen lifestyle.

4. SUSTAINABLE MINIMALISTS

The environment is the number one focus in this type of minimalism, so they could be called the 'eco' minimalists as well. Green living and zero-waste are key: reduce, reuse, recycle. These minimalists find any possible way they can to reduce their carbon footprint on the planet. They might own more tools but their honing in on reducing their dependence on the consumption from the environment. DIY projects are a favorite for this minimalist, living off the land or being a very eco-friendly city resident is the probable lifestyle.

5. THRIFTY MINIMALISTS

Spending less is the main goal of this minimalism. Minimalist habits are adopted in this lifestyle due to a certain financial mindset. This could look like only buying clothes from thrift stores, tending to a personal, self-sufficient garden, refinishing furniture, living in a tiny apartment, or at least bunked up with several roommates to save on rent, riding a bike rather than owning a car, hanging onto things in case it might be needed in the future.

6. MINDFUL MINIMALISTS

This type of minimalism is focused on purpose or intention. A mindful minimalist finds spiritual enlightenment from stripping away all the extra, unnecessary things in life. This lifestyle is adopted purely in the mission of finding inner peace, or at least a more peaceful state of mind. Letting go of old possessions translates to

letting go of guilt, stress or any other negative feelings to which our belongings can sometimes become associated. The goal is to only have things -furniture, clothes, other belongings that bring pure joy to your life. This makes way for a lifestyle where each of your belongings has a purpose.



FAMOUS PEOPLE WHO WERE MINIMALISTS :-

There are plenty of successful minimalists who lead appreciably different lives.

Confucius – Pilosopher, Chinese mystic

“Life is really simple, but we insist on making it complicated.”He advocated a life with simple things and simple thought process.

Lao Tzu - Philosopher and Scholar

“Be contented with what you have, rejoice in the way things are . When you realize there is nothing lacking, the whole world belongs to you.”He wanted the people to focus on the things they has and use them to the best they could and not to be greedy and run behind materialistic things.

Marcus Aurelius – Emperor, Philosopher

“Very little is needed to make a happy life,it is all within your self , in your way of thinking .”

Leonardo Da Vinci – Inventor, Painter, Sculptor

“Simplicity is ultimate sophistication.”

Albert Einstein – “Three rules of work – out of clutter find simplicity , From discord find harmony, In the middle of difficulty lies opportunity.”

Mahatma Gandhi – “Live simply ... so others live simply ”

RECENT FAMOUS CELEBS WHO ARE MINIMALISTS :-

Mark Zuckerberg:-Mark, the founder of Facebook, is a billionaire who chooses to wear casual clothing as opposed to expensive name brand suits. He doesn't want to waste time on buying clothing , cluttering them in his wardrobes and wasting time in

selecting them for occasions , but rather spends time on helping his community grow, *“I really want to clear my life to make it so that I have to make as few decisions as possible about anything except how to best serve this community”*.

Boris Johnson:- Boris, the former mayor of London, and currently the minister of Foreign Affairs of Great Britain, also chooses to live a simple life as he rides a bike to work instead of being driven by a driver. He believes it’s a better alternative to driving and he encourages other to do the same.

Steve Jobs :- Steve, the founder of Apple, believed in the minimalistic lifestyle, both in his professional life and in his personal life, *“I remember going into Steve’s house and he had almost no furniture in it. He just had a picture of Einstein, whom he admired greatly, and he had a Tiffany lamp and a chair and a bed. He just didn’t believe in having lots of things around but he was incredibly careful in what he selected,”* -John Sculley

Conclusion :-

Living a more simple life helps you become the best version of yourself because you aren’t worrying about materialistic or unimportant things.

The impact on **personal life** is limitless, but below are the five of the most defined benefits:

1. We have more time to spend doing things that we love and less time doing meaningless tasks like cleaning and organizing things that we don’t even care about. We also save time not having to buy, repair or sell things that we don’t even need.
2. We have a better ability to focus when we have less clutter around our home to distract us.
3. We have much more gratitude for and take better care of the things we own when they are more limited.
4. We have a greater sense of purpose in my life when we are less focused on physical things and more focused on the relationships and experiences that really matter.
5. We are able to provide an example to others who are busy buying things on loan just for the sake of it.

The impact of minimalism on **financial life** :-

1. Buying fewer things means that we have more money to go toward our financial goals such as saving for travel and hobbies.

2. Intentionally researching and buying things that last longer means that we spend less money in the long run.
3. We have more time to work on saving money and planning for the future, such as creating our own financial plan.
4. If we ended up purchasing a smaller it results in lower heating and cooling bills and less buying things in general because the small house will have small decor capacity.
5. Finally , when we start feeling satisfied with what we have we think of helping others.

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**A STUDY ON IMPACT OF MARKETING STRATEGIES ON
BRAND EQUITY WITH SPECIAL REFERENCE TO GEMS AND
JEWELLERY SECTOR IN PUNE CITY**

Dr. Nilesh Anute

Dr. Devyani Ingale

ABSTRACT

Business organizations are using various marketing strategies to gain competitive advantage and run business successfully. These marketing strategies also helps in creating brand awareness, brand association, brand loyalty which are dimensions of brand equity. The objective of this research paper is to study the impact of various marketing strategies on brand equity with special reference to Gems and Jewellery sector in Pune city. For this research the data is collected from 160 respondents based on non probability convenience sampling.

Introduction

Marketing strategies enable a firm to expand business activities for market reputation, to satisfy human wants, to lead to specialization and efficient performance of production function climaxing in economic stability.

A brand is a name, term, design, symbol, or other feature that distinguishes one seller's product from those of others. Developing brand equity is a vital as it allows companies to more effectively engage with their customer base in such a way that drives brand loyalty, allowing the business to grow further. Having a strong equity is intangible and provides several real business benefits like expansion opportunities.

The Effects of Marketing Strategies on Brand Equity

Marketing decisions affect brand equity and purchase intention. Managers need to evaluate the marketing activities and reduce or avoid brand-hurting activities. Marketing activities such as price, slogans, symbols, packaging, company image, country of origin, store image, advertising expenditures, and promotional events have important influence on the brand equity. In addition, some scholars have identified marketing activities (e.g. price, promotion, brand alliance and product trial, etc) as major sources of effects on the brand equity and consumer purchase intentions. Four marketing factors including price, promotion, endorsement strategy, and store image (one factor only for retailers' store brand) are chosen in the study to introduce their effects on brand equity and consumer purchase intentions.

Literature Review

Kotler (1997) “The marketing strategy is the way in which the marketing function organizes its activities to achieve a profitable growth in sales at a marketing mix level.

Simon & Sullivan, (1993) Brand equity, when correctly and objectively measured, is the appropriate metric for evaluating the long run impact of marketing decisions (.

Barawana Shashank (2009) told in his study that the industry of jewellery has boomed in the past few years due to the increased demand of fashionable jewellery. The four brands – Asmi, Nakshatra, D’Damas and Gili – are unique with structured positioning and branding that endows each with a unique brand persona and character.

K. Balaji Dr. R Maheshwari (2014), Thus the above theoretical study of the current scenario implies that the consumer buying behavior is taking a paradigm shift and consumers are interested in brand values rather than unorganized jewellery of the past.

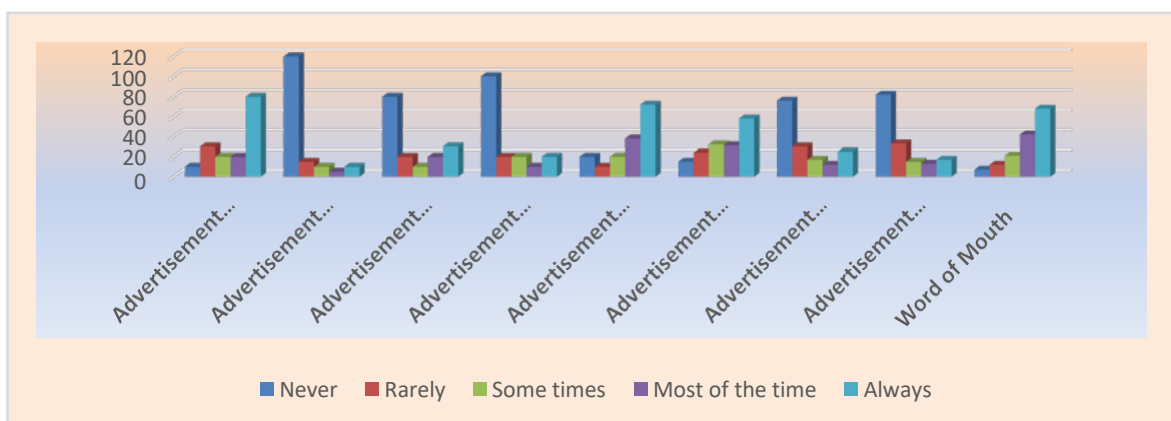
Objectives of the study

- To identify various marketing strategies of Gems and Jewellery retailers.
- To study various brand equity dimensions.
- To analyze the impact of marketing strategies on brand equity dimensions.

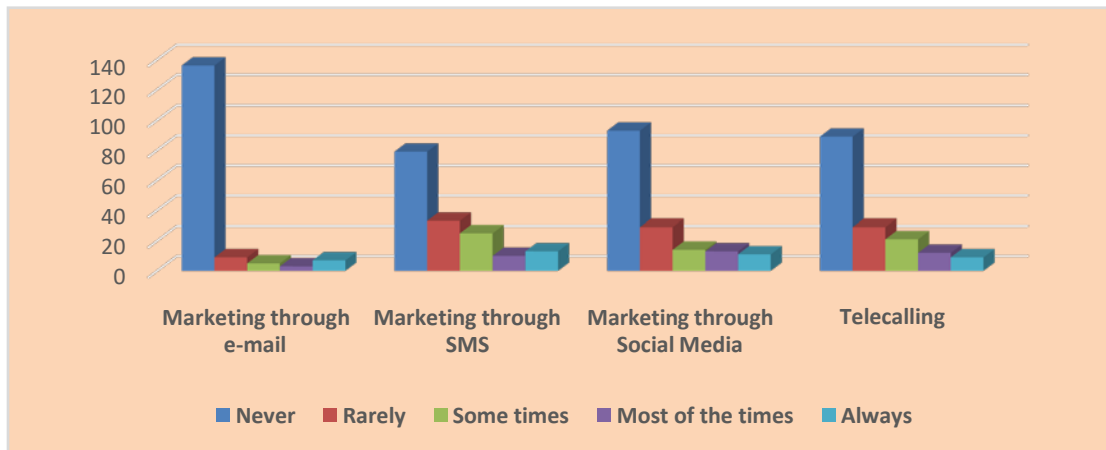
Research Design

- Type of Research Design: Descriptive Research Design
- Sampling Method: Non Probability Convenience Sampling
- Sample Size: 160 Respondents
- Sampling Area: Pune City
- Data Collection: Primary Data-Questionnaire; Secondary Data-Websites, Magzines, Newspapers, Books etc.
- Data Analysis Tool: Ms-Excel

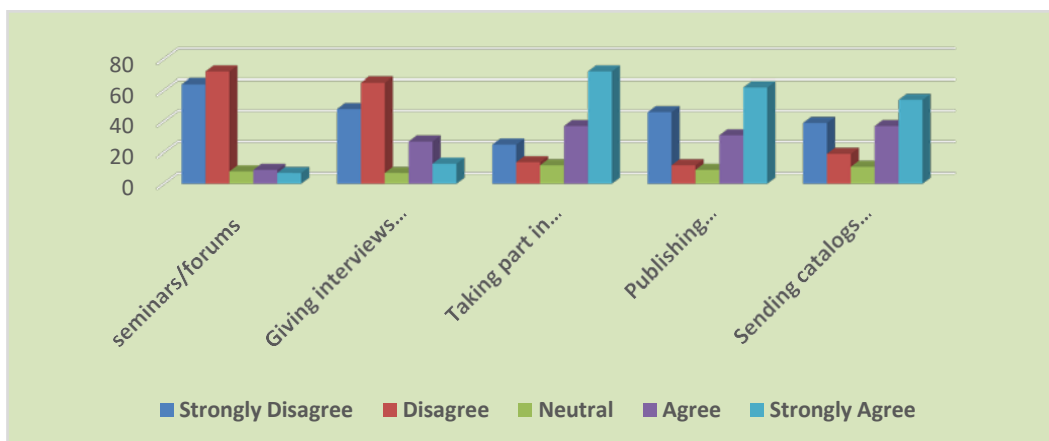
Influence of Advertisement on Brand Awareness



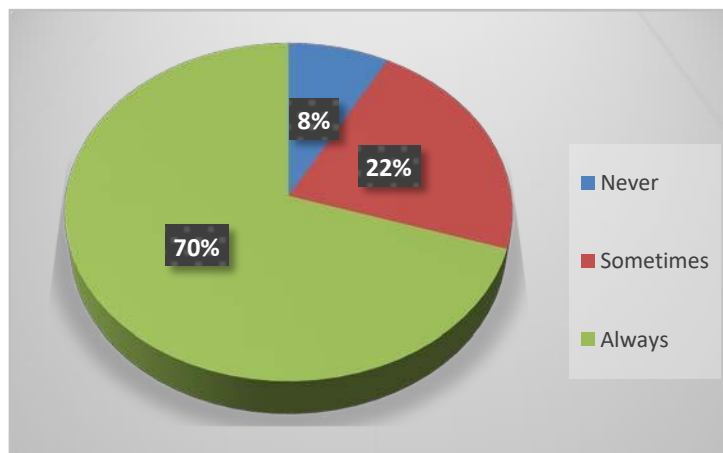
Influence of Direct Marketing on Brand Awareness



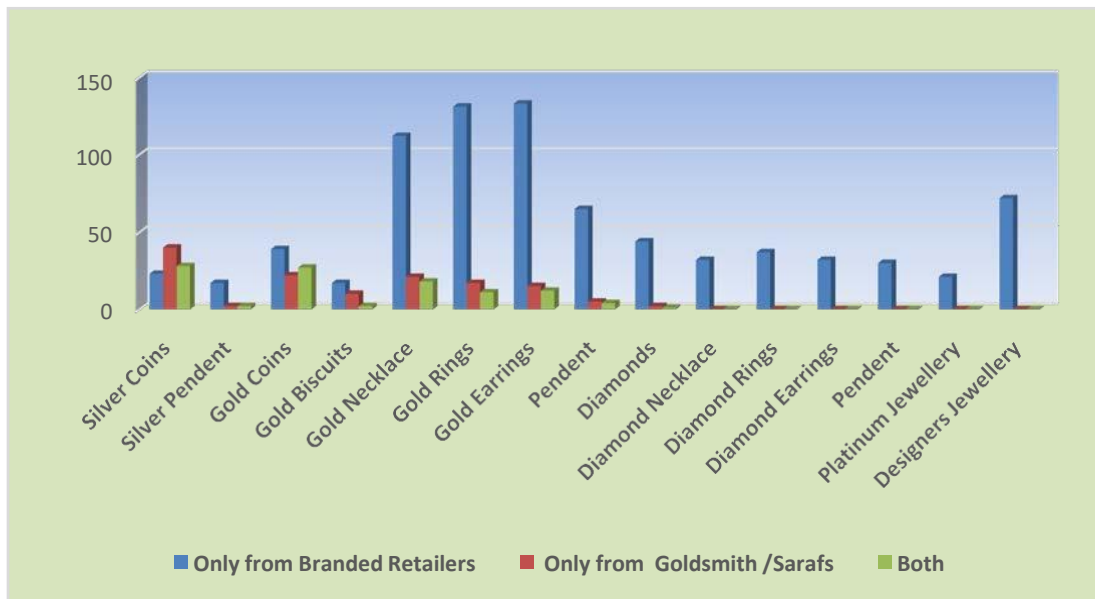
Influence of Public Relation activities on creating Brand Image



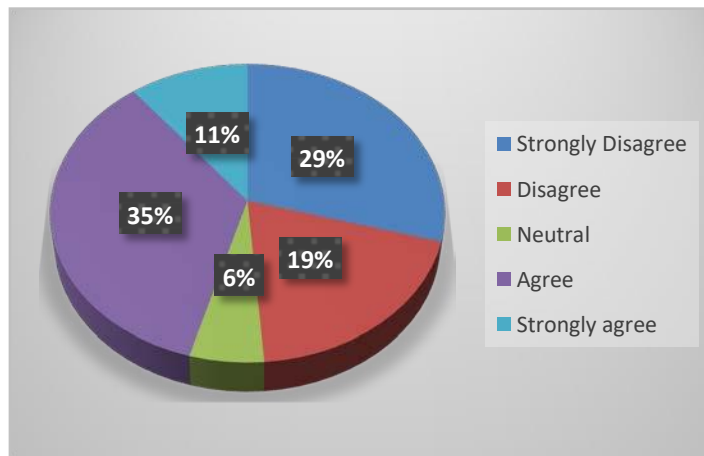
Brand Loyalty



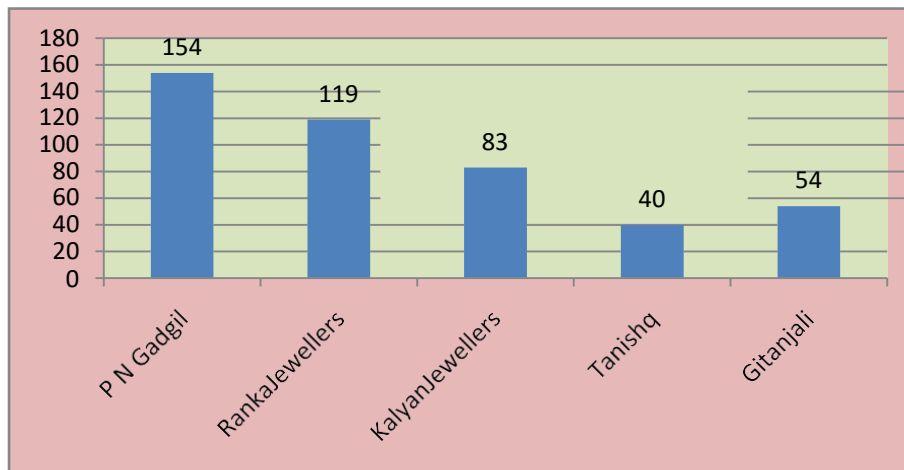
Brand Association with respect to branded and non branded jewellery retailers



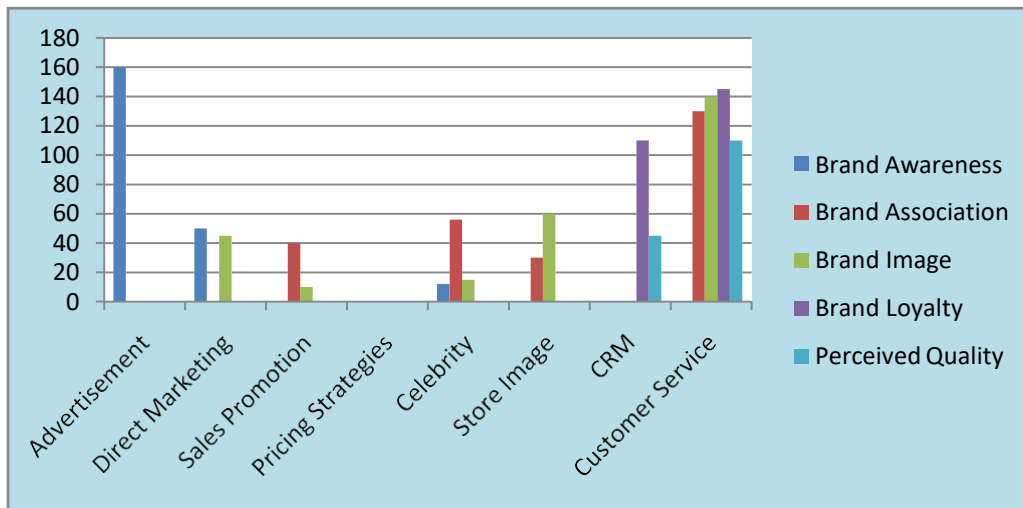
Influence of Brand Ambassadors on Brand building



Brand Recall



Marketing Strategies and Brand Equity



Findings

1. Advertisement on Television is the most influencing marketing strategy to create brand awareness.
2. CSR activities like donation giving and helping needy people creates a good brand image about that organization in customers mind.
3. Most of the customers of Gems and Jewellery (70%) are loyal to the retailers brand for long time.
4. As compared to non branded jewellery retailers customers have strong brand association with branded jewellery retailers.
5. Near about 50% customers agreed that brand ambassadors have influence on brand building.
6. PNG is at top of the mind of customers followed by RankaJewellers and Kalyan Jewellers when it comes to brand recall.
7. At some extent (25%) Direct marketing practices helps the retailers to create brand awareness and brand image.
8. At some extent sales promotion schemes (25%) and celebrity (45%) helps the retailers to create brand association.
9. Customer relation management practices have good influence on making the customers loyal to the brand.
10. Marketing strategies followed in providing various customer services have strong influence on creating brand image, brand association, brand loyalty and quality.

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Magazines

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- 4P's, etc.

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**CAUSES OF LOSS OF WORKPLACE PRODUCTIVITY DUE TO
ABSENTEEISM AMONG EMPLOYEES IN MAHARASHTRA
STATE ROAD TRANSPORT CORPORATION (MSRTC) WITH
SPECIAL REFERENCE TO NAGPUR DEPOT , NAGPUR,
MAHARASHTRA**

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ABSTRACT

Absenteeism is a habitual pattern of absence from duty or obligation and it has been viewed as an indicator for poor individual performance. A high degree of absenteeism and turnover can cause serious problems for business like Absenteeism hurts productivity, costs money, affect performance and impact the morale of the rest of employees. A satisfactory level of attendance by employees at work is necessary to allow the achievement of objectives and targets by a department. So the present paper looks at the causes of absenteeism and its ranks and what employer can do to reduce Absenteeism rates in organization.

Index Terms- Workplace productivity, Absenteeism, Causes, Hurts productivity, Poor individual performance.

INTRODUCTION

Absenteeism is the failure of employees to appear on the job when they are scheduled to work. Employees who are away from work on recognized holidays, vacations, approved leaves of absence, or approved leaves of absence would not be included. Employees, who quite without notice are also counted as absenteeism until they are officially removed from the payroll, Absenteeism are becoming a serious practice in labour oriented industries.

Absenteeism is serious workplace problem and an expensive occurrence for both employers and employees seemingly unpredictable in nature. A satisfactory level of attendance by employees at work is necessary to allow the achievement of objectives and targets by a department. Employee absenteeism is the absence of an employee from work. It is a major problem faced by almost all employees of today. Employees are

absent from work and thus the work suffers. Absenteeism of employees from work leads back logs, pilling of work and thus works delay.

Absenteeism is every manager's nightmare, and organisations should periodically calculate the cost of absenteeism to enable managers to determine the seriousness of the problem and its impact on profits based on the most recent available data. Employees are required by their employment contract and/or common law duty to regularly and reliably attend their place of work. When they fail to do so, this constitutes an incidence of absenteeism.

Absenteeism is the single most important cause of lost labour time. Absenteeism is one of major human problem of Indian industries. Absence is an employee's non availability or work when work is available for that employee.

STATEMENT OF THE PROBLEM

Absenteeism has become a major problem in almost all the industrial sectors. Excessive absenteeism constitutes a considerable cost to the industry even when the absent employee receives no pay. Because of disorganization of work, work schedules are upset and delayed, resulting in the management failure to meet delivery dates. When sick pay is authorized, the cost of absenteeism mounds up more rapidly. It is, therefore, desirable that measures are effectively implemented to minimize the cost of absenteeism as far as possible. In the light of various factors

Promoting excessive rate of absenteeism in the units concerned, measures will have to be taken by the management. Generally speaking, proper conditions of work in the factory, adequate wages leave for rest and recuperation constitute the most effective means of minimizing cost of absenteeism. Provision of suitable housing facilities in industrial towns would also go a long way in improving attendance. Unless working and living conditions are improved and necessary commitment of labour force in the place of work is promoted and stabilized, the problem of absenteeism cannot be effectively solved.

THE REASONS FOR ABSENTEEISM

The phenomenon of absenteeism has been explained in various ways. The atmosphere prevailing in a plant, therefore affects His attitude to his work, and either persuades him to attend regularly or keeps him away. Irritating uncertainty, irregularity, and confusion in the factory are likely to be important cause of absenteeism. The attitude and practice of the management also contribute to absenteeism.

CAUSES OF ABSENTEEISM

- Maladjustment with factory conditions
- Social religious ceremonies
- Unsatisfactory housing conditions
- Industrial fatigue
- Unhealthy working conditions
- Absence of adequate welfare facilities
- Alcoholism
- Indebtedness
- Improper and unrealistic personnel policies
- In adequate leave facility

MEASURES FOR CONTROL ABSENTEEISM

- Adoption of a well defined recruitment procedure
- Cordial relationship between supervisors and workers
- Provision of reasonable wages and allowances and job security for workers
- Motivation of workers and social measures
- Improved communication and prompt redressed of grievances
- Liberal grant of leave
- Provision of healthy and hygienic working conditions
- Development of workers education

OBJECTIVES OF THE STUDY

1. To study the level of absenteeism prevailing in the organization
2. To study the major causes of absenteeism in the organization.
3. To identify steps required to control the Absenteeism.
4. To provide suggestions in the form of solutions to reduce the rate of absenteeism

Hypotheses:

Ho(Null hypothesis) - There is significance difference towards the influence of selected factors like Personal, family, health, psychological, financial , social, habit related on job absenteeism.

H 1 (Alternate hypothesis) - There is no significance difference towards the influence of selected factors like Personal, family, health, psychological, financial, social, habit related on job absenteeism.

SCOPE OF THE STUDY

An absent employee means idle machines or unoccupied work space, with the consequent direct loss and an indirect reduction in the tempo of production. Productive efficiency of a plant is adversely affected by absenteeism which causes disorganization in work. Hence the scope of the study throws light on various reasons of absenteeism among the employees. Only the employees' perception falls under the area of the study. This study will serve as a base for further study on labour absenteeism

RESEARCH METHODOLOGY

• DATA COLLECTION

The present study requires the use of both primary data and secondary data. Primary data were collected using a structural questionnaire framed by the Present researcher. Secondary data needed for the study were collected through desk research.

• PRIMARY DATA

The study is mainly based on primary data. Before collecting the primary data, personal interviews were held with officers and employees of the company to collect information.

• SECONDARY DATA

The required secondary data have been collected from unpublished materials published articles from various journals of the company, besides unpublished data have been collected from the records kept at the study unit.

• RESEARCH TOOLS AND TECHNIQUE

Researcher now take up some of the important scaling techniques used in the research. Summated scales or Likert type scales are developed by utilizing the item analysis approach wherein a particular item is evaluated on the basis of how well it discriminates between those persons whose total score is high and those whose score is low. Those items or statements that best meet this sort of discrimination test are included in the final instrument.

Thus, summated scales consist of a number of statements which express either a favourable or unfavourable attitude towards the given object to which the respondent is asked to react. The respondent indicates his agreement or disagreement with each statement in the instrument. Each response is given a numerical score, indicating its favourableness or unfavourableness and the score are totalled to measure the respondent attitude. In other words, the overall score represents the respondent's position on the continuum of favourable – unfavourableness towards an issue.

Most frequently used summated scales in the study of social attitudes follow the pattern devised by Likert. For this reason they are often referred to as Likert type scales. In a Likert scales, the respondent is asked to respond to each of the statements in terms of several degrees ,usually five degrees of agreement or disagreement.

This five point constitute a scale. At one extreme of the scale there is a strong agreement with a given statement and at the other, strong disagreement and between them lie intermediate points. Each point on the scale carries a score. Response indicating the least favourable degree of job satisfaction is given the least score (say 1) and the most favourable is given the highest score (say 5) The same thing is done in respect of each and every statement in the instrument. This way the instrument yields a total score for each respondent, which would then measure the respondent's favourableness towards the given point of view.

DATA PROCESSING TECHNIQUES

Data collected from primary and secondary sources are processed and tabulated according to the objectives of the study.

Tool of Data Analysis

The data analysis and processing are analyzed on the basis of objectives by applying various statistical techniques.

The first hand data is collected from various employees of MSRTC at Nagpur district by survey method as well as face to face interview techniques.

The responses are taken on likert scale of scale 1 to 5.

The data which are collected tabulated in specific format and interpretation are done by applying various statistical techniques.

The type of sample is simple random sampling technique. The data analysis are done considering one tail sample.

Statistical measure like mean, standard deviation are calculated for various responses,

Then statistical technique Z – test applied on various responses from respondent.

A **Z-test** is any statistical test for which the distribution of the test statistic under the null hypothesis can be approximated by a normal distribution. Because of the central limit theorem, many test statistics are approximately normally distributed for large samples. For each significance level, the Z-test has a single critical value (for example, 1.96 for 5% two tailed) which makes it more convenient than the Student's *t*-test which has separate critical values for each sample size. Therefore, many statistical tests can be conveniently performed as approximate Z-tests if the sample size is large or the population variance known. If the population variance is unknown (and therefore has to be estimated from the sample itself) and the sample size is not large ($n < 30$), the Student's *t*-test may be more appropriate.

If *T* is a statistic that is approximately normally distributed under the null hypothesis, the next step in performing a Z-test is to estimate the expected value θ of *T* under the null hypothesis, and then obtain an estimate *s* of the standard deviation of *T*. After that the standard score $Z = (T - \theta) / s$ is calculated, from which one-tailed and two-tailed *p*-values can be calculated as $\Phi(-Z)$ (for upper-tailed tests), $\Phi(Z)$ (for lower-tailed tests) and $2\Phi(-|Z|)$ (for two-tailed tests) where Φ is the standard normal cumulative distribution function.

The simplest Z-test is the 1-sample Z-test, which tests the mean of a normally distributed population with known variance.

test statistic is $z = (\bar{x} - \mu) / (\sigma / \sqrt{n})$, where *n* is the number of observations made when collecting the data for the study, and μ is the true mean when researcher assume the null hypothesis is true. So to test a hypothesis with given significance level α , researcher calculate the critical value of *z* (or critical values, if the test is two-tailed) and then check to see whether or not the value of the test statistic in is in our critical region. This is called a z-test. Researcher are most often concerned with tests involving either $\alpha = .05$ or $\alpha = .01$. When researcher construct our critical region, researcher need to decide whether or not our hypotheses in question are one-tailed or two-tailed. If one-tailed, researcher reject the null hypothesis if $z \geq z\alpha$ (if the hypothesis is right-handed) or if $z \leq z\alpha$ (if the hypothesis is left-handed). If two-tailed, researcher reject the null hypothesis if $|z| \geq z\alpha/2$. So the most common z-values that researcher use are $z.05 = 1.645$, $z.01 = 2.33$, $z.025 = 1.96$ and $z.005 = 2.575$.

The Z- test value by mathematical calculation and by probability method is calculated. As the sample size is large , one sample Z –test method is selected.As the respondent

responses are collected by putting a choices on likert scale and responses are taken on parametric scale. The acceptance or rejection of hypothesis are judged at the 5% level of significance .The Z value by the Z table at 5% level of significance considering sample size is coming out to be 1.96.

The main tool used for analysis of data were Mean , Standard Deviation and Z test statistical method.

RESEARCH DESIGN: Descriptive Research

SAMPLE DESIGN: Simple random sampling

SAMPLE TECHNIQUE: Questionnaire method

SAMPLE UNIT: The Maharashtra State Road Transport Corporation Ltd

SAMPLING SIZE: Sample size is 50 employees.

DATA ANALYSIS AND INTERPRETATION

The respondent were asked questions subject to absenteeism and their responses were taken. The question to respondents is asked on what are the reasons behind absentee of employees.

Response from worker

Symptoms of absenteeism	Strongly Disagree	Disagree	Can't say	Agree	Strongly Agree	Total
Financial Problems	00	07	33	10	00	50
Family problem	00	06	26	18	00	50
Personal problem	00	00	18	31	01	50
Alcohol addiction	00	00	00	39	11	50
Hard duties	00	00	05	33	12	50
Major illness or disease	00	00	18	24	08	50
Low job moral	00	00	14	32	04	50
Poor job respect	00	04	03	38	05	50

Statistical analysis of data collected –

After applying Mean, Standard Deviation , Z standard , the following values are obtained.

Symptoms of absenteeism	Mean	Std dev	P value of z test	Z value
Financial problems	3.06	0.585888	3.57781	1
Family problem	3.24	0.656521	2.58148	1
Personal problem	3.66	0.519419	1.45971	0.999998
Alcohol addiction	4.22	0.418452	1.172417	0.000101
Hard duties	4.14	0.571786	0.546009	0.041696
Major illness or disease	3.8	0.699854	0.63728	0.978346
Low job moral	3.8	0.571429	0.7805	0.993336
Poor job respect	3.88	0.689276	0.38823	0.890846

if only mean values are taken for consideration ,we can interpret the exact nature of reason of employee absenteeism .The ranking can be given to factor more dominant for taking leaves by taking the mean values , we can have the following result of symptoms of absenteeism and its ranking

Sr. No.	Symptoms of absenteeism	Mean	Ranking
1	Alcohol addiction	4.22	1
2	Hard Duties	4.14	2
3	Poor Job respect	3.88	3
4	Major illness	3.8	4
5	Low job moral	3.8	5
6	Personal problem	3.66	6
7	Family problem	3.24	7
8	Financial problem	3.06	8

The bad habit such as alcohol addiction greatly influences the level of absenteeism in the MSRTC .The Alcohol addiction also affect the health of the employees in many ways. The routine health problem has been identified as one of the important reason for frequent absenteeism among the employees.

Poor job respect for work, Bad impression about the work and the perception about the future prospects in the profession has also impacted the employees to a great extent. The personal discussions conducted with the employees also reflect the same viewpoint. Many employees are unsure about their future, a sense of fear and uncertainty engulf their mind always.

Salary is found to be a non determinant in influencing level of absenteeism. Hence employees are very well aware that frequent absenteeism will lower their take home salary.

The above table shows the Z calculated at 0.05 level of significance is 1.96 , where the Z calculated value is greater than table value the Ho is accepted and H1 is rejected that indicates the above statements positively accepted by employees.

CONCLUSION :-

The management needs to approach the problem of absenteeism by focusing on all the major factors identified in the study. Better amenities, enhanced facilities could produce better results in curtailing absenteeism of employees. The best and simplest way to reduce absenteeism is providing counselling to those employees who take leave unnecessarily and making them aware of the problems of absenteeism and their importance at the work place. The rules and regulation relating to attendance must be explained to workers. In order to reduce work load,, management must appoint sufficient employees. Only them the existing employees can work better without any stress or strain and by this absenteeism can be reduced. Improving welfare measures considerably reduces absenteeism. Strict disciplinary measures to reduce absenteeism must be configured.

Finally, absenteeism has been proved to be fatal to the growth of an organization and if unchecked will lead to more attrition and loss of productivity.

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**A STUDY OF NON-PERFORMING ASSET OF BANKS IN INDIA
IN RELATION WITH INDIAN CORPORATE SECTOR**

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ABSTRACT:

India ranks fifth across countries in the world in non-performing assets of banking industry. This severe crisis has been affecting the profitability of all banks but mostly public sector banks. The efforts have been undertaken by government in collaboration with RBI to curb NPAs across banks but these efforts are not giving expected results. Non-performing assets are also affecting the credit lending process of banks as profits have been dried up. It seems that the problem is not limited to only banks but posing a dangerous threat to overall economy. The stress across various sectors in Indian economy is very alarming. This paper tries to understand Non-performing assets, the current status, effect on banks, reasons behind high NPAs and relation with industrial sector in India.

Keywords: *Non-performing assets, NPA, Scheduled commercial bank, Indian Corporate sector*

INTRODUCTION

A proper financial sector is of special importance for the economic growth of developing and underdeveloped countries. The commercial banking sector which forms one of the backbones of the financial sector should be well organized and efficient for the growth dynamics of a growing economy.

In India, as in many developing countries, the commercial banking sector has been the dominant element in the country's financial system. The sector has performed the key functions of providing liquidity and payment services to the real sector and has accounted for the bulk of the financial intermediation process. Besides institutionalizing savings, the banking sector has contributed to the process of economic development by serving as a major source of credit to households, government, and business and to weaker sectors of the economy like village and small-scale industries and agriculture. Over the years, over 30-40% of gross household savings has been in

the form of bank deposits and around 60% of the assets of all financial institutions accounted for by commercial banks. A large number of reform measures have been undertaken within the framework of the new Economic policy 1991. GDP growth rate for last 10 years (2007-2017) is around 7-8% (avg.)

The Indian banking system consists of 27 public sector banks, 26 private sector banks, 46 foreign banks, 56 regional rural banks, 1,574 urban cooperative banks and 93,913 rural cooperative banks, in addition to cooperative credit institutions. Public-sector banks control more than 70 per cent of the banking system assets, thereby leaving a comparatively smaller share for its private peers (www.ibef.org)

Banking industry in India is currently facing NPA crisis. Non-Performing assets (NPA) also known as Non-Productive Assets are integral part of bank's operations. In simplified terms, bank deposits money and then lend part of it. It earns interest on the money lent. It is expected that borrower will pay interest also the capital at its maturity. But when borrower gets defaulted, bank loses both: income and capital. It also adversely affects credit-dispensation process. In addition to this, banks need to create provisions for NPAs which reduces their profitability in the end.

Persistently high levels of NPAs may make banks fragile which can result in collapse of bank. This will have disastrous effect on economy. Thus, it becomes important for banks to keep NPA level as low as possible.

Loans and Advances are classified as performing and nonperforming, based on the guidelines/ directives issued by the RBI. Loan Assets become Non-Performing Assets (NPAs) where: i. In respect of term loans, interest and/ or installment of principal remains overdue for a period of more than 90 days; ii. In respect of Overdraft or Cash Credit advances, the account remains "out of order", i.e. if the outstanding balance exceeds the sanctioned limit/ drawing power continuously for a period of 90 days, or if there are no credits continuously for 90 days as on the date of balance sheet, or if the credits are not adequate to cover the interest debited during the same period; iii. In respect of bills purchased/ discounted, the bill remains overdue for a period of more than 90 days; iv. In respect of agricultural advances: (a) for short duration crops, where the installment of principal or interest remains overdue for two crop seasons; and (b) for long duration crops, where the principal or interest remains overdue for one crop season.

Currently, India with NPA of 9.85 (Dec, 2017) is 5th highest NPA level in the world. Few experts assume it to be around 15-16% considering restructured loans etc. This

paper studies the reasons behind high NPA level in Indian banking industry with relation to real economy.

Review of literature:

Many articles, speeches, research papers etc. have been published on the said topic during last many years. Rajeshwari Sengupta and Harsh Vardhan (2017) in their study on Non Performing assets: This time it is different has stated that the NPA problem started assuming serious proportions roughly from 2013 onward. They have also mentioned that banks need to tighten their credit dispensation mechanism. Mr. Raghuram Rajan, former RBI governor, in his speech on Resolving stress in the banking system has stressed that cleaning up bank balance sheets and the restoration of credit growth are important for economy. He has also pointed the role of willful defaulters in his speech. CARE ratings in NPAs in Banks – June 2017 published in August, 2017 has mentioned that the performance of banks regarding NPAs are not positive. It has also highlighted the large share of public sector banks in total NPAs. Rakesh Mohan and Partha Ray (Jan 2017) in their study on Indian Financial Sector: Structure, trends and turns (IMF working paper) has said that the infrastructure and steel sectors are major cause of stress in banking sector. They have also mentioned that there could be departure from standard lending process and due diligence. The parliamentary standing committee on Finance in their report Non-Performing assets of Financial Institutions (2016) has said that willful defaulters constituted 21% of total NPAs. Credit Suisse in their report House of Debt (Oct 2015) has said that major industrial groups in India are facing debt crisis and the recovery of loan from them seems to be bleak. Credit Suisse in India Corporate Health tracker (Feb 2016) estimated that Indian banks need Rs. 860 billion over the period of next 12 years. They have also raised concerns over the recovery of debt from major sectors as well as highlighted the point that banks are under a great stress.

Research and time gap in literature:

There is a large amount of research is done on the said topic but most of research papers lack the important cause of higher NPAs.

Objectives of the Study:

1. To study the status of Non-performing assets in Indian commercial banks
2. To study the causes of NPAs in banks.
3. To know debt of Indian corporate sector and its impact on banks NPAs.

Limitations of the Study:

1. There is time-gap between Indian corporate sector debt and banks NPAs. Banks NPAs have been considered till March 2017.
2. The report has been prepared without foreseeing the future developments.

Scope of the study:

1. The study could help banks to identify real reasons behind their NPAs.
2. This should help companies to identify the stress in their sector and make strategies according to it.
3. The study will help to take measures to control NPAs.

Sources of data:

The data collected is mainly secondary in nature. Most of the data has been collected from Reserve bank of India, Credit Suisse report, Indian banking report, various magazines and books dealing with current bank scenario.

Analysis of Data

Table 1: Gross Advances and gross NPAs of Scheduled commercial bank (in Rs. Million)

As on March 2017						
Year	Banks	Gross NPAs	Yearly increase (%)	Gross Advances	Yearly increase (%)	Gross NPAs to Gross Advances Ratio (%)
2017	STATE BANK OF INDIA & ITS ASSOCIATES	1778106	45.78	19519311	2.15	9.11
	NATIONALISED BANKS	5069217	21.28	39144423	0.08	12.95

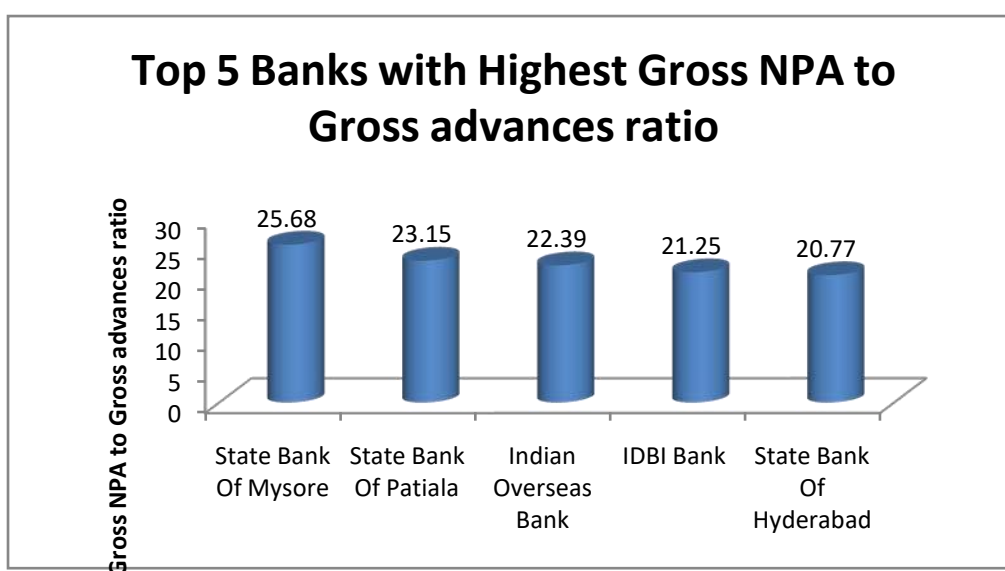
	PRIVATE SECTOR BANKS	919146	64.56	22667207	14.91	4.05
2017	ALL SCHEDULED COMMERCIAL BANKS(includes foreign banks also)	7902680	29.21	84767053	3.74	9.32
2016	STATE BANK OF INDIA & ITS ASSOCIATES	1219686	65.92	19107755	11.15	6.38
	NATIONALISED BANKS	4179878	103.94	39111756	0.35	10.69
	PRIVATE SECTOR BANKS	558531	65.78	19726588	22.73	2.83
2016	ALL SCHEDULED COMMERCIAL BANKS	6116074	89.40	81711142	8.07	7.48
2015	STATE BANK OF INDIA & ITS ASSOCIATES	735084	-7.90	17191685	6.86	4.28
	NATIONALISED BANKS	2049595	39.01	38975490	8.05	5.26
	PRIVATE SECTOR BANKS	336904	39.31	16073394	18.16	2.10
2015	ALL SCHEDULED COMMERCIAL BANKS	3229161	22.77	75606658	9.96	4.27
2014	STATE BANK OF INDIA & ITS ASSOCIATES	798165	27.14	16087376	13.38	4.96
	NATIONALISED BANKS	1474474	45.01	36071821	14.83	4.09
	PRIVATE SECTOR BANKS	241835	18.65	13602528	18.15	1.78

2014	ALL SCHEDULED COMMERCIAL BANKS	2630152	36.44	68757479	15.14	3.83
2013	STATE BANK OF INDIA & ITS ASSOCIATES	627785	-	14188827	-	4.42
	NATIONALISED BANKS	1016831	-	31412859	-	3.24
	PRIVATE SECTOR BANKS	203817	-	11512463	-	1.77
2013	ALL SCHEDULED COMMERCIAL BANKS	1927688	-	59718199	-	3.23

Source: dbie.rbi.org.in

Gross NPAs of all scheduled commercial bank has increased by 300% in last 4 years (2013-17) with only 41% increase in gross advances over the same period. 86% of total NPAs are with public sector banks. Nationalized banks (excluding State bank and its associates) alone bear 64% of gross NPAs.

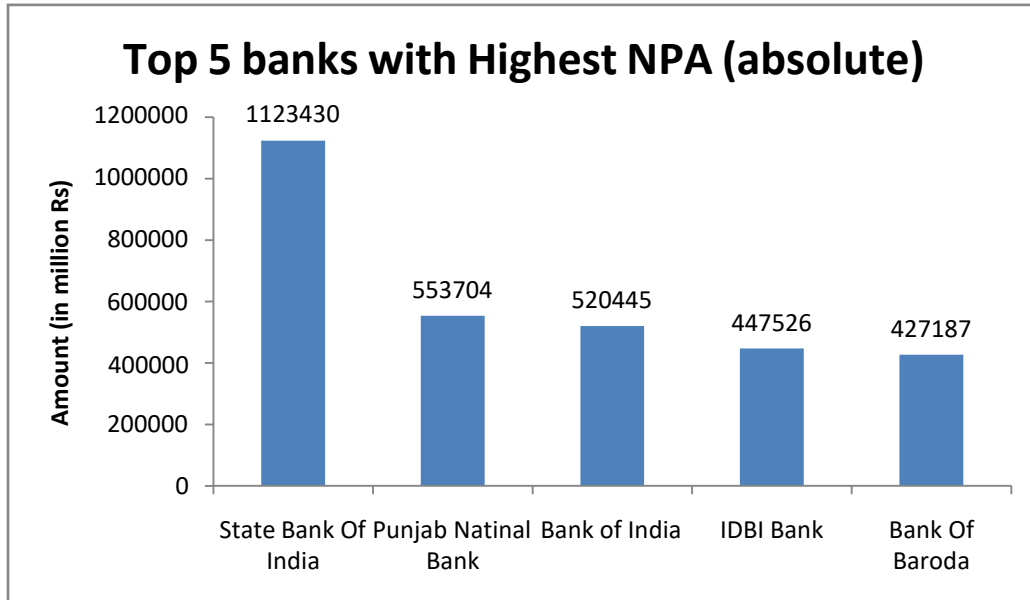
Table 2: Top 5 banks with Highest Gross NPA to gross advances ratio



Source: dbie.rbi.org.in

The top 5 banks with highest Gross NPA to Gross advances ratio are: State bank of Mysore, State bank of Patiala, Indian overseas bank, IDBI bank, State bank of Hyderabad. State bank of Mysore has highest 25.68%. All are public sector banks.

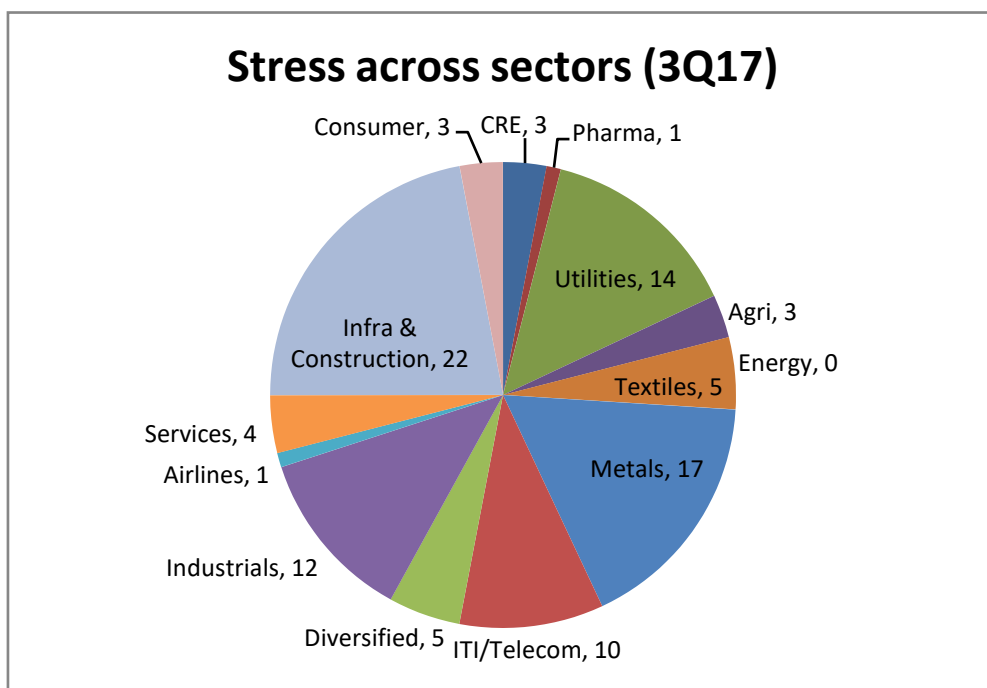
Table 3: Top 5 banks with Highest NPA (absolute)



Source: dbie.rbi.org.in

In absolute terms, State bank of India has highest NPA with 1123430 million Rs. (1, 12,343 cr.) which is almost double of Punjab National Bank. All top five banks are from Public sector.

Table 4: NPA Stress across Indian industrial sector



Source: Credit Suisse report: India corporate health tracker (Feb 2017)

Infra and Construction sector contributes 22% of total NPA while Metals, Industrials, Utilities and IT/Telecom sector follows it.

Other related data:

The IAC noted that under the recommended criterion, 12 accounts totaling about 25 per cent of the current gross NPAs of the banking system would qualify for immediate reference under IBC. (RBI Press release, June 13, 2017)

The 12 accounts are led by SBI (six of them), PNB, ICICI Bank, Union Bank, IDBI Bank and Corporation Bank, according to bankers. These accounts have an exposure of more than Rs 5,000 crore each, with 60% or more classified as bad loans by banks as of March 2016.

The first set of six troubled accounts are Bhushan Steel (Rs44, 478 crore), Essar Steel (Rs37, 284 crore), Bhusan Power and Steel (Rs37, 248 crore), Alok Industries (Rs22, 075 crore), Amtek Auto (Rs14, 074 crore) and Monnet Ispat (Rs 12,115 crore), a banker said.

According to RBI, these 12 accounts owe Rs 2.5 trillion (Rs 2.5 lakh crore) to the system, which constitute around 25% of gross bad loans.

The other accounts named for bankruptcy action, according to bankers, include Lanco Infra (Rs44, 364.6 cr), Electrosteel Steels (Rs10, 273.6 crore), Era Infra (Rs10, 065.4 crore), Jypae Infratech (Rs9, 635 crore), ABG Shipyard (Rs6, 953 crore) and Jyoti Structures (Rs5, 165 crore).

	Company Name	Amount (mn Rs.)
NPA	Bhushan Steel ltd.	448858
	Alok Industries ltd	229192
	Electrosteel ltd	113040
	IVRC ltd	108626
	Era Infra Engg. Ltd.	65091
	Sterling Biotech ltd	79197
	Moser Baer India ltd.	61962

	Company Name	Amount (mn Rs.)
Restructured accounts	Lanco Infratech Ltd.	454352
	Hindustan Construction ltd.	114466
	Jindal Stainless ltd.	102916
	Bajaj Hindustan Sugar ltd.	70766
	S E L Manufacturing Co. Ltd.	59191

Source: Credit Suisse report: India corporate health tracker (Feb 2017)

Findings:

- Gross NPAs of all scheduled commercial banks in March 2017 is 7.9 lakh cr while it was 1.9 lakh cr in March 2013.
- Gross NPA to advances ratio increased from 3.23% in March 2013 to 9.32% in March 2017.
- State bank of Mysore has highest 25.68% gross NPA to advances ratio
- In absolute terms, State bank of India has around 1.12 lakh crore NPA as on March 2017 while it is 55,370 cr in Punjab National Bank.
- Infra and construction sector contributes 22% of total NPA in banking industry. Metals and Industrials sector come second and third respectively.
- Most of NPAs are being borne by large accounts and industrial sector.
- Bhushan Steel is having NPA of 44,858 crore while Alok industries owes 22,919 crore.
- 12 accounts are having around 25% of total gross NPAs of banking industry.

Recommendations:

- The strict monitoring and risk analysis of banking industry should be done periodically by RBI
- The banks should develop strict credit disposal system to small as well as large lenders.
- If the lender is willful defaulter, the policy of disclosing names should be carried out and penalties can be increased.
- Quick and effective investigation mechanism should be put to keep check on fraudsters.
- The loan approval system should be immediately revamped to keep check on bankers.
- The government should improve the governance of public banks which should help in loan evaluation, monitoring and repayment.
- The infusion of capital into banking industry becomes necessary for the survival of banks.

Conclusion:

The banks always face some part of their advances as non-performing assets and make provisions for that in their balance sheet. The Indian banks have been consistently facing NPAs over the period of last several years. It does not only affect the profitability but also may force bank into the dangerous crisis. The current state of

banking industry is very severe as NPA crisis is larger than never before. This study highlights that Non-performing assets of the banking industry is comparatively very high and most of public sector banks are in critical condition. It has been understood that NPA crisis has been mostly caused by industrial sector in India. Stress across various sectors in Indian economy is giving alarming signs. The overall slow growth rate of these Indian companies and sectors poses a problem to the recovery of NPA. Though the efforts have been taken by government to curb NPAs in banks, also the process of recovery is very slow. So, the crisis of NPA needs to be dealt with very urgently and systematic efforts are need to be taken otherwise it will not only hard hit banks but also overall Indian economy.

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**ELECTRIC VEHICLES – CHANGING ENVIRONMENT FOR
INDIAN AUTOMOTIVE INDUSTRY**

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ABSTRACT:

Environmental & Climate Change Considerations and Crude Oil Volatility is driving the Global Automotive Industry towards the Battery operated Electric Vehicles (EVs). The EV's are also now gaining the attention across India with the policies of Indian Government encouraging penetration of EVs.

One of the most critical and key factor for successful penetration for EVs in India will be undoubtedly the development, supply and cost of Lithium Ion Batteries. Currently the EVs are costlier than conventional Internal Combustion (IC) engine vehicles. Lithium Ion Batteries constitute about 1/3rd of total Costs of an EV. Lithium Ion Batteries will be the most critical factor in the entire supply chain of EV Ecosystem which would decide the EV Industry future. The development and establishment of Automotive Lithium Ion Battery Industry in India will go long way in larger and quicker penetration of EVs.

As of now, India largely depends on countries such as China, Japan & South Korea for importing Li-ion batteries. However, the scenario is changing and the Indian Automotive Industry and Battery Industry are seeking solutions considering various scenarios. Emerging Scenarios are: Import of cells from renowned Lithium ion Battery Manufacturer across globe and setting of plants in India for assembling these cells into Battery Packs, the vertical integration of a renowned Lithium producer, Lithium Ion battery producer and an automobile manufacturer in a single company, tie up of an automobile manufacturing company with renowned Lithium ion Battery Manufacturers for setting up plant in India, the expansion of a Lithium Ion battery producer into automobile production and establishment of EV manufacturing units in India by EV multinational by way of Joint Ventures and collaborations.

The paper highlights the Critical role of Lithium ion Battery for an EV, discusses current key players in Lithium Ion Battery supply chain beginning with Lithium suppliers, Lithium ion Battery Manufacturers, reviews the current Indian scenario with

these aspects and attempts to project best possible scenario for penetration of EVs in India.

Keywords: *Changing Environment, Electric Vehicles, Lithium Ion Battery and Penetration of EVs*

1. Introduction

The Indian Electrical Vehicle Industry has begun to flourish. As far as Electric 2 Wheelers, Cars and Buses are concerned, while in FY 16-17, over 25,000 electric vehicles were sold, In FY 17-18, the sale of Electric vehicles reached 56,000 . Electric Rickshaws are also penetrating Indian markets in huge numbers. Annual sales of Electric Rickshaw is expected to increase about 9% by 2021¹.

Environmental & Climate Change Considerations and Crude Oil Volatility is driving the Automotive Industry towards the Battery operated Electric Vehicles (EVs). One of the most critical and key factor for successful penetration for EVs in India will be undoubtedly the development, supply and cost of Lithium Ion Batteries. Currently the EVs are costlier than conventional IC engine vehicles. Lithium Ion Batteries constitute about 1/3rd of total Costs of an EV.

As of now, India largely depends on countries such as China, Japan & South Korea for importing Li-ion batteries. However, the scenario is changing and the Indian Automotive Industry and Battery Industry are seeking solutions considering various scenarios such as import of cells of Batteries and setting of assembling units in India, Vertical Integration of Key players in the Battery & EV supply chain, Joint Ventures and collaborations between Lithium miners , Cell , Module and Battery pack integrators and Vehicle Manufacturers and setting of vehicle manufacturing plants by EV multinationals in India . The development of this kind of set-ups for production of Lithium Ion Batteries in India and EVs is highly essential for deeper, quicker & larger penetration of EVs in India.

2. Lithium Ion Batteries - Critical Aspect for an EV

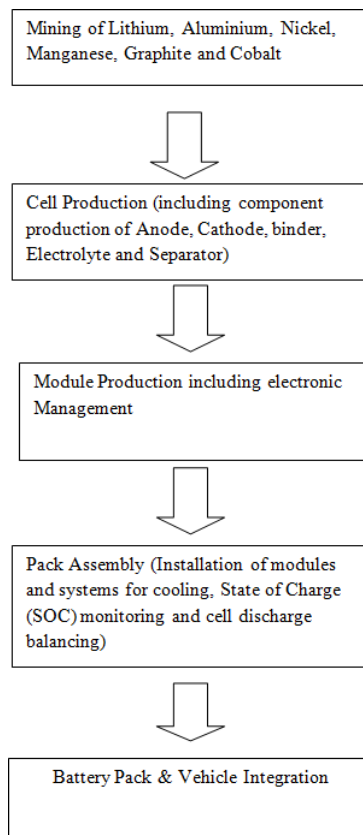
Lithium Ion Batteries will be the most critical factor in the entire supply chain of EV Ecosystem which would decide the EV Industry future. Two fundamental characteristics that make Lithium Ion Batteries superior are Power Density and Energy Density. For Automotive EV applications it is desirable to have both high power density and high energy density to make it competitive with Internal Combustion (IC)

engine vehicles. While High power density is required to have powerful vehicle, High energy density is essential for higher range in km per charge. Lithium ion Batteries are advantageous in this regard. Lithium is light-weight. It can be easily fabricated into large battery packs for use in Electric Vehicles. One more important characteristic of Lithium ion batteries is that they are reusable, as they can be extracted from depleted batteries and recycled for use in new batteries. Given the above advantages, the types of EV batteries currently being considered by Industry globally are predominantly Lithium Ion based Batteries. The most prominent technologies are Lithium ion-Phosphate (LFP), Lithium- Nickel- Cobalt –Aluminum (NCA), Lithium-Nickel-Manganese Cobalt (NMC), Lithium-Manganese-Spinal (LMO) and Lithium Titanate (LTO) Batteries. The Indian Electric Vehicle manufacturers are mainly considering Lithium ion phosphate (LFP) and Lithium- Nickel- Cobalt –Aluminium (NCA) batteries.

3. The Emerging Scenarios for Lithium Ion Batteries

The Figure 1 below depicts the typical Supply Chain for Lithium-Ion- Battery manufacturing.

Figure 1: Supply Chain for Lithium Ion Battery



For the EV industry to flourish in India, Development of Lithium Ion Battery Industry will be critical. Many companies ranging from automobile manufacturers, automobile component manufacturers to power and energy providers are rolling out plans to make Lithium Ion Batteries locally in India to cash on the wave for Electric Vehicles in India. Potential for Lithium Ion Battery makers is going to be tremendous in the years to come.

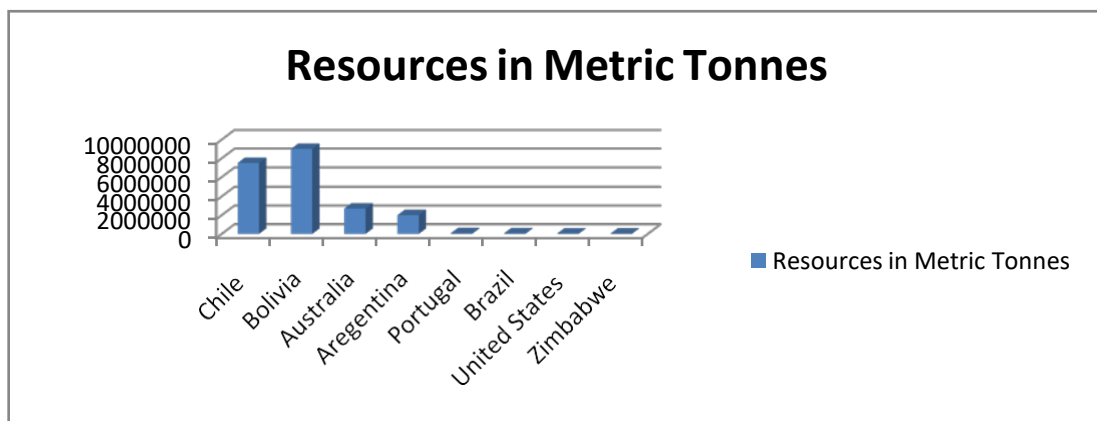
Scenarios which are emerging are: Import of cells from renowned Lithium ion Battery Manufacturers across globe and setting of plants in India for assembling these cells into Battery Packs; The vertical integration of a renowned Lithium miner , Lithium Ion battery producer and an automobile manufacturer in a single company; Tie up of an Automobile Manufacturing Company with renowned Lithium ion Battery Manufacturers for setting up plant in India; The expansion of a Lithium Ion battery producer into automobile production and establishment of EV manufacturing units in India by EV multinational by way of Joint Ventures and collaborations.

Before we touch upon the emerging Indian scenario, it is important to touch upon the prevailing global scenario beginning with production of Lithium, which is discussed below.

Global Scenario

The graph 1 below depicts the countries with the largest lithium resources worldwide.

Graph 1: Lithium Resource Countries



(Source: <https://www.statista.com>² & <http://minerals.usgs.gov>³)

As can be seen from above , the world’s top 4 lithium-rich countries are Bolivia , Chile, Australia and Argentina. The region comprising Chile, Bolivia and Argentina is known globally as ‘Lithium Triangle’. The Lithium Triangle is known for its high quality salt flats including Bolivia's Salar de Uyuni, Chile's Salar de Atacama, and

Argentina's Salar de Arizaro. The Lithium Triangle is understood to hold over 75% of existing known lithium reserves globally.

The first step involved in Lithium Battery Supply chain is extraction and mining of Lithium. Lithium salts are extracted from water in mineral springs, brine pools, and brine deposits. Lithium is also produced from hard rocks. Extraction of Lithium from sea brine is less expensive, as compared to that from hard rock⁴. The commercialization of Lithium production has begun.

Till recently most of the world's Lithium was produced by companies namely Albemarle from US and Chile , Sociedad Quimica y Minera de (SQM) from Chile and Food Machinery Corporation (FMC) from Argentina . However, the list of the world's top lithium-mining companies has changed in recent years. The companies mentioned above still produce the majority of the world's lithium, but China accounts for a large chunk of output as well. The Asian nation has recently become the fourth-largest lithium-producing country in terms of mine production. Tianqi Lithium and Jiangxi Ganfeng Lithium are the two major Chinese companies involved in Lithium production⁵.

The next step involved in supply chain is Cell, Module and Pack assembling followed by battery pack and vehicle integration. Tesla, United States follows the model of Integrated Battery Manufacturing. By mid-2018, battery production at Giga factory of Tesla , the US Electric Car producer reached 20 GWh, making it the highest-volume battery plant in the world. With this high volume of production, Tesla's cost of battery cells is expected to come down. By virtue of this Tesla's products will be able to penetrate the EV market globally.

Tesla's giga factory is followed by Contemporary Amperex Technology Co. Limited (CATL), China, with a capacity of 12 GWh. CATL is followed by Panasonic and BYD. Japan's Panasonic has the production capacity of 10 GWh, and China's BYD comes next with 7.2 GWh. Another China-based maker, Optimum Nano Energy Co. Ltd., and South Korea's LG Chem follows these companies producing 5.5 GWh and 4.5 GWh respectively. Some of the other major players involved in the production are Samsung, Toshiba, Denso and Leclanché SA.

Emerging Indian Scenario:

In India, lead-acid battery manufacturer, Exide Batteries, has planned to set up a Lithium Ion Battery plant. It will be a Joint Venture with Leclanché SA, Switzerland. As part of the JV, Leclanché will provide access to its knowhow and intellectual

property for lithium-ion cells, modules and battery management systems and Exide Industries will leverage its extensive sales network and brand. The JV's production plant will be based in Gujarat. A module and battery pack assembly line is expected to be operational by second quarter of 2019 and a lithium-ion cell production plant is expected to be in operation by mid 2020. In the intervening period, cells will be sourced from Leclanché's plant in Willstätt, Germany⁶.

The Indian vehicle manufacturers are also lining up their plans for production of Lithium-ion Batteries in India. While Maruti Suzuki's parent company Suzuki Motor Corporation (SMC) has tied up with Toshiba and Denso to set up the country's first lithium-ion battery manufacturing facility in Gujarat at an investment of Rs 1150 crore, homegrown auto major Mahindra & Mahindra has firmed up plans to pump in Rs 1000 crore (through its arm Mahindra Electric) to expand electric vehicle manufacturing capacity at its Bengaluru facility, set up a R&D centre and a new battery manufacturing unit in Chakan, Maharashtra . Mahindra has forged an alliance with South-Korea's LG Chem to make Lithium Ion batteries in India⁷.

The Bus manufacturers such as Tata Motors limited , Ashok Leyland Ltd , VE Commercial Limited and BYD are also ramping up their plans for manufacturing of Electric Buses.

The other companies such as Exicom, Amaron, Greenfuel Energy Solutions, Trontek, Coslight India, Napino Auto & Electronics, Trinity Energy Systems and Versatile Auto Components have also rolled out their plans to make Lithium Ion Batteries locally. Bharat Heavy Electricals Limited (BHEL) has started talks with a US-based company to form a joint venture in India to manufacture lithium-ion batteries for electric vehicles (EVs).

4. Conclusion

The development & setting up of Lithium Ion Battery manufacturing facilities in India is critical for an EV industry to flourish in India.

It is said that "Lithium" is the next crude oil . Drawing this analogy further, the resemblance of setting up of Lithium Ion Battery manufacturing facilities can be linked with setting up of Crude oil refineries in India. As the crude oil refineries are backbone for efficient and uninterrupted supplies of conventional fuels for operation of IC engine vehicles, so will be the case of Lithium ion Battery manufacturing for penetration & operation of EVs in India.

It will be important for setting up of Lithium Ion Battery manufacturing plants with huge GWh capacities on the lines of Tesla plant in US , and in India , besides setting up of plants having low & medium capacities for the upcoming EV Industry in India . Establishment of such facilities will be the key factor going forward. As discussed above, the process has already began to change the environment for Indian Automotive Industry.

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**A STUDY OF EMPLOYEE ENGAGEMENT MODELS TO BUILD
NEW BUSINESS APPROACHES**

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ABSTRACT :

Objectives: The objective of this paper is to discuss the significance of the employee engagement in the organization through various models of employee engagement proposed by researchers and consulting firms. And also discuss various factors /drivers that keep the employees motivated and engaged.

Methods/Statistical Analysis: For this study, researchers have used review method. For the process of review around twelve academic research papers and reports of research firms in the area of employee engagement have been reviewed.

Findings/ Suggestions : The study suggests that the organizations should take care of their employees and provide an atmosphere where they should feel valued and involved in the work. An engaging environment will lead to better performance of the employee as an individual as well as the organization as a whole.

Application: This paper will be of value to anyone seeking better understanding in employee engagement to improve organisational performance.

Key Words : *Employee engagement, Employee engagement models, Drivers of employee engagement.*

I. INTRODUCTION:

A key component of any organization is its employees. The employees are critical to the viability and the competitiveness of the organization. Out of several resources available to the organizations, management of human resource, in general, and keeping the employees engaged in the work place, in particular, has become the most sensitive aspect that plays a crucial role in the success or failure of the business today. Engaged employees are invaluable assets to an organization. High levels of employee engagement in domestic and global firms promote retention of talent, foster customer loyalty, and improve organizational performance and stakeholder value.

Dealing with employee engagement is nothing but handling successfully the complex feelings, emotions and psychological state of minds of the employees. While engaged employees have a positive attitude and self-commitment to deliver better outcomes for the success of the organization; an imbalance in the 'effort-reward' or 'work-life' would essentially generate higher stress among the employees that may result burnout and further staff-turnover in the organization.

William Kahn in 1990's conceptualized employee engagement as the "harnessing of organizational members' selves to their work roles. In engagement, people employ and express themselves physically, cognitively, and emotionally during role performances." Further, Maslach & Leiter (1997) stated that "Engagement, as an opposite of burnout, is characterised by energy, involvement, and efficacy. Engaged employees have a sense of energetic and effective connection with their work activities and they see themselves as able to deal completely with the demands of their job."

Rothbard (2001) explained it as the "psychological" presence including attention, or cognitive availability of the employee spending time in thinking about a role and his intensity of focus on the role. It refers to a positive, fulfilling, work-related state of mind that is characterized by a personal involvement with enthusiasm, vigor, dedication, and absorption (Schaufeli, Salanova, González-Romá & Bakker (2002)). Engagement, essentially, is a two-way relationship between the employer and the employees, where the employees are positively, emotionally and intellectually committed to their organization and its success, largely by providing sustainable discretionary effort (Tower-Perrin, 2003; Hewitt Associates, 2004; Robinson et al., 2004). On this context Mercer (2007) expressed it as a state of mind in which employees feel a vested interest in the company's success and are both willing and motivated to perform to levels that exceed the stated job requirements. It is the result of how employees feel about the work experience – the organization, its leaders, the work and the work environment. They must feel positive emotions toward their work to be personally meaningful, consider their work-load to be manageable, and have hope about the future of their work (Nelson and Simmons, 2003).

Highly engaged employees feel and react in ways that shows greater levels of commitment towards their company. They pay the full degree of their knowledge and abilities to help an organization succeed and even encouraging others to do so as well. They recognize with the company's mission, values and products, and establish a real linking to the work they do, along with a sense of pride in doing it well.

There are different kinds of engagement like

- a. Intellectually engaged employees who are constantly improving the company with creative ideas and maintaining a positive view of both the company itself, and their relationship with it.
- b. Emotionally engaged employees are who are proud and enthusiastic and passionate about the company.
- c. Behaviourally engaged employees who are willing to go above and beyond for the company, their customers, and their team members while advocating on behalf of company and remaining loyal.

II. EMPLOYEE ENGAGEMENT MODELS

The below mentioned models have been taken for understanding the basic concept of engagement and has helped in creating further interest in the topic which led to the outcome of this study.

1. Institute of Employment Studies (IES) :

IES conducted an attitude survey in 2003 in 14 organizations with more than 10,000 employees. They developed a diagnostic tool using a regression model, to identify the most influential inputs to employee engagement

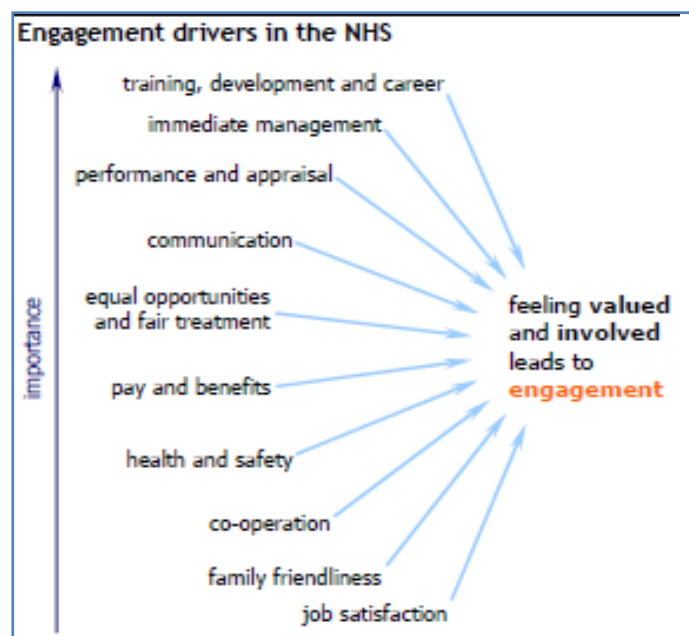


Figure 1: IES survey 2003

This study indicates that experience of, and opinion about, various aspects of work life are strongly correlated with engagement levels. Some of the strongest drivers were involvement in decision-making, opportunities employees have to develop their jobs,

organisation's concern for employees' health and well-being and the extent to which employees feel, they able to voice their ideas, and managers listen to these views, and value employees' contributions

As a result of their survey, IES has provided the general lessons for organizations. Accordingly the presence of these building blocks raises the engagement levels of employees: a development focus, two-way communication, good quality line management, effective internal co-operation, commitment to employee well-being and clear, accessible HR policies and practices, to which managers at all levels are committed.

2. International Survey Research Approach

International Survey Research's (ISR) (2003) approach to measuring employee engagement, focuses on three interrelated components namely cognitive (think), affective (feel) and behavioural (act). They studied engagement using survey data from 3,60,000 and more employees from 41 companies all over the world. Through their study, they have found a significant correlation between highly engaged employees and corporate financial performance.

According to ISR, cognitive (think) occurs- when an individual agrees with the mission, values and goals of the organisation, resulting in a sense of belongingness. The affective (feel) occurs- when employees feel a sense of pride in their association to the organization. This element is closely correlated with organizational loyalty.

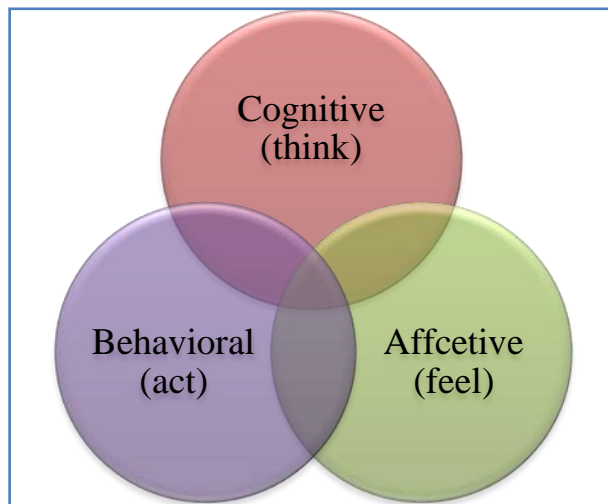


Figure 2: ISR model

The last and most critical element is the behavioural (act) element. It depicts the actions, the individual within the organisation will display, thus reinforcing their beliefs and feelings.

These three components should be measured so that the organization can design relevant and effective interventions to improve the levels of engagement within the organization.

3. Job Demands-Resources (JD-R) model:

This model(Bakker et al., 2003b; c; Demerouti et al., 2001a, b) lies on the assumption that every occupation may have its own risk factors that can be categorized into two general categories- i) job demands and ii) job resources, thus constituting an overarching model which may be applied to various occupational settings.

Job demands refer to those psychological, social, physical, or organizational aspects of the job that require sustained psychological (cognitive and emotional) and/or physical effort or skills and are therefore associated with certain psychological and/or physiological costs.

Job resources refer to those, psychological, social, physical or organizational aspects of the job that are either/or: a. Stimulate personal growth, learning, and development b. Functional in achieving work goals c. Reduce job demands and the associated physiological and psychological costs.

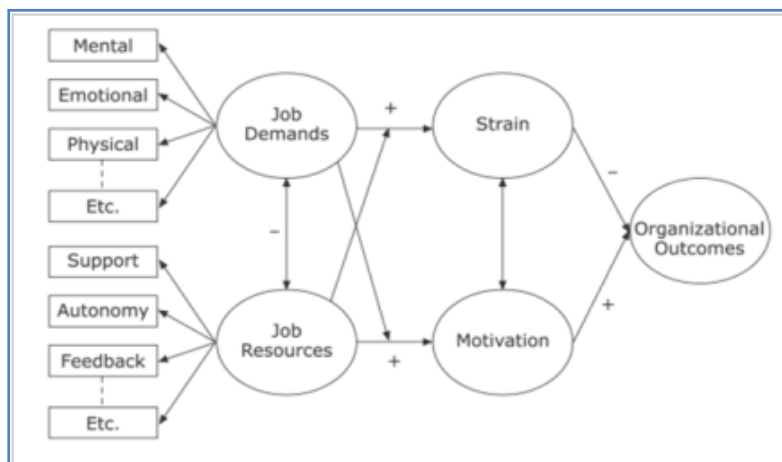


Figure 3: The Job Demands-Resources model

The development of job strain and motivation results from two different underlying psychological processes namely a. health impairment process and b. motivational process.

In the health impairment process, poorly designed jobs or chronic job demands create exhaustion of employees' mental and physical resources leading to the depletion of energy and to health problems. Through the motivational process, job resources may play either an intrinsic or an extrinsic motivational role by exerting their motivating

potential and leading to high work engagement, excellent performance, and low cynicism.

4. Aon Hewitt’s Engagement Model

Aon Hewitt defines engagement in very specific behavioural terms- as the state of emotional and intellectual involvement that motivates employees to do their best work. Employees are engaged when they i) Say - speak positively about the organization to co-workers, potential employees and customers ii) Stay - have an intense desire to be a member of the organization and iii) Strive - exert extra effort and are dedicated to doing the very best job possible to contribute to the organization's business success.



Figure 4: AON Hewitt Model of Employee Engagement

This employee engagement model has been tested and validated by over 15 years of research on millions of employees across a variety of companies and industries, and across Asia Pacific, Europe, Latin America, and North America. The model is supported by years of research in the area of organizational psychology.

Their research has shown that there are typically six major categories (and 22 organizational antecedents), known as “Engagement Drivers”—factors that can potentially drive an individual’s engagement, as shown in the diagram below.



Figure 5: AON Hewitt Model of Employee Engagement

This model also shows how business will also be benefited as shown in the last column and is explained below: a) Increased wellness, retention and talent thereby reduction in absenteeism. b) Therefore the safety and operational productivity increases. c) If internal customer is cared by the company then the external customers will be taken care by them. This results in retention of prospective customers, their satisfaction, and thereby, the net profits. d) As a result of these the revenues, operational income and shareholders returns increases.

5. Blessing White’s Engagement model

The Blessing White’s engagement model focuses on an individual’s – a) contribution to the company’s success and b) personal satisfaction in the role.

The Blessing White’s research team believes that aligning employees’ values, goals, and aspirations with those of the organization is the best method for achieving the sustainable employee engagement required for an organization to reach its goals.

Through their research BlessingWhite has developed a X-model of employee engagement. The index used to determine an employee’s level of engagement contains items that reflect contribution and satisfaction on two axes.

Their engagement model helps in identifying 5 distinct employee segments by plotting the survey population on two axes. Full engagement represents an alignment of maximum job satisfaction (“I like my work and do it well”) with maximum job contribution (“I help achieve the goals of my organization”).

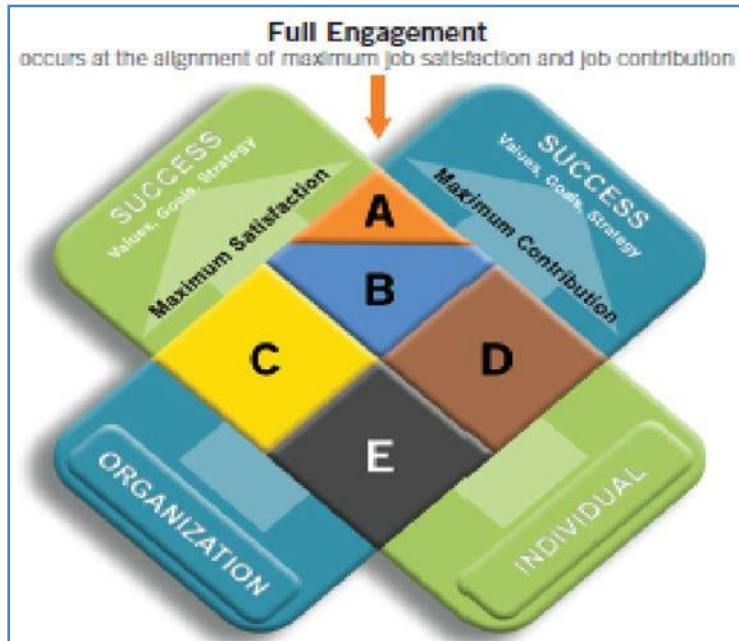


Figure 6: Blessingwhite Engagement Model

Level	Description
A	<p>The Engaged: High contribution & high satisfaction</p> <p>These employees are at “the apex” where personal and organizational interests align. They contribute fully to the success of the organization and find great satisfaction in their work. They are known for their discretionary effort and commitment. When recruiters call, they cordially cut the conversation short. Organizations need to keep them engaged, because they can transition over time to any of the three adjacent segments, a move that would likely impact workforce morale and the bottom line</p>
B	<p>Almost Engaged: Medium to high contribution & satisfaction</p> <p>A critical group, these employees are among the high performers and are reasonably satisfied with their job. They may not have consistent “great days at work,” but they know what those days look like. Organizations should invest in them for two reasons: They are highly employable</p>

		and more likely to be lured away; they have the shortest distance to travel to reach full engagement, promising the biggest payoff.
C	<p>Honeymooners & Hamsters: Medium to high satisfaction but low contribution</p>	Honeymooners are new to the organization or their role — and happy to be there. They have yet to find their stride and clearly understand how they can best contribute. It should be a priority to move them out of this temporary holding area to full alignment and productivity. Hamsters may be working hard, but are in effect “spinning their wheels,” working on non-essential tasks, contributing little to the success of the organization. Some may even be hiding out, curled up in their cedar shavings, content with their position (“retired in place”). If organizations don’t deal with them, other employees may grow resentful or have to pick up the slack.
D	<p>Crash & Burners: Medium to high contribution but low satisfaction</p>	Disillusioned and potentially exhausted, these employees are top producers who aren’t achieving their personal definition of success and satisfaction. They can be bitterly vocal that senior leaders are making bad decisions or that colleagues are not pulling their weight. They may leave, but they are more likely to take a breather and work less hard, slipping down the contribution scale to become Disengaged. When they do, they often bring down those around them.
E	<p>The Disengaged: Low to medium contribution & satisfaction</p>	Most Disengaged employees didn’t start out as bad apples. They still may not be. They are the most disconnected from organizational priorities, often feel underutilized and are clearly not getting what they need from work. They’re likely to be skeptical and can indulge in contagious negativity. If left alone, the Disengaged are likely to collect a paycheck while complaining or looking for their next job. If they can’t be coached or aligned to higher levels of engagement, their exit benefits everyone, including them.

Source: <http://blessingwhite.com/business-issues/employee-engagement/the-x-model-of-employee-engagement/>

6. Deloitte Model of Engagement:

As written by John Bersin, in his article - Becoming Irresistible: A new model for employee engagement, Deloitte Review Issue 16, “The employee-work contract has changed, compelling business leaders to build organizations that engage employees as sensitive, passionate, creative contributors.” Radical changes have taken place in the workplace. Employee are operating in transparent job markets, flattened organizations, and young employees creating the need for rapid job rotation, accelerated leadership and continuous feedback. Work environments have become highly complex thus, altering the engagement equation.

John Bersin conducted two years of research and discussions with hundreds of companies, and uncovered five major elements—and 20 underlying strategies—that can work together to help make organizations “irresistible.” These 20 factors fit together into a whole system of engagement in an organization, which is held together through culture.

 Meaningful work	 Hands-on management	 Positive work environment	 Growth opportunity	 Trust in leadership
Autonomy	Clear, transparent goals	Flexible work environment	Training and support on the job	Mission and purpose
Select to fit	Coaching	Humanistic workplace	Facilitated talent mobility	Continuous investment in people
Small, empowered teams	Invest in management development	Culture of recognition	Self-directed, dynamic learning	Transparency and honesty
Time for slack	Modern performance management	Inclusive, diverse work environment	High-impact learning culture	Inspiration
A focus on simplicity				

Graphic: Deloitte University Press | DUPress.com

Figure 7: The simply irresistible organization

Source: <https://dupress.deloitte.com/dup-us-en/deloitte-review/issue-16/employee-engagement-strategies.html>

1. Make Work Meaningful:

The first and perhaps most important element of employee engagement is right people for the right job or job-person fit. Organizations need to make sure that jobs are meaningful, people have the tools and autonomy to succeed.

Research also shows that meaningful work takes place in small teams. Small teams feel empowered, they make decisions faster, and the people get to know each other and can lend a hand when one of the teammates needs help.

2. Foster Great Management: The second important element is “management”. The word management is used in this model—not leadership—to refer to the daily, weekly, and monthly activity managers use to guide, support, and align their people. Specifically, high-performing managers typically create simple goals that create alignment, clarity and job satisfaction. These goals need to be revisited regularly.

In addition, a coaching culture, which happens to be the second factor, is also found to be a practice that is highly correlated with business performance, employee engagement, and overall retention. Organizations with high levels of employee engagement invest heavily in management development and ensure that new leaders are given ample support, which is the third factor. The fourth factor is performance management. Companies must take this process worth investing and simplify the annual performance review.

3. Establish a Flexible, Humane, Inclusive Workforce: The third element of an irresistible organization is the need to build a flexible, humane, and inclusive workplace

With the changing nature of work today, if employees have to engage with their organizations, they should be given a *flexible and supportive work environment*. In addition to perks, benefits and employee wellness programs, research also shows that open, flexible workspaces can have a major impact on engagement.

Third factor under this element is the need for *continuous and ongoing recognition*. researchers have found that poor recognition cultures show high voluntary turnover. Thus it can be stated that, the key to effectiveness, is to create a social environment where recognition flows from peer to peer and employees feel valued.

Fourth factor states that, highly engaged workplaces are typically *inclusive and diverse*. And this inclusion usually comes from the top. Leaders occupying top positions should attempt to overcome their unconscious biases and make every

effort to listen to their subordinates. They should create an open forum for discussion, and promote people of varied backgrounds (age, race, gender, nationality) who embrace listening and inclusive values.

4. Create ample opportunities for growth.

Most research on engagement has shown that learning opportunities, professional development and progression in career are among the top drivers of employee satisfaction. Though building opportunities for growth is a complex and systemic challenge, organizations must design formal and informal developmental opportunities, that allow people learn on the job, and take up developmental assignments.

Organizations should also support and honor facilitated talent mobility which happens to be the second factor. It means organizations must support internal mobility, giving employees the freedom to try something new and move from a role where they are highly productive to one where they may be a trainee again.

Finally, organizations should foster a learning culture and make sure that learning, development and mobility should be rewarded. Leaders can be helpful in creation of such cultures and they should also be rewarded for developing people, moving them into the most effective roles, and keeping retention high. Giving employee lots of opportunities to grow and advance impacts their intention to stay and perform.

5. Establish vision, purpose, and transparency in leadership.

Leadership is the final and perhaps the most important element of this model.

Four leadership practices have been found to have direct impact on employee engagement. The first practice is to develop and communicate a *strong sense of purpose*. The “mission-driven” companies surveyed for this research have shown 30 % higher levels of innovation and 40 % higher levels of retention. Also these companies tend to be first or second in their market segment.

The second important factor is *transparency*. In fact, new research shows that among Millennials, transparency among leadership rates among the most important drivers of company loyalty. Third, leaders should continually *invest in people*. Their research on “high-impact organizations,” conducted in 2005, 2008, and 2011, found that investing in people matters in good times and in bad. Finally, this research shows that leaders should continually focus on inspiration. Through their words, communications, and actions, it is often the top executives who ultimately engage everyone in the organization.

III. CONCLUSION:

From the examination of various models explained above, several propositions/practical implications have also come to light that firmly state the significance of engagement as a corporate practice. These models also emphasize different considerations or drivers of engagement that would keep the employees engaged, motivated and inspired resulting in reduced turnover and positive outcomes for the business.

The HR managers and the organizational leadership together must develop a complete understanding and approach of how various factors like company practices, work environment, reward system, learning opportunities etc., are all interrelated. Practically every management policy and practice impacts employee engagement. So, when organizations are focusing on innovation, growth, and performance they must simultaneously retrospect the impact of each strategy on individual employee. There is another core component that managers and organizations need to grasp and take seriously that their employees need to feel that their organization is genuinely interested in them.

To conclude, we can say that 'Engagement' basically describes the conditions under which people work. It reflects the positive physical, emotional and intellectual connection of an employee with his/her work. It is normative, affective and continuance commitment of an employee that inspires one to go beyond the call of duty to meet organizational requirements or objectives.

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**A REVIEW OF PATIENT DECISION MAKING SEEKING AYURVEDA FOR
INFERTILITY TREATMENT**

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ABSTRACT

Infertility among married couples is on rise and the need for infertility treatment is increasing. There are various infertility treatments available that can be categorised based on the medical systems into Allopathic treatments and non-Allopathic treatments including Ayurveda, Homeopathy etc. All these types of infertility treatments offer remedies based on the nature of diagnosed infertility and cause of the problem. But not necessarily all treatments benefit the patients in achieving successful pregnancy and live birth and the patients may seek alternative treatments for better results. Ayurveda is one of the oldest non-allopathic medical systems practised in India. However, there is still a dilemma in the minds of Indian patients regarding the use of Ayurvedic treatments and their role in treating infertility.

This study is aimed at understanding the different treatments available for infertility and the awareness about the treatments among the respondents in Pune. This paper will also give insights about the proportion of respondents that seek Ayurveda as their first line of infertility treatment and the key decision makers and influencers that influence this decision. Moreover, this study will provide details regarding the importance of factors that are considered while opting Ayurveda for infertility treatment.

Introduction

Infertility is medically defined as the incapability to conceive after one year of regular sexual intercourse without contraceptive measures undertaken or after six months if the woman is over age 35. The definition further includes women who cannot carry a pregnancy to live birth. There are two general types of infertility described in World Health Organization (WHO) such as primary and secondary infertility. When a woman is unable to ever bear a child, either due to the inability to become pregnant or the inability to carry a pregnancy to a live birth she would be classified as having primary infertility. Thus, women whose pregnancy spontaneously miscarries, or whose

pregnancy results in a still born child, without ever having had a live birth would present with primarily infertility. When a woman is unable to bear a child, either due to the inability to become pregnant or the inability to carry a pregnancy to a live birth following either a previous pregnancy or a previous ability to carry a pregnancy to a live birth, she would be classified as having secondary infertility. Thus those who repeatedly spontaneously miscarry or whose pregnancy results in a stillbirth, or following a previous pregnancy or a previous ability to do so, are then not unable to carry a pregnancy to a live birth would present with secondarily infertile.

International Business Times (IBT) article has quoted that it is believed that 10% of the general population suffers from some form of infertility in India. Considering the current Indian population of 1.35 billion, the number of Indians suffering from infertility can be estimated to be 0.14 billion which is huge. According to the researches published by Verdurmen et al., (1995) and van Balen et al., (1997), seeking medical advice option is the most commonly chosen alternative among infertile couples over other alternatives such as adoption, fostering etc.

Allopathic infertility treatment options are offered to couples depending on the cause of the problem and the nature of diagnosed infertility. A significant majority of female patients are successfully treated with the administration of drugs such as Clomiphene Citrate, Bromocriptine or Gonadotrophins. If damage to the reproductive organs is diagnosed, surgery is recommended by physicians to resolve the problems, such as those caused by endometriosis and infectious diseases. The treatment options available for male infertility include the administration of drugs, surgery and assisted reproductive technologies (ART), such as Intracytoplasmic Sperm Injection (ICSI) in which a single sperm is injected into the ovum using minute needle to create pregnancy. Assisted reproductive technologies (ART) are a part of several different methods designed to overcome barriers that hinder natural fertilization. Some examples of such barriers include anatomical problems such as blocked fallopian tubes. One of the most common techniques is in-vitro fertilization (IVF) now been practiced for more than 15 years.

Non-allopathic Indian medicines, referred to elsewhere in the world as complementary and alternative medicine have gathered increasing recognition in recent years with regard to both treatment options and health hazards. Ayurveda, Siddha, Unani and homeopathy are practiced in India as non-allopathic systems. These systems comprise a wide range of therapeutic approaches that include diet, herbs, metals, minerals,

precious stones and their combinations as well as nondrug therapies. Ayurveda is the oldest system of medicine in the world and by far the most commonly practiced form of non-allopathic medicine in India, particularly in rural India, where 70% of the population lives. With enormous pressures being exerted by the dominant establishment including the pharmaceuticals industry, alternative medical systems have been confined to marketing alternative products. Ayurveda is most commonly practiced form of complementary and alternative medicine (CAM) in India. About 80% of Indian patients use Ayurvedic therapy. It aims to integrate and balance the body, mind, and spirit to help prevent diseases and promote wellness. Recently Ayurvedic therapy is becoming more and more noticeable from the point of view of dissatisfaction with modern medicine.

Objectives of the study-

1. To study the awareness regarding various infertility treatment options among patients
2. To understand the various consumer roles in the context of treatment selection for infertility
3. To study factors affecting the patient decision making

Findings

1. Awareness regarding infertility treatments-

Majority of patients (80%) mentioned awareness regarding infertility treatment using Allopathy drugs and medications. However, 70% of the respondents were aware about the Ayurvedic and Panchakarma treatments used to treat infertility.

Only 20% respondents mentioned that they knew about surgeries performed to treat infertility. For example, surgeries to open Fallopian tubes, endometriosis performed to remove endometrium tissue lining that additionally forms around Fallopian tubes causing infertility and pelvic pain.

50% respondents are mainly aware of IVF (In-vitro Fertilization) treatment using Assisted Reproductive Technologies (ART). In vitro fertilization is a process of fertilization where an egg is combined with sperm outside the body, in vitro. The process involves monitoring and stimulating a woman's ovulatory process, removing an ovum or ova from the woman's ovaries and letting sperm fertilize them in a liquid in a laboratory. After the fertilized egg undergoes embryo culture for 2–6 days, it is

implanted in the same or another woman's uterus, with the intention of establishing a successful pregnancy. Other ART treatments include IUI (Intrauterine insemination), GIFT ((gamete intrafallopian transfer) and ZIFT (zygote intrafallopian transfer) that are modified versions of in vitro fertilization (IVF).

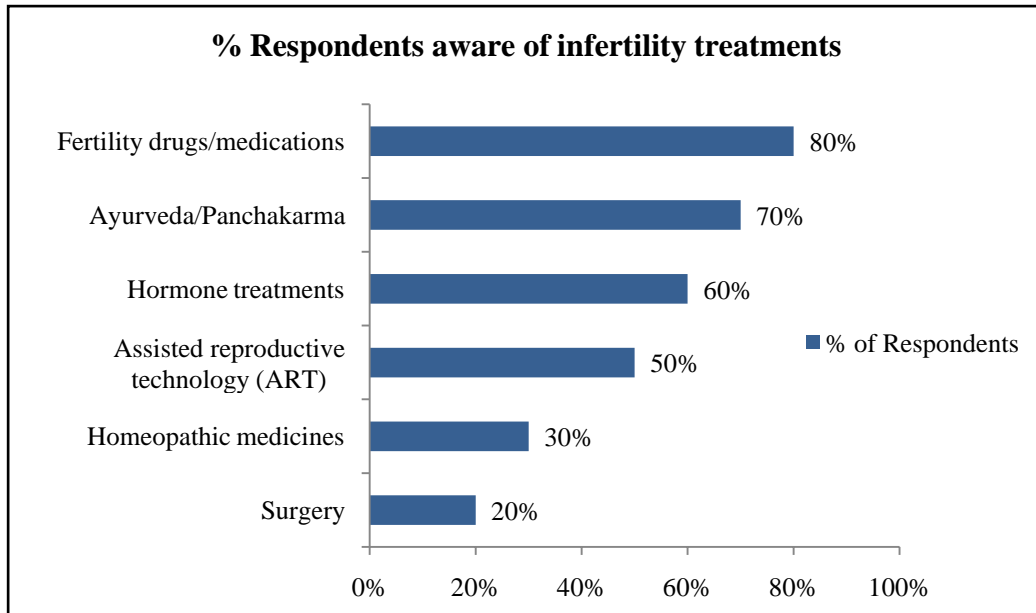


Figure 1: Awareness regarding various Infertility Treatments

2. Percentage of respondents who have opted Ayurveda as first line of treatment for infertility-

Only 20% of respondents mentioned that they had opted Ayurveda as first line of treatment for infertility. These were the respondents who had taken Ayurvedic treatments for other ailments previously. Based on their experience with the previous Ayurvedic treatment, they had opted to take Ayurvedic treatment for infertility.

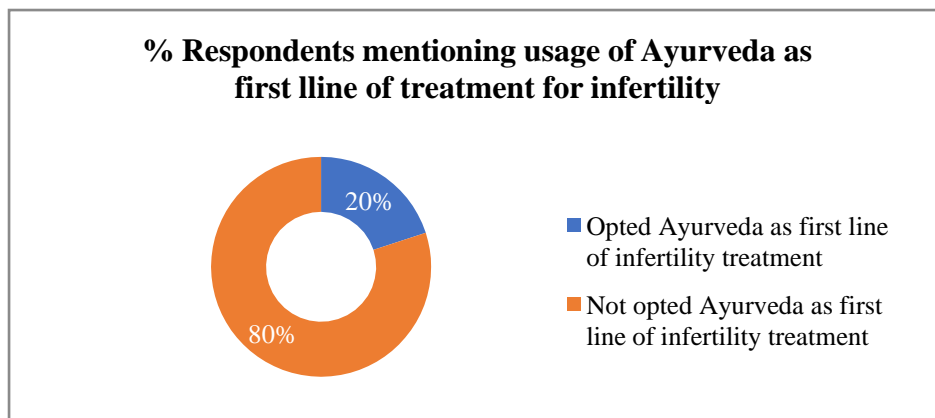


Figure 2: Respondents using Ayurveda as First Line of Treatment for Infertility

3. Decision making-

Based on the average of weightages assigned by the respondents, it is the patient who majorly makes a decision to opt for Ayurvedic treatment on his or her own self. ~35% of weightage was assigned by the respondents to their family members who decide for the patient whether to opt for Ayurveda to treat infertility.

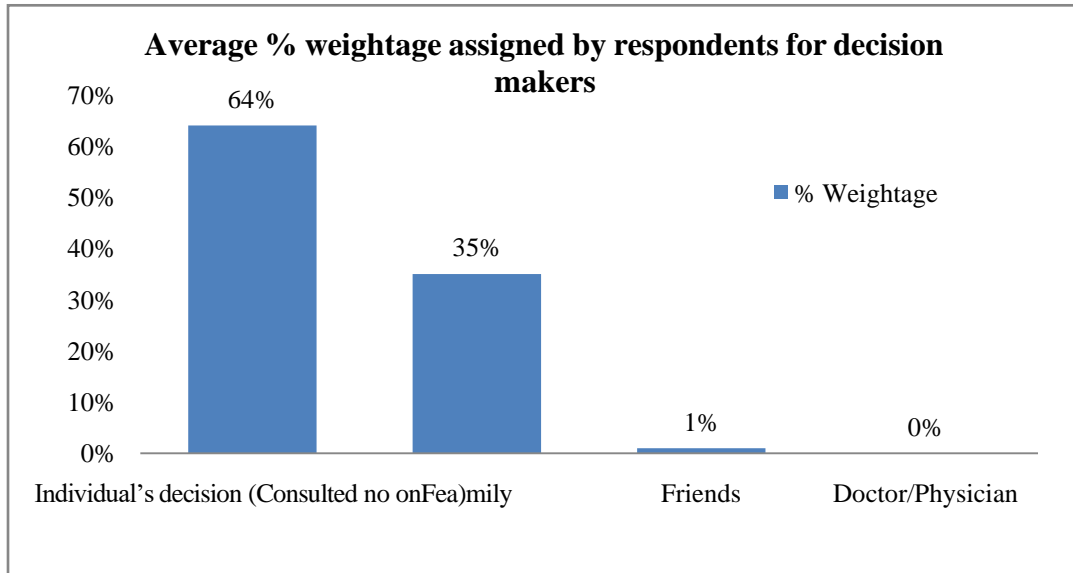


Figure 3: Key decision-makers for opting Ayurvedic Treatment

4. Decision Influencers-

Based on the average of weightage responses, ~44% of share was mentioned for family members for influencing patient decision of opting Ayurvedic treatments for infertility. The Consulting physician was also stated to influence the patient's decision. According to respondents, the physician consultation detailing about the ailment, its causes, the treatment suggested, the risks or side-effects of the treatment is valued by the patients and is considered while making treatment decision. Hence, ~38% of the decision-influencers share was assigned to Consulting physicians by the respondents.

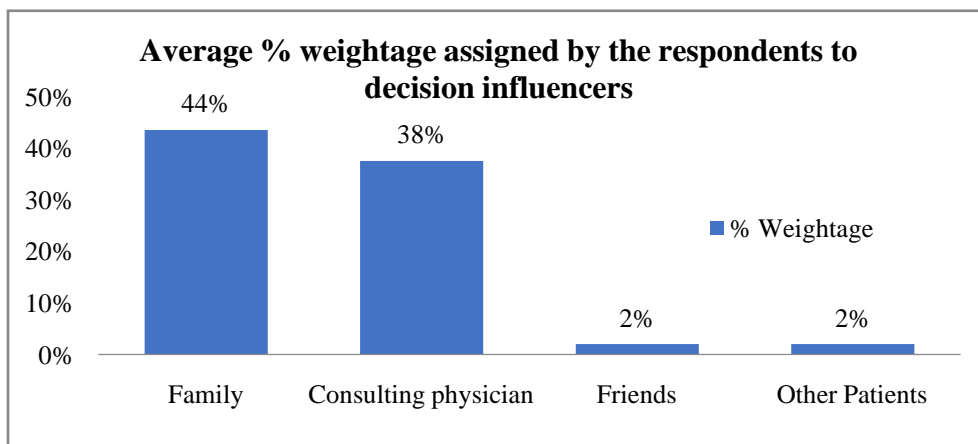


Figure 4: Decision Influencers for opting Ayurvedic Treatment

5. Importance ratings for factors considered for opting Ayurveda for treating infertility-

‘Recommendation from family and friends’ and ‘Patient reviews or experiences’ were the factors rated with top box ratings of importance (rating 5 and 4) by majority of respondents.

Based upon the importance ratings assigned by the respondents to the factors considered while opting for Ayurvedic treatments, recommendation from family members or friends was given more importance while making treatment decision. Side-effects of previous infertility treatments was second most important factor considered by infertility patients to opt for Ayurvedic treatments.

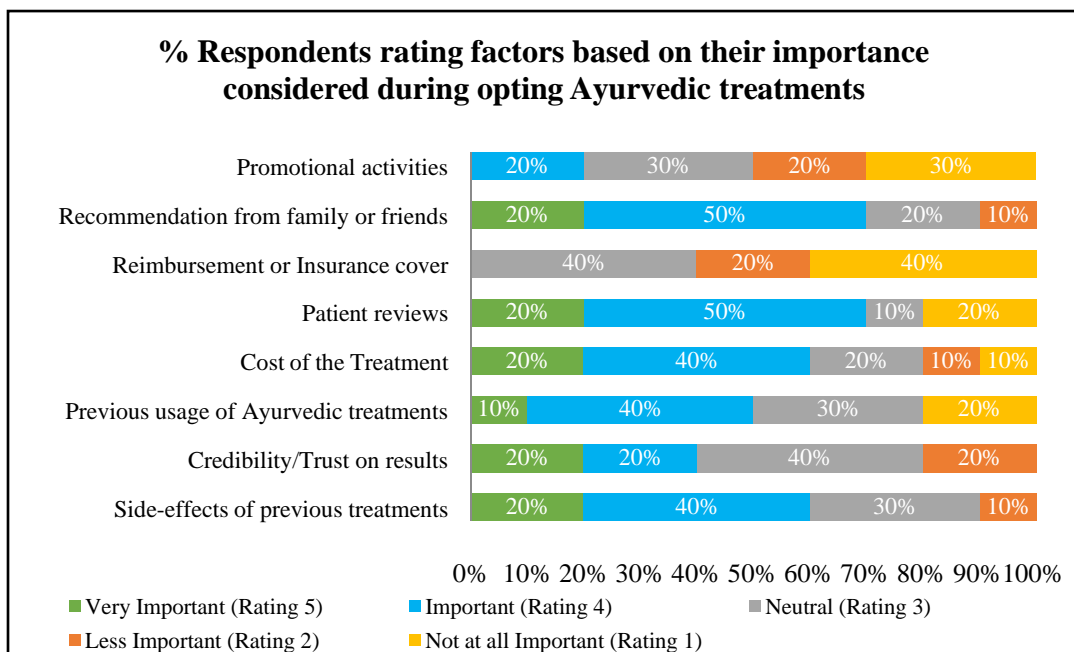


Figure 5: Factors considered during opting for Ayurvedic Treatment

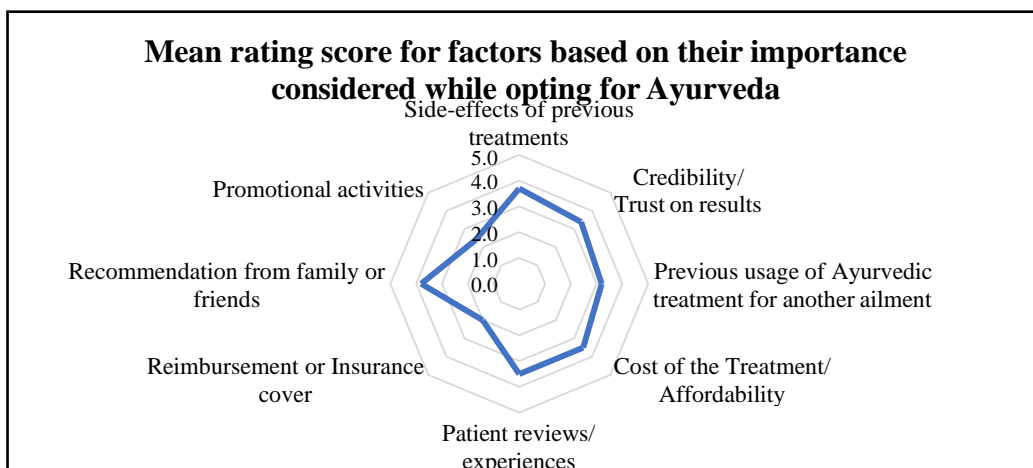


Figure 5: Mean importance score assigned to factors considered for opting Ayurvedic Treatment (Radar Chart)

Conclusion

~70% of the people are aware of Ayurvedic treatments such as Panchakarma for infertility in Pune. Majority of respondents are aware about Allopathic medications or prescription drugs used to treat infertility. However, only 20% of the respondents undertook Ayurveda as first line of treatment for infertility. In majority of infertility patient cases, the patient is a key-decision maker about what treatment option has to be opted. Moreover, the family members of the patient and the physician consulting the patient are the major treatment decision influencers for the infertility patients. The recommendations regarding Ayurvedic treatments from the family members and friends who have been taking Ayurvedic treatments is one of the most important factors considered by the patients while opting Ayurveda for the infertility treatment. The side-effects of the previously opted treatments is second most important factor considered by the patients to switch to Ayurvedic infertility treatments.

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THE ROLE OF SOCIAL MEDIA ON PERSONALITY DEVELOPMENT IN ADOLESCENCE

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ABSTRACT

The aim of the study is to examine the impact of social media on personality development of adolescents and to identify social media factors that influence personality development. A qualitative approach has been adopted in order fully explore the subject matter without any constraints. Data was collected using only peer reviewed Journal Articles and articles from book sections. The grounded theory method was used to reach the conclusion. The findings show that use of social media is extreme in adolescents as they use not only for socializing, but also for communication, entertainment, and all the other activities. The four main social media factors that influence personality development include (i) Culture of Popularity, (ii) Unreal Standards of Appearance, (iii) Approval Seeking Behaviour, and (iv) Prevalence of Depression and Anxiety. The research has two main limitations. The first limitation is that the study does not make use of primary data in forms of interviews or observation but it was made sure that only primary sources are used. Secondly, the use of qualitative approach which increases researcher bias. The findings of this study can be used to minimize the negative effects of social media on the personality development of adolescents through educational and intervention plans. The findings show that social media has an adverse effect on the personality development of adolescents. The study specifically identifies the four personality factors that are altered by the excessive use of social media. These findings can be used to develop interventions to minimize this negative impact on adolescents.

Keywords: *Adolescence, Culture of popularity, Emotions, Fake appearance and Anxiety.*

INTRODUCTION:-

Internet and other forms of media are now deeply integrated in our daily lives and adolescents are deeply connected with this new media as they were born in a time when technology is at its peak and available for all to use. A study was conducted in the

developed countries and it was found that adolescents spent most of their time using new media as compared to any other activity, second only to sleeping. New media is an important part of the daily lives of adolescents and they constantly connect their offline lives with online presence and make use of multiple sources (smartphones, laptops, ipad, etc.) to stay in touch with their social networks, especially facebook and twitter. Constant communication is the main motivation behind obsession with new media. Adolescents are constantly using new media for homework, socialization, and entertainment. Thus, it can be said that they are under heavy influence of social media.

1.1 ADOLESCENTS: SOCIAL AND PERSONALITY DEVELOPMENT :-

An important development factor during adolescents is that children become more self-conscious and become increasingly concerned about who they are. They are old enough to understand the concept of society and placing themselves in the society while maintaining their individuality at the same time. They also go through significant bodily changes which lead to the development of self-concept. Thus, self-esteem is an important concern in people of this age because they not see themselves fit for the society or may find incongruence in their real self and ideal self.

According to Erik Erikson's Stages of Development, during adolescence, teens may face much psychological discomfort as they go through "identity crisis". He proposes that during this stage, teens' battle between identity and identity confusion as they struggle to identify personality characteristics that are unique to them. Failing to develop a suitable identity can cause much distress and also have a negative impact on their social functioning in later years. The main characteristics of Adolescent years include:

1.1.1 IDENTITY SHOW OFF:

The individuals successfully develop their identity and show personality features like high motivation, self-esteem, and achievement. Teenagers are under the influence of social media, they get influenced by the post and people online and they try to copy them and show off.

1.1.2 FORECLOSURE:

These types of individuals are usually conformists and authoritarian. They are commanding and demanding.

1.1.3 DIFFUSION:

Individuals falling in this category have low self-esteem. Their identity is weak and diffused. They are also easily pushed in to doing things as they don't feel strongly about anything. They are under confident people and very introvert.

RESEARCH METHOD:-

Qualitative research is “any kind of research that produces findings not arrive at by means of statistical procedure or other means of quantification”. It is one of the oldest methods of conducting a scientific research and its main focus on explaining a given social phenomenon in detail.

According to Patton and Cochran , “qualitative research is characterized by its aims, which relate to understanding some aspects of social life, and its methods which (in general) generate words, rather than numbers, as data”. In simple words, qualitative research is used when the data is such that it cannot be interpreted numerically and requires descriptive understanding and explanation of a given concept. The method is often used when human variables like behaviours, beliefs, opinions, emotions, etc. are measured which cannot be quantitatively analysed.

Grounded theory (GT) is a systematic methodology in the social sciences involving the construction of theory through the analysis of data. Grounded theory is a research methodology which operates almost in a reverse fashion from social science research in the positivist tradition. Unlike positivist research, a study using grounded theory is likely to begin with a question, or even just with the collection of qualitative data. As researchers review the data collected, repeated ideas, concepts or elements become apparent, and are tagged with codes, which have been extracted from the data. As more data are collected, and as data are re-reviewed, codes can be grouped into concepts, and then into categories. These categories may become the basis for new theory. Thus, grounded theory is quite different from the traditional model of research, where the researcher chooses an existing theoretical framework, and only then collects data to show how the theory does or does not apply to the phenomenon under study.

2.1 INTERVIEWS:

It is one of the most common methods of data collection in qualitative research as it allows the researcher to get first-hand information about the topic. It is the conversation where random questions are asked and answers are obtained .Interviews may be semi-

structured or in-depth and may be conducted face-to-face, online, or through telephone. Secondary data can be obtained from interviews printed in newspapers, magazines or even on youtube or TV.

2.2 FOCUS GROUPS AND GROUP DISCUSSION:-

If the study is being conducted on a given focus group, a number of participants can be interviewed in groups through group discussions . A focus group is a form of qualitative research in which a group of people are asked about their opinions, perceptions believes and attitudes towards a product, service, idea or advertisement. These sessions are interactive and participants are allowed to oppose or support a given topic and present their personal views. However, it must be made sure that participants that are shy also participate in the discussion so that no one is left out.

2.3 OBSERVATION:

This method is used when data is collected when behaviour in natural environment is required. For instance, when interviewed, people may say something that they wouldn't do in real life just to seek social approval or because they don't want to seem "socially irresponsible". However, when observed in natural life, the behaviour is completely authentic. The data may be collected using a video recorder or placing the researcher in the natural environment and taking notes of events as they unfold.

DATA ANALYSIS:-

Data analysis is the process of classifying raw data in a way that is makes sense and answers the research question. In qualitative research, an important part of data analysis is to interpret the information collected from different sources and giving it meaning. For the present research, data was collected using peer-reviewed journal articles and articles from books. The grounded theory approach is used since the theory is developed from the data collected making it an inductive approach. Moreover, the subject matter is such that is requires subjective interpretation of the data collected.

FINDINGS:-

The aim of the research was to examine the impact of social media on personality development of adolescents. Adolescence is the age of rapid growth both in terms of physicality and intellectuality. Both girls and boys develop physical features that give

them a sense of identity Moreover, at an intellectual level, teens begin to wonder who they really are and where do they belong. The third type of development, which takes place in this age, is the building of social relationships. Because adolescence is such a delicate stage, individuals are easily influenced by others and may go out of their way to impress others.

SOCIAL MEDIA FACTORS AFFECTING ADOLESCENT PERSONALITY DEVELOPMENT

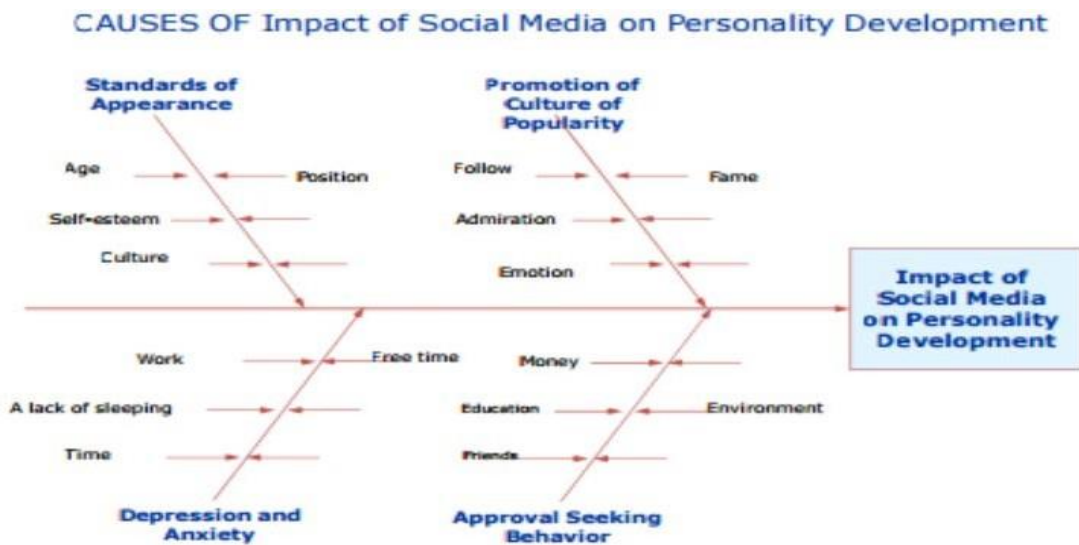


Fig:- Social media factors affecting adolescent personality development and its relation to four independent variables

THE FACTORS WHICH HAVE AN IMPACT OF SOCIAL MEDIA ON PERSONALITY DEVELOPMENT

Today's busy generation has no time to reflect on its own self. They get carried away by whatever they see on the internet. They don't give it a thought about the quality of the change or the impact the change will have on them. They just want to follow the trends at any cost. Due to this they are losing their own charm and they are acquiring an unreal self, that is intolerant, very sensitive, arrogant and this is also leading to the cultural downfall.

There are certain main factors that impact on the adolescent behaviour.

FACTOR1: PROMOTING OF SEEKING BEHAVIOUR:-

It must be noted that the main reason behind social networking sites is usually to extend the actual self out to the world and reach out to the society and not to promote

anonymity. Another factor hidden behind this vast use and obsession with social networking is to seek approval of others and gain popularity. Many users of social media are obsessed with constant updating and sharing in order to gain more likes and popularity among friends. Not getting the expected “friends” can result in low self-esteem.

FACTOR2: INCREASING DEPRESSING AND ANXIETY:-

It has been found that increasing use of social media also leads to depression, anxiety, and stress in adolescents . A number of studies have found a correlation between heavy use of FACEBOOK, TWITTER, INSTAGRAM and emotional distress. The facebook and the other such sites help the teenager to hid his or her identity and fool their own self by posting photoshoped pictures and fake visited places. They can write anything without showing their original self. Once the original self is discovered then there is lot of disappointment which leads to sadness and remose. Which results in depression and anxiety.

FACTOR3: UNREAL STANDARDS FOR APPEARANCE:-

The concept of social media popularity is well understood by anyone who uses social networking sites and thus, to gain popularity, people may go out of their way to impress others. Adolescents are increasingly becoming materialists and fake on their social networking site. For instance, they want to develop an image on line the image may be beautiful, thoughtful, rich, etc which can attract the puplic and like to the profile of the owner. The adolescence try to find the best profile picture, write the cool quotes which describes a fake personality .

FACTOR4: CULTURE OF POPULARITY:-

Social networking sites have been a popular Internet trend for the past many years. People are constantly in touch with their friends through social media and it is the dominant form of communication. One major part of social networking sites is of profiles. Individuals spend much time creating profiles that are “cool” to maintain a certain social standard. The teen are ready to post any kinds of pictures to gain popularity. Their day ends with the amount of likes and comments. It’s the most important thing in their life. There are teens who have committed suicides on the same reasons.

RESEARCH LIMITATIONS:-

The main limitation of the research is that it only makes use of secondary data and archival research to reach conclusions. It is thus suggested that use of primary data is

made in any future research conducted on the subject matter. However, efforts were made to keep the research subjective by making use of primary researches only and deriving conclusions from the data collected without any extended explanation. Other aspects could not be studied in details.

PRACTICAL IMPLICATIONS:-

The four factors identified in the research that influence personality development in adolescents have many practical implications. Since the research proves that using social network sites is having a negative impact on the personality development of the adolescents, efforts should be made to minimize these consequences. Each factor mentioned can be further studied in detail to understand how the negative impact of social media can be reduced. For instance, efforts can be made to educate parents and school authorities about how social networking is leading to the culture of “popularity” based on materialism and giving way to unreal standards of appearance. Parents and teachers can then begin moral education of children from an early age to help them realize that appearance is not everything as there other aspects of personality, intelligence, and good nature of a person, which should be used, judge a person. Similarly, adolescents should be encouraged to spend more time outdoors in recreational activities to promote a healthy development. The feelings of loneliness arise in adolescents who spend several hours on social networking sites waiting for someone to communicate with them and brooding over the active lives of others. Efforts can be made on a national level to reduce the prevalence of depression and anxiety among youngsters. Furthermore, efforts can be made to identify a healthy way of using new media and introducing educational programs regarding responsible use of new media.

CONCLUSION:-

Based on the review of the literature presented above and the findings, it can be concluded that social media is having a significant impact on the personality development of adolescents. The new media is creating a great gap between the real self of the adolescent and the created imaginary self by them. They are getting influenced by all the attractive things and moulding their personalities accordingly. They are getting under the influence of depression and anxiety because the only person they talk to is the internet. They should go outdoor and interact with real people and get information from the horses mouth. They should be with family, take their suggestions for improvement nad problem solving rather than getting carried away by the social

media. They should create their strong personalities rather than copying the figures on social media.

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**STRATEGIC INTELLIGENCE AND ITS IMPORTANCE IN
MANAGEMENT OF ORGANISATION**

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ABSTRACT

Strategic intelligence is considered as a magnificent source of competitive advantage because it can enhance decision making process as it has information as its foundation. The important component towards making the strategic intelligence process successful is a management team that not only focuses on the process but also on its people and technology. The value of strategic intelligence is reflected in the ability of the organisation management maintaining reputation even in the situation of challenges that requires critical decisions. Strategic intelligence is a characteristic feature of intelligence, in almost every application, that it serves two distinct ends: One emphasis is for management, and the other is focused at the operational and functional level. Intelligence that is made purely for management and executive use which deals with the overview questions of mission, goals, objectives, programs, and resource planning is termed as strategic intelligence, for it helps in the development of organizational strategies. On the other hand, intelligence that services the daily needs of supervisors and line managers and emphasizes on immediate, routine, and on-going activities of the organization of the frontline functions tends to be termed operational intelligence. Operational intelligence is concerned with the identification, targeting, detection, and intervention (or prohibition) actions taken against illegal operations of any sort. Strategic Intelligence should be deep-rooted within organisation culture. The main objective of this paper was to identify the elements of strategic intelligence process and the various approaches to strategic intelligence management can apply towards the success of strategic intelligence process in long runs.

Key Words: *Strategic intelligence, customer intelligence, knowledge management, synergy, information technology.*

Introduction:

The concept of intelligence was first introduced by an American Professor, Vilensky in

in order to determine the right organization. Strategic intelligence is an evolving field of business consulting, which aims to undertake the task of revealing large, complex or complicated issues of transformation in a more comprehensible form.

Organisations with high strategic intelligence have clear strategy and are continuously trying to improve and always looking for alternative ways to be more competent and real. Being creative, and adaptive, are organizations whose strategic intelligence is spread throughout the organization creating flexibility, adaptive behaviour and continuous change (Blanding, M. 2012).

Strategic intelligence is considered as a magnificent source of competitive advantage because it can enhance decision making process as it has information as its foundation by providing useful information for organizations about their business environment, competitors, customers, and markets that are required to anticipate changes and design suitable strategies. Thus the organizations will have a strong understanding of the significances of strategic planning, and appropriately budget resources for new initiatives, on-going commitment to win the latest updates in product and technology, to advance current products in a new market, or to introduce new products to existing customers, have a position to shape the industry, by combining innovation and careful planning of the organization's future, and invokes the organization's ability to reflect on the past, understand current competitive actions, and predict future trends in the industry that will lead to organizational longevity.

The main objective of this paper was to study the importance of strategic intelligence in the organisation by identifying the elements of strategic intelligence process and the various approaches to strategic intelligence management can apply towards the success of strategic intelligence process in long runs.

Review of Literature:

Pirttimaki (2007), defines strategic intelligence as a realistic understanding of circumstances and using it to develop appropriate strategies and adapting the workplace to different situations.

Richard (2007), views strategic intelligence as a concept which is widely related to the organisation intelligence, organisational strategies, strategic resources of organisation, and strategic management.

Fleisher and Bensoussan (2007), states strategic intelligence is the gathering, analysis, and dissemination of data relevant to strategic decision making.

Liebowitz (2006), perceive that strategic intelligence is a term used for intelligence activities in the context of strategic planning and strategic management that addresses the needs of high-level decision-makers mainly focusing on practical activities.

Esmaeili (2014), concluded that strategic intelligence has a positive and meaningful effect on the strategic decision making and strategic planning in the organizations using the intelligent systems. In addition, the effective factors on the strategic intelligence were known were human resource intelligence, organizational process, technological, informational, financial resources, competitor, and customer intelligence.

Abdullah (2012), states that the significance of strategic intelligence is strategic leadership. Strategic leadership is a process of influencing the favourable prospects for success used by leaders; however, its impact on organizational culture, resources allocation, guidance through policy and consensus on the vague and unreliable complex global environment.

Acros (2015), Strategic intelligence is essential to change conditions and to address challenges from the environment and also for adaptation of the organization's plans to a dynamic and evolving context.

Agha et al. (2014), concluded that there is a significant positive impact of strategic intelligence on organisation performance in the presence of strategic flexibility as a mediator variable.

Methodology:

This paper is based on a conceptual study on the review of literature from various sources such as research papers, articles, textbooks, and magazines, etc. on strategic intelligence and its importance in management of organisation. Different researchers have realised the fact that through strategic intelligence organizations can gain useful information about their business environment that are essential to anticipate changes and design appropriate strategies that will create value and build the future growth of profitability in the new markets within or in other industries.

Value of Strategic Intelligence

Strategic intelligence is a process of collection, processing, analysis and dissemination of intelligence that is crucial in policy making (Kuosa, 2011). Intelligence may be viewed in perspective of what an organisation want to know about its operation environment so that it can gain insight into its current process, anticipate and manage

future changes. This is achieved through designing appropriate strategies that are aligned with organisation vision and mission. Strategic intelligence is a combination of different types of intelligence such as commercial intelligence and competitive intelligence that create synergy in an organisation's intelligence and knowledge management to facilitate acquisition of valuable information in organisational decision making process. Further Strategic intelligence is important in organisations desire to deal with potential future challenges and opportunities to achieve success.

The value and the role played by Strategic intelligence in realisation of an organisation's success is indispensable. The value of strategic intelligence can be enhanced through the improvement of the skills of managers and employees which in turn affects their competencies to learn about the potential changes in their business environment, by giving them the ability to communicate freely to share their perceptions, new information and insights whenever and wherever the organisation requires such information, which will increase the 'intelligence quotient' of all organisational managers and employees (Tham & Kim 2002). Strategic intelligence is seen through the prospective of having relevant information in the hands of right people at the right time to make right decision for the future success of the organisation. The value of strategic intelligence is reflected in the ability of the organisation management maintaining reputation even in the situation of challenges that requires critical decisions. This is possible where the leaders are capable of identifying potential threats and changes that have occurred and guided by intelligence information at hand making suggestions to unravel the underlined mystery. Strategic intelligence focuses less on past and present issues compared to the future issues as it tries to predict and anticipate future and model it so that it is in line with organisation operations. By collecting and analysing the past data an organisation is capable of understanding its key points of improvements and opportunities available to sustain in competitive market.

Elements of Strategic Intelligence Process:

The elements that make the strategic intelligence process effective are:

- **Sensing:** Involves identifying suitable external indicators of change.
- **Collecting:** Emphases on ways of gathering information that is applicable and possibly meaningful.
- **Organizing:** Helps structure the collected information in suitable arrangements and media.

- **Processing:** Involves analyzing the information with proper methods and tools.
- **Communicating:** Focuses on packaging and abridging access to information for users.
- **Using:** Focuses on applying information in decisions and actions.

The important component towards making the strategic intelligence process successful is a management team that not only focuses on the process but also on its people and technology. Therefore Managers must create a culture where a diversity of mind-set's are explored, tested, and selected so that the organisation is capable of rapid navigation in market conditions that are constantly ever-changing.

Approaches to Strategic Intelligence

Management can utilise one of the two most common approaches to Strategic Intelligence, either a functional approach or a process approach to develop insights and intelligence about future trends.

- **The Functional Approach**

Many organisations have various departments that helps determine how certain activities are directed in order to achieve the goals of an *organization* on a functional basis. Each functional department collects many pools of isolated external and internal data or intelligence, which is often used towards making departmental wise decisions. For example, the human resources department is responsible for creating, implementing and administering policies and programmes designed to make expeditious use of an organisation's human resources; the finance department ensures that there is financial stability within an organisation to carry out activities across all departments, the sales department collects information on customer contracts, transactions and services; marketing department works with production department by providing information about the products that customers want, while purchasing department has the job for monitoring how many products or stock is required at any one time and buying accordingly; information technology department monitor trends in the IT industry and technical developments; and as innovation is the key to every business future, the research and development department ensure responsibility for innovation in products, creating its new design and style as well as for searching new ways of launching products by updating to the latest technological and economic trends. Strategic Intelligence in a functional

organisation is often confined to isolated pools of data created by the departments who have applied their existing mind-sets concerning the organisations direction and strategies for success. Information is rarely widely shared and used by other levels of managers in the organisation resulting in the decision making process producing inferior results.

In a functional oriented organisation, there are few barriers to sharing and utilising strategic intelligence to shape the future. These are:

1. The isolated pools of data are heavily influenced by the functional view of the organisation rather than a broader, general-management opinion of the organisation.
2. The interpretation of data is often affected by hidden assumptions of people, blind spots or taboos, or biases of past successes or failures and exploitations of the future.
3. Managers have limited scope to access to organisational-wide data upon which they can effectively act upon with agility.
4. Any dissemination of knowledge on an organisation-wide basis should be accomplished with minimal inconsistency and un-ambiguity in interpretation.

- **The Process Approach**

The process approach, in contrast to the functional approach to Strategic Intelligence, is based on a very different framework. The framework for a process approach to Strategic Intelligence should include the following principles.

1. Not all of the organisational knowledge or decision-making responsibility lies with top management and therefore strategic Intelligence should be organised to address the needs of the business unit and other general managers.
2. There must be a sharing of Strategic Intelligence in the organisation through decentralised processing which encourages a diversity of employee input, ideas and perspectives about the future. Though, this is critical as changes in industries, technologies, markets and customers take place rapidly resulting in no single group of senior executives being able to meet with the diverse signals from the business environment, nor appropriately factor them into new mind-sets about future business strategies and opportunities.
3. Technologies should be deployed for constantly managing and sharing internal and external intelligence accessible to managers acting on common problems and issues anywhere, any time.

4. The current challenge is not to confine Strategic Intelligence to the top of an organisation but to distribute the information across all levels, both globally and laterally to be aligned with decision-making responsibilities.

In this context, Strategic Intelligence should be deep-rooted within organisation culture, rather than being grafted on as another function. It is clear that the process approach to Strategic Intelligence would inculcate a culture of team spirit, sharing and contribution of information, including its re-use, and the continuous empowering of employees at all levels in the organisation.

Initiatives by the management towards a Successful Strategic Intelligence Process:

It is believed that process approach is the most effective way to organize strategic intelligence. But in some cases, such as acquisitions, an organisation might be required to keep the information confidential and only share it with few executives. However, in most situations, a more disseminated approach is desirable where the organisation develops processes that allow for information sharing across business units and geographies. It is clear that with each approach there are risks associated, but the benefits gained from the process approach compared the functional approach are far superior. Building a strong process approach requires developing mature information capabilities which is not an easy task to complete. Managers must be determined and focused on improving information capabilities and remain committed to the process approach over time.

In order to focus on improving the maturity of organisation's information capabilities, managers must keep in mind the important key points while designing a successful strategic intelligence process.

1. Managers must treat the information and knowledge flows of the organisation as "visible assets." This can be done by developing organizational guidelines and a common language that will help people through the process of collecting, maintaining, sharing, and using information. Managers should also ensure that employees understand the business and know what information is critical to business performance.
2. As the technology and communication networks continue to advance in the area of information usage, the how and why employees use information become even more significant, and therefore managers must help the people to understand how to use

technology effectively and create processes that people can easily function smoothly.

3. Management also needs to understand what influences others' attitudes about information usage. In order to change employee behaviours and values, managers need to "walk the talk" and examine their own behaviours before they expect others to change. Managers must develop formal monitoring and incentive schemes to reward those employees that are engage in effective information usage (Marchand, 1997).
4. Managers should strive towards systematically usage of information as a competitive weapon to create business asymmetry. Asymmetry takes place when an enterprise has capabilities that their customer's value and their competitors cannot match. Asymmetries can result from structural advantages such as scale, privileged relationships and extraordinary abilities in execution, and also from unusual foresight into trends, markets, customers. Hunter and Aron (2004) suggested that being able to gather and execute strategic intelligence better than the competition can be considered a source of business asymmetry that results in a competitive advantage.

Conclusion:

It can be concluded that strategic intelligence has a significant role in all areas of management and foundation of organisation's future plans. There is a strong relationship between strategic intelligence and managerial skills that help the manager and the organization in achieving and sustaining competitive advantage. Strategic intelligence helps the manager in the strategic decision making process by providing organizational decision makers with accurate intelligence on which to base their decisions thereby enhancing their competencies to meet the complex demands involving communication, planning, mobilizing, self-managing, strategic action in the complex global environment that organizations are currently facing.

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**"HR INTERVENTION FOR ACCIDENT PREVENTION :
A CASE STUDY"**

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ABSTRACT

Background:

The Maharashtra State Road Transport Corporation, MSRTC Latur Division has 512 passenger buses and 1099 bus drivers on role. Driver induced bus accidents rate in Maharashtra state is highest in India. It was found that 80% of all the road accidents are due to driver and its fault. As safe and healthy work is a human right, it is also necessary to prevent bus accidents.

Therefore, the present study was undertaken to explore 131 driver induced bus accidents happens in MSRTC Latur Division and develop HR intervention for their prevention.

Problem:

Even implementing 3E's i.e. Engineering, Enforcement and Education bus accidents show an upward trend, there felt a need to evolve human performance based safety tool for preventing error committing behavior of bus drivers. Which model suits in this context?

Methods:

Human performance is variable. Biorhythm model predicts human performance by means of understanding biological rhythms. HR professionals can play a proactive role using behavioral theories for accident prevention by utilizing biorhythm model.

Using MATLAB Software program biorhythm cycle positions for each driver at the day of accident has been calculated. Chi-Square goodness of fit test was used for hypothesis testing.

Result:

The results shows that out of 131 bus accidents taken for analysis 86 accidents occur on either biorhythmic critical days or on negative phase of drivers biorhythm.

Conclusion:

It was found that significant correlation exists between bus accident occurrence and driver's biorhythm.

Recommendations:

The proposed model can be used as an HR intervention to promote safety awareness amongst the bus driver. However, it cannot be used for predicting accidents. The model can be utilized as an information system by HR for preventing accidents by informing driver's their bio charts.

Key words: *Accident, biorhythm, intervention, prevention, MSRTC*

HR Intervention for Accident Prevention: A Case Study**Study Motivation and Background:**

Road accidents are the single largest contributor to accidental deaths in India. When the population grew by 19% the road accidental rate grew by 22.5% for the same period.

In case of Maharashtra State, according to road accident report 2017, Total of 12,264 people died in 35,853 road mishaps [3].

According to National Crime Record Bureau (NCRB), GoI percentage share of number of accidental deaths in Bus involved accidents was around 11.2%. Nearly, 29 people died daily in road accidents involving buses in 2017. Even implementing 3E's, namely Engineering, Enforcement and Education for preventing these accidents, road accidents show an upward trend.

It was found that in spite of multiple contributing factors for an accident to occur, 80% of all the road accidents are due to driver and its fault i.e. accidents caused by driver's error [1]. The error committing conditions for the driver's are physical (Tired, physical impairment), Emotional (Anger, Depressed) and Intellectual (Distraction i.e. unable to scan the horizon). Eliminating or minimizing these human errors by informing them in advance itself contribute to accident prevention.

The area of drivers safety and prevention of bus accidents is of great concern to Divisional Manager, MSRTC Latur, It is because of the increasing number of bus accidents which result in major fines and even criminal conviction for drivers and managers. Therefore, the present study was undertaken to explore human performance

based biorhythm model for driver induced bus accidents happens in ST division Latur. Where, sample of 131 driver induced bus accident record was collected from HR and correlated these accidents with biorhythm cycles for testing and validation of biorhythm model. Further, on the basis of results obtained from the study, solution for bus accident prevention for MSRTC Division Latur is to be proposed. The proposed solution may be implemented as HR intervention to safeguard driver induced bus accidents, so as to fill the knowledge gap in this dimension.

Introduction :

The performance review report of all State Transport Undertakings (STU) in India, shows that Maharashtra State Road Transport Corporation was on the top in the list with the highest number of accidents.

Top MSRTC officials admitted that their accident rate of 0.17 lakh per kilometer is quite high but said the authorities were consistently making efforts to reduce this. The MSRTC has prepared a list of 1,280 accident spots across the state and organized camps to keep driver's stress-free.

Similarly, for MSRTC Latur division, prevention of driver induced bus accidents is a priority. The Latur division has five bus depot viz Latur, Ausa, Udgir, Ahemedpur and Nilanga. Collectively Latur division has 512 bus fleets with 1099 bus driver's on roll. Latur division operated their buses for passenger transport connecting various town's, villages and cities within the state as well as interstate.

MSRTC Latur division has a mechanism for reporting and investigating bus accidents. Fact finding committee usually visits accident site, collects on the spot evidences and then record findings. If bus driver found to be faulty, then appropriate disciplinary action has been initiated against the concern bus driver.

To reduce bus driver's error's prevailing methods have relied on educational and awareness programs, this approach assumes a constant level of performance of all bus drivers. However, every human being is unique. So, driver's performance is variable and differs from one another. If emphasis can be placed on safety during low periods of driver's performance, this awareness itself may contribute to driver induced bus accident prevention.

The Biorhythm model predicts human performance by means of understanding biological rhythms. By utilizing this model driver induced bus accidents might potentially be prevented this was a core idea behind the present study design. Testing and validation of the model is carried out using past accident date.

According to Biorhythm model, at the moment of birth three biorhythm cycles were initiated. The physical cycle is related to human physical condition and having 33 days period, Emotional cycle is related to a person's emotional well being & his degree of sensitivity with 28 day's period and Intellectual cycle having 33 days period associated with human decision making capacity. In any of the three cycles, the positive period represents high performance interval, negative period represents low performance interval and crossing point represents 'accident prone day' or 'critical day' [2]. Mathematically, Biorhythm model represent by a sine wave and denoted as 'A'

$$A = \text{sssn} \left(\frac{2\pi}{T} (t + \phi) \right)$$

Where, $2\pi = 360^\circ$, T = period in days, t = time in cycle days, ϕ = phase displacement. The present study utilizes biorhythm model to test driver induced previous bus accident data. And correlate with the critical and low periods of driver's biorhythms. Further, on the basis of study finding's accident prevention program for bus driver has been proposed.

It is the intent of this study to explain how human performance based biorhythm model can be utilized by HR for accident prevention.

Problem:

Bus drivers from MSRTC Division Latur are trained and experienced. They were driven passenger buses. In spite of all safety precautions, driver induced ST bus accidents in Latur Division occurred frequently. It was essential to prevent driver induced bus accidents.

Objectives:

The aims of present study design was

- 1) To explore the driver induced ST bus accidents in Latur Division.
- 2) To correlate each driver induced accident with concern driver's biorhythms.
- 3) To find out correlation between accident occurrence and the biorhythms.
- 4) On the basis of findings, develop an HR intervention for bus accident prevention based on biorhythms.

Materials and Methods:

For the present study secondary data was used. The data for bus accidents which was recorded with Divisional Manger, State Transport Latur were collected. Divisional Manager, Latur has given record of 328 bus accidents which happens during the period

from 03.01.2012 to 18.09.2015. According, to fact finding report, out of 328 accident occurrences 131 was due to the fault of bus driver. Therefore, only those accidents were taken for the analysis of this study.

Thus, collected sample of 131 driver induced bus accident was recorded on separately designed and prepared record sheets. Which include, name of the driver, bus registration number, driver's badge number, location and place of the accident, date and the time of the accident. Date of births of the concerned drivers was taken from HR department. All this data was then organized and tabulated.

The collected data was then classified and put to analysis with the help of biorhythm software programs.

For each driver induced bus accident corresponding date of birth and date of accident was tabulated. Every accident case was then analyzed using biorhythm model.

Using MATLAB software program where, input given as date of birth of the driver and date of accident, three of the biorhythm cycle position physical, emotional, intellectual along with composite position in percentage has been obtained as an output. The format used for tabulation of data & analysis is shown in Table 1 as follows:

Table 1 : Data tabulation and analysis

Sr. No.	Driver's badge Number	Date of birth of the driver DD/MM/YY	Date of accident DD/MM/YY	Physical cycle position 'P' % at the day of accident	Emotional cycle position 'E' % at the day of accident	Intellectual cycle position 'I' % at the day of accident	Composite cycle position % at the day of accident	Remarks
1	1333	20.06.1961	03.01.2012	-40	100	76	45	
7	1827	26.04.1975	05.05.2012	0	0	-91	-1	

119	.	.	.	-14	0	-28	-14	
.	
.	2411	03.06.	24.05.	
131	1	1979	2015	100	-90	76	28	
.	.	.	.					
.	.	.	.					
	1395	15.05.	18.09.					
	2	1963	2015					

Then the hypothesis was formed that biorhythm is not involved as a causal factor in driver induced bus accidents. Chi-square goodness of fit test was used to test the hypothesis. Simulation - I presents the testing of hypothesis.

Simulation - I : Chi-Square Goodness of fit test for hypothesis testing

A analysis of 131 driver - involved bus accidents.

	Variables	Number of accidents
i)	Accidents occurred on physical critical,	P = 06
ii)	Accidents occurred on Emotional critical,	E = 06
iii)	Accidents occurred on Intellectual critical,	I = 02
iv)	Accidents occurred on Double critical,	P & E = 01
v)	Accidents occurred on -ve phase of the cycle,	= 71
vi)	Accidents occurred on critical days & -ve phase of the cycle	= 86

Analysis procedure :

1. Null Hypothesis H_0 : The accident occurring on driver biorhythm critical days and -ve phase could have occurred by chance.
2. Alternative Hypothesis H_1 : There exist a relationship between driver biorhythm and accident occurrence
3. Confidence limit : 95%
4. Calculation of Chi-Square :

Sr. No.	Variable	No.of accidents n_i	p_i %	Expected number of accidents based on 23, 28 & 33 days fixed cycle ($P_i \times n$)	$n_i - p_i n$	$\frac{(n_i - p_i n)^2}{p_i n}$
i)	P	06	0.07585	9.93	-3.93	1.5555
ii)	E	06	0.06126	8.02	-2.02	0.5087
iii)	I	02	0.05138	6.73	-4.73	3.3243
iv)	P & E	01	0.0058	0.75	0.25	0.0833
v)	-ve phase	71	0.3982	52	19	6.9423
vi)	Critical & -ve	86	0.6017	78.82	7.18	0.6540
		$n = 131$				$\lambda^2 = 13.068$

Total variables, 06 \therefore degrees of freedom = 6-1 = 5, from statistical table λ^2 factors for Testing Goodness of fit at 95% confidence limit and 5 degrees of freedom is 11.07.

Since, the calculated value $13.0687 > 11.07$, the null hypothesis H_0 will be rejected and alternative hypothesis H_1 shall be accepted.

Therefore, a significant correlation between driver biorhythms and accident occurrence was demonstrated from the data.

Results:

The results of the data analysis involved in this study imply that 86 bus accidents out of total sample of 131 occur on driver's critical and negative phase days.

The physical and emotional critical days of the driver found to be equal in numbers i.e. 06 where, accident occurs. Total of 15 accidents occurred on either of the critical days of the bus drivers on their biorhythm cycle positions.

After going through the accident reports provided by MSRTC Latur following are the major causes of driver induced bus accidents.

- i) Bus fails to yield.
- ii) Bus driver starts accelerating or driving too quickly and too hard before passengers can get to a seat.

- iii) Bus makes an unsafe lane change or crosses into the other lane
- iv) Bus sides wipe another vehicle.
- v) Bus crosses the center line

Discussion :

The results of the present study agree with the findings of Parikh R.H. et al (2010), [5] in which author's presents a critical review of biorhythm work in the area of application of biorhythm for accident prevention on the basis of exhaustive road accident data analysis.

Similar findings reported by MacKenzie [4], where he cited the success of a Japanese railway company where, number of driver induced accidents reduced by 50% using biorhythm charting.

Sharma R. and Singh R. (2011) [7], concluded in their paper suggesting that biorhythm theory acts as an information system for accident prevention, which is similar to our study recommendations.

In our study, physical & emotional biorhythms have more correlation with occurrence of accident compared to intellectual cycle. Similar, finding was recorded by Cobb, WI, J. in the study on human performance and biorhythms [8].

Conclusion :

The results of the evaluations and testing involved in this study imply that approximately 65.64% of the bus accidents occur on critical days and -ve phase of bus driver's biorhythm position.

Significant correlation established between occurrence of bus accidents and biorhythmic critical days with negative phases of bus drivers.

Recommendations :

The following recommendations resulted from this study:

1. It is recommended that, a safety-oriented program to continually brief bus drivers on their biorhythm through HR may, in fact, reduce bus accident rates.
2. Biorhythm as an HR intervention for bus driver may be used as a one of the tool to create a greater awareness of safety.
3. The proposed model is to be used to promote safety, awareness and not to predict accidents.

Limitations:

1. The sample size taken for the present study is comparatively small.

2. This study uses only secondary data.

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**COLLABORATION IN SME CLUSTERS, A PARTNERSHIP
APPROACH TO BUSINESS DEVELOPMENT: A CASE STUDY**

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ABSTRACT

The Ministry of Micro, Small and Medium Enterprises (MSME), Government of India (GoI) has adopted the Cluster Development approach as a key strategy for enhancing the productivity and competitiveness as well as capacity building of Micro and Small Enterprises (MSEs) and their collectives in the country. A cluster is a group of enterprises located within an identifiable and as far as practicable, contiguous area and producing same / similar products / services. The essential characteristics of enterprises in a cluster are (a) Similarity or complementarity in the methods of production, quality control and testing, energy consumption, pollution control, etc (b) Similar level of technology and marketing strategies / practices (c) Similar channels for communication among the members of the cluster (d) Common challenges and opportunities.

To validate hypotheses, I undertook a field study of the SME cluster in Bhosari, Pune, Maharashtra. In this paper, I have put forth our findings from the study, followed by importance of collaboration in MSME clusters.

Keywords: MSME, SME, Cluster, Collaboration

1. Introduction

The MSME sector is the second largest employment generator in India after agriculture. It generated employment for 73.2 million people in FY11; the figure is set to increase by another 12.0 million over FY12–14. While MSMEs are a key source of employment for low-skilled and semi-skilled workers, the sector has been working hard towards upgrading the skill base and attracting more talent. In line with this, the government and various private players are heavily investing in training centres. A good example for this is upgradation of nearly 1,390 Industrial Training Institutes (ITIs) across India through public private partnerships (PPPs).

MSMEs have been coordinating with private sector players in upgrading skills and delivering quality. Large industrial firms (such as those in automotive sector) often tend

to be the end-customer for MSMEs. To ensure product quality, these firms often coordinate with smaller suppliers to impart the requisite skills and ensure adherence to standardized processes. The government as well as NGOs has been actively involved in this endeavor. With improving skills, better coordination with bigger firms and greater technological access, MSMEs in India have moved into a higher trajectory of success. The sector currently produces more than 6,000 quality products, ranging from handloom saris, carpets and soaps to pickles and machine parts, for huge industries targeting domestic and international markets.

Clusters in India

The MSME landscape has matured over time and moved up the value chain. The MSME sector has evolved from the manufacturing of traditional products to much more hybrid products to the value-added services segment. This transition has been majorly fuelled by the consortium approach adopted by MSMEs. Firms in the MSME sector that were earlier facing difficulties in achieving economies of scale, specialization and innovation due to their small size are now increasingly benefitting from the advent of industrial clusters. Clusters and associated networks enable small firms to combine the advantages of running a small unit with the benefits of scale and specialization provided by large units. Currently, there are more than 600 industrial SMEs clusters and over 7,000 artisan/micro enterprise clusters operating in India. Moreover, there are about 2,500 untapped rural industry clusters in the country. Some of these clusters are so large that they account for nearly 80.0 per cent of production of a selected product within the country. The networking approach has helped MSMEs to overcome barriers such as technological obsolescence, supply chain incompetence, global competition and investment shortages. Furthermore, to capitalize on the benefits from specific target customer base, clusters are classified as export-oriented and specialized domestic ones. Tirupur textile and Vizag marine processing clusters focus mostly on exports. On the other hand, the requirements of large domestic firms are supplied by MSMEs in specialized domestic clusters such as Jamshedpur's engineering cluster and Pune's auto cluster.

However, only in recent years with the liberalization of economies, there is a concerted effort in cluster-growth by Indian government and different support institutions like United Nations Industrial Development Organization (UNIDO), Small Industries Development Bank of India (SIDBI), etc., for promoting the small firms. Cluster development initiatives include upgrading technology, forge strong intra-cluster

network, and networking with external associations. ICT can significantly complement cluster-growth initiatives by formalizing cluster operations and reducing transaction costs for common activities.

2. SME Cluster

The inter-firm linkages stimulated by these clusters and networks have aided MSMEs to move up the value chain and gain competitiveness. At the same time, given greater access to technology and better production coordination techniques in the sector, MSMEs' efficiency has significantly improved. This would provide them with greater business viability. Given this greater sense of sustainability, entrepreneurs have been emboldened to introduce innovation in products and processes and enter new geographies. Moreover, diffusion of information, resources and technical proficiencies within industrial clusters has reduced total costs and facilitated technical reforms. Most technological improvements in the sector were influenced by demand from large domestic or international buyers or supply-chain partners. In addition to the above benefits, firms within a specific cluster have been able to better utilize the available infrastructure by sharing the same transport mechanism. These clusters even helped the journey of rural artisans with innate skills to self-sufficiency by overcoming their funding and technology-based constraints.

Most Potential Industries:

- 1) Dairy based products
- 2) Automobile Components
- 3) Bio-coal Briquettes from agro-waste
- 4) General Purpose Machine Shop
- 5) Herbal & Ayurvedic products
- 6) Agro-processing Export oriented units
- 7) Cold storage unit
- 8) Starch from Jowar
- 9) Solar Cell
- 10) Computer Software / BPO / IT Related products.

Existing Clusters of Micro & Small Enterprises

Details of Major Clusters

Manufacturing Sector:

- Auto Ancillary, Pimpri- Chinchwad, Bhosari, Pune 411026
- General Engineering & Allied Industries Cluster, No. T – 204, MIDC Area, Bhosari, Pune 411026
- CFC Machine Engineering Private Limited, Bhosari, Pune 41126

Service Sector: Nil.

Name of the cluster: Auto Ancillary, Pimpri- Chinchwad, Bhosari, Pune

1	Principal Products Manufactured in the Cluster	Engineering, Machines Components and auto parts.
2	Name of the SPV	
3	No. of functional units in the cluster	46
4	Turnover of the clusters (Rs. In lack)	1664
5	Value of Exports from the clusters (per annum)	0
6	Employment in cluster	800
7	Average investment in plant & Machinery	
8	Major issues / requirement	Technology and Marketing
9	Presence of capable institutions	GM, DIC, Pune

Name of the cluster: General Engineering & Allied industries Cluster, No. T – 204, MIDC Area, Bhosri, Pune.

1	Principal Products Manufactured in the cluster	Manufacturing of Machine Components, Press Tools and Parts, Die and Moulds, Jig. & Fixtures and General Engineering Sector related services and CAD/CAM Services etc
2	Name of the SPV	
3	No. of functional units in the cluster	450
4	Turnover of the clusters (Rs. In	(Rs. In lack) 13000

	lack)	
5	Value of Exports from the clusters (per annum)	(Rs. In lack) 1748
6	Employment in cluster	7000
7	Average investment in plant & Machinery	-
8	Major issues / requirement	Technology and Marketing
9	Presence of capable institutions	GM, DIC, Pune

Name of the cluster: CFC Machine Engineering Private Limited, Bhosari, Pune

1	Principal Products Manufactured in the cluster	Engineering, Machines Components and Defence Components.
2	Name of the SPV	CFC Machine Engineering Private Limited
3	No. of functional units in the cluster	52
4	Turnover of the clusters (Rs. In lack)	
5	Value of Exports from the clusters (per annum)	0
6	Employment in cluster	500
7	Average investment in plant & Machinery	
8	Major issues / requirement	Technology, HR, Design and Marketing
9	Presence of capable institutions	GM, DIC, Pune

3. Validating my findings

The first and foremost activity in the cluster development process is to conduct a diagnostic study. The objective of conducting diagnostic study in a cluster is to map all the business processes of the cluster units viz. manufacturing processes, technology, marketing, quality control, testing, purchase, outsourcing, etc to find out its strengths, weaknesses, threats and opportunities (SWOT), problems and impediments,

suggestions and a well drawn action plan for enhancing competitiveness of the units of the cluster and to position the cluster on a self sustaining trajectory of growth. Diagnostic Study Report (DSR) is very important document and the study should be conducted with special attention. The Study focus on enhanced competitiveness, technology improvement, adoption of best manufacturing practices, marketing of products, employment generation, etc. There has to be direct linkages between the problems highlighted in the report and the measures suggested for improvement.

- a. The DSR should preferably be prepared by the end users and other agencies should only facilitate in preparation of reports. In case the DSR is prepared by other expert agencies other than end users, these reports must be thoroughly discussed with and vetted by the end users and concerned State Government. Such agencies should have relevant expertise in cluster development.
- b. Specific needs of the cluster regarding IPRs, Technology Upgradation, Information and Communication Technologies (ICT), Enterprise Resource Planning (ERP), energy efficiency, lean manufacturing, technology benchmarking (international/national), market potential assessment, skill up-gradation/ certification system, design development, comparative study with other clusters, twinning of clusters, need to improve safety, health, business literacy, welfare of workforce by the enterprises and their common bodies, social upliftment, etc. should be examined and included in the DSR.

From our findings, it was found that micro enterprises play a key role indeed in sustaining economic growth in India. They also provide employment by addressing gender imbalances. In Bhosari, Pune I found that most micro units and small units within SME clusters, The major issues facing the cluster where there were twinning possibilities were technology (and maybe associated training) in the areas of mould designing, low pressure die casting, CNC machining, testing equipment, etc.

Cluster Level Challenges

On selecting the target cluster area of Engineering members, it was felt that a gap analysis of these units be carried out, based on the interest shown by the some members. Accordingly a Gap Analysis was carried out for 25 interested units.

The study suggested the following major issues for intervention:

- Absence of vision and policy, strategy in line with vision
- Absence of marketing strategy
- Human resource development: Inadequate efforts in employee development,

absence of confidence in communication skills Inability to retain employees and succession planning (in some cases)

- Technical capability: Lack of effort towards next level changes (5S, TPM, Lean, SPC) missing, productivity issues, lack of product design capability, lack of strong product technology/ collaboration to break into the demanding auto segment

The strategy was to

- Create interest among the units through visits/workshops/classroom training
- Unit level handholding in training and
- Review progress and take corrective steps.

4. Collaboration

This section looks at both the benefits and pitfalls that businesses must consider when considering collaborative working. With the world of business growing and developing rapidly, and with the increased demands on companies to deliver complex packages of work, it is becoming more and more difficult for SMEs to meet all the challenges and conditions outlined by the customer. To strengthen your position in the marketplace, forming a collaborative partnership will allow you to deliver projects that you may otherwise not be able to deliver on your own, or be precluded from at the prequalification stage of tendering. There is always a reason to collaborate. The following list provides some areas where a collaborative partnership may be worth considering as an option:

Contract requirement-

The type and nature of the contract you wish to enter into states that collaboration for the work is required or preferred. This may be required to reduce risk to the client by sharing responsibility and risk within the supply chain. Such collaboration could mean working directly with the client differently from the traditional supplier / client relationship, or it could mean a number of suppliers grouping together to create a team to deliver a larger scope of work that no individual supplier can deliver alone. A Collaborative Working System is an organizational unit that emerges when collaboration takes place, whether formally or informally, intentionally or unintentionally.

CWS are those in which conscious efforts have been made to create strategies, policies, and structures in order to institutionalize values, behaviors and practices that promote cooperation among different parties in an organization to achieve goals.

Financial rewards-

A group of companies tendering for a project (successfully) could mean acquisition of work for your business that is potentially outside your normal scope. Or collaborating with another partner may simply increase the probability of attaining that project work. Since significant time is often spent preparing for tenders, anything that can increase the probability of successful contract award has to be considered worthwhile in financial terms.

Risks are too high independently –

As an SME you may know that you have the skills and capabilities to complete a contract, but the contract may hold too many risks for your size of operations. Collaborative working allows risks to be appropriately shared within the project.

Shared responsibility –

Within a collaborative partnership, the responsibilities can also be shared out, utilizing the best resources available while spreading the load evenly.

Combine expertise and share skills –

Each member of the collaboration will have different skill sets and capabilities. These various levels of knowledge and experience can be combined.

Solve a problem –

Collaborative problem solving groups are designed to work together with a focus on solving real world problems. Members of such groups share a common concern, a similar passion, and a commitment to their work. Members are willing to ask questions and try to understand common issues. They share expertise, experiences, tools, and methods.

Increase efficiency –

Collaboration does not simply mean working next to the other party. Geographic distances can occur between parties, however aligned they are with understanding and goals. Efficiency can be achieved in these 'remote' collaborations through the use of modern communication technologies such as web conferences, video conferences and other e-conference facilities. Typical benefits from these technologies include savings on travel time in reviewing documents, drawings, and project progress etc. This allows more frequent updates between design office, production facility and end client and removes the need for all three elements to be co-located. Another major benefit is the reduced costs and energy expended during travel to meetings, and the improved

environmental credentials as a result. Greater efficiency can also be achieved by enabling access to specific experience or skills, in order to get the best result.

Open up funding opportunities –

A collaborative group is likely to have access to different pools of funding, particularly if located in different funding zones: county boroughs for example. Although it is not possible for two zones to provide funding for the same work, there may be restrictions placed on a single entity on secondary funding if they have already had an allocation for something else. Collaboration with a party outside that funding zone can give access to more pots of funding.

Pooling of financial resources –

A collaborative group is likely to have access to greater financial facilities, and financial resources can therefore be pooled for the good of the project. Similarly, since most companies get different discount structures from their respective material and equipment suppliers, the group will have access to the best quality, lowest price, and quickest delivery from their respective supply chain. This should lead to quicker project delivery and improved payment terms for both the client and the supply chain.

5 Conclusions

I found limited knowledge, sharing and collaboration among the SMEs in Bhosari, Pune cluster. Also the sharing and cooperation within this cluster can be improved with formal networks among forward and backward linkages. However, till now, not much attention has been paid to understand the potential utility of collaboration in SME clusters. Therefore, we feel that this is the opportune moment to take a look at the potential merits of collaboration adoption and investigate whether a fresh approach is needed to build solutions specific for developing regions like India. This collaboration makes efficient use of networking instruments (search/find potential partners and opportunities), develop collaboration trans-nationally and internationally, support the emergence of new value chains through cross-sectorial cooperation, access the latest quality information on cluster development and improve their performance and increase their—as well as their members- competitiveness.

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