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  Raju Roy

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  Dr. Ashish Sharma, Amrit Philora

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  Ankit Agarwal, Gulshan Kumar

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  Dr. Mini Jain, Parul Garg

• A REFLECTION ON FINANCIAL PROBLEMS OF WOMEN ENTREPRENEURS IN PONDICHERRY
  Dr. K. Lavanya Latha

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  Vikas Gupta, Nitin Saxena

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  Dr. Nitin Tanted, Shrin Khan

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  Ms. Abha Sharma, Dr. A.K Tyagi, Dr. Vibhuti Tyagi
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PROFESSOR
Success & failures are the outcome of efficiency of resource management. 'Vinicius', the mascot of Rio Olympic left us with smiles & tears. From the entire world 206 countries participated in mega sport fair. India participated in 71 scheduled events of Rio Olympic-2016, with 120 athletes. Securing 67th position with Winning of two prestigious medals in this event is a matter of pride for all Indians.

But is this really remarkable? Countries which are economically similar or even weaker than India performed better than us. Iran finished at 25th, Thailand at 35, Ethiopia at 44 and Fiji at 54th position. Indian athlete could not earn single gold medal, where Michael Phelps won 05 gold medals alone. But, if we consider it as failure of our athletes, we are wrong. It could be better managed, through proper Resource Management as India has largest youth population.

Resource management reefer to managing the resource of country. This can mean many different things. This can mean managing resources such as finances, human skills, information technology and all other natural resources. The approach to resource management is a concept that has been around for centuries and has maintained popularity because of its success. The resource management is a five-step process which includes the initiation stage, planning or design stage, execution or production stage, monitoring and controlling and the completion stage along with the scheduled road map.

This issue of SAARANSH, emphasized on effective & efficient quality management of available resources. Whether it may be banking practices or Human Resource of Pharmaceutical organizations. Journal includes the research work over identifying the service quality effective factors of banking industry, Customer Service Quality, Employee Quality improvement and Quality of Life of workers. Simultaneously, it also includes the research works, inclining towards, management of financial assets & processes to perform desirably, which cover- Financials of Infrastructure, FDIs and Financial Problems of Women Entrepreneurs.

We hope, this issue of SAARANSH, will certainly motivate management practitioners to get more involved in assessing their current assets & utilize them effectively. Moreover, I am thankful to all the research scholars & other management practitioners to share their valuable suggestion & guideline to improve the impact of SAARANSH. I extend my heartiest gratitude for valuable support/ suggestions and expecting your patronage in future.

–Dr Arvind Singh
EXPERT’S-COMMENTS
for
“SAARANSH” RKG Journal of Management

Dr Rita Bahuguna Joshi, President, U. P. Congress Committee
☞ ‘It is very informative and useful.’

Prof. Jagdish Prakash, Ex Vice Chancellor, University of Allahabad
☞ SAARANSH is a very standard journal in the area of management which includes empirical articles by national and international authors’

Prof. R. C. Saraswat, Vice Chancellor, Dr. Ram Manohar Lohiya Avadh University, Faizabad
☞ ‘I am pretty sure that the professionals and faculty of various colleges will contribute in the forthcoming issue of the journal.’

Prof. R. L. Tamboli, Professor & Head, Deptt of ABST, ML Sukhadia University, Udaipur
☞ ‘The journal will be getting commanding heights in India, and thereafter abroad, positively.’

Dr. A. K. Bajpai, Professor, Mechanical Engineering Dept, M.M.M. Engineering College, Gorakhpur
☞ The outcome of this Journal from your Institution helps in development better academic environment in your College. The Engineering & Management community; Business and Industry and Society all are going to be benefited by your efforts.’

Prof. Prithul Chakraborti, Head, CMS, JIS College of Engineering, Kalyan, Nadia
☞ ‘I appreciate the quality of the contents of the journal.’

Prof. V. Vijay Durga Prasad, Professor and Head, MBA, PS College of Engineering & Technology, Vijayawada
☞ ‘The significant point which I liked is the feedback form about the articles published in the issue.’

Prof. (Dr). G. K. Upadhyay, Director, Sri Sri Institute of Technology & Management, Kasganj
☞ ‘It proves to be a result of great hard work & creativity’

Dr R. K. Singh, Faculty, MONIRBA, University of Allahabad, Allahabad
☞ ‘The journal is overall an excellent attempt’
CONTENTS

- A COMPARATIVE ANALYSIS OF DIVIDEND POLICY OF SELECTED NEW AND OLD GENERATION PRIVATE BANKS IN INDIA
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- A CRITICAL EVALUATION OF HRD PRACTICES ADOPTED BY PHARMACEUTICAL INDUSTRY
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INTRODUCTION

Distribution of profit to shareholders is termed as dividend (Pandey, 2004). Profit earned by companies can be retained by them for future usage, or can be returned to shareholders as dividends. Each business organization, has their own unique circumstances to take a very strategic decision with regards to the money generated through profit, i.e. whether to keep retain it or to return it to the shareholders. A number of conflicting theories have also been developed with respect to dividend (Alkuwari, 2009). The pertinent in this respect to note that “The harder we look at the dividend picture the more it seems like a puzzle, with pieces that just do not fit together” (Black 1976). There are different theories on dividend payment, and they deal with whether dividend payment increases or decreases the valuation of the company. It is not difficult to identify the variables which affect the dividend payment decisions, however, what is difficult to determine is how these factors interact among themselves (Ross, 2009).

Most of the existing researches have focussed on developed Western Europe and the Northern American regions. Whereas emerging economies as a whole attracted very little attention in this respect (Musiega et al, 2013). Decisions to pay dividend and its impact on valuation of shares, is also widely debated in the literature of corporate finance. One set of argument put forth says that, dividend payment and increase in its amount, increases the valuation of the firm, whereas another line of argument says that, it decreases the valuation of the firm. Still there are other researchers who think, dividend payment decisions have no impact on the valuation of the shares (Anupam, 2012). Modigliani and Miller (1961) proposed that dividend payment decisions are irrelevant from the equity valuation perspective.

Dividend payment decisions are signals to investors regarding, what the incumbent management thinks about the future of the company. According to Bishop et al (2000), profits earned can be ploughed back into the business or kept by the management for investment for capital expenditure in future projects. In taking these decisions, what is pertinent to consider is not only how much money is needed for fresh capital expenditure, but also, what effect the capital expenditure will have on the share price of the company. Also firms should not drastically change, their dividend pay-out ratio, as it will impact the planned future investments (Abdulahi, 2011).

LITERATURE REVIEW

Krishman (1963) propagated a bird in the hand theory, regarding dividend distribution. According to this theory investors are risk averse by their very nature. Linter (1962), Gordon and Shapiro...
got support for this theory, through their research. The underlying logic for this behaviour was that returns from the equity market is uncertain, also there is considerable information asymmetry in the system. As a result, investors will like dividend payment, as it transfers money from the company to the investors.

On the other hand ‘Agency Theory’, propagated by Jensen (1986), argues that the dividend payment restricts the fund available to managers, as far as investment in new projects is concerned.

Lintner (1956) focussed on the behavioural side of the policy regarding Dividend Payment Decisions. He concluded that the managers take the decisions to increase the proportion of Dividend Payment, only when they are certain that the firm’s earnings have increased permanently. Brittain (1966) studied the Dividend Payment Policy and tax structure, over a long period (1919-1960) and concluded that, the principal determinant of Dividend Payment Policy decisions is Cash Flow of firms, not the Net Profit figure. On the other hand Fama and Babiak (1968), concluded that Net Profit is a better determinant of Dividend Payment, than either the Cash Flow figures or the Net Profit, on the basis of data analysed of 392 major firms, on a timeframe of 1946 to 1964.

In the Indian context, there are certain studies, in this regard. Rao and Sarma (1971) concluded that Lintner model can explain the Dividend Payment Decisions, in industries such as coal mining, sugar, jute textiles, chemical, and cement industries.

Bhattacharya (1979) was of the view that bird in hand hypothesis is not proper. Moreover, it was further suggested, that the firm’s level of risk assumption affects the level of dividend. Bhat and Pandey (1994) found support of Lintner’s model in the Indian context, which proved that Indian managers increased the level of dividend, only when they became absolutely certain about the increase in profitability.

Mishra and Narender (1996) tested the Lintner’s model of Dividend Payment on Public Sector Units (PSUs) in India. The study concluded that, the number of Dividend Paying PSUs, compared to the total number of PSUs is quite small. The study also came to the conclusion that, the Dividend Payment Ratio (DPR), remain constant for most of the companies, even if the Earning per Share (EPS) figure shows a constant improvement. On the other hand Saxena (1999) found that, past revenue growth rate and future earnings forecast, how many shareholders a company has, and systematic risk act as the Determinants of Dividend Pay-out Policy.

Naceur, Goaied and Belanes (2006) tested Lintner’s model in the context of Tunisian companies. This research found that, Tunisian firms follow a stable dividend policy; it also found that the primary determinant of Dividend Payment decisions is current earnings, instead of past Dividend Payment decisions.

Husam et al (2007) examined the determinants of corporate dividend policy in the context of Jordanian companies. This research endeavour found that, the proportion of ownership by insiders and the government are important determinants of Dividend Payment decisions; other determinants are size, age, and profitability of the firm.

Naeem and Nasr (2007) concluded on the basis of their research on Pakistan based companies, the companies are either reluctant to pay dividends or pay very less amount of dividend. The main determinants of Dividend are Profitability of the companies and their previous year’s Dividend Pay-out Ratio.

Kapoor (2008) examined the determinants of Dividend payment decision in the India’s Information Technology (IT) sector. The time period of this study was 2000-2006. This study found that only liquidity and year to year variation in profit are the only two determinants of this decision.

Musa (2009) in his study in the context of Nigerian firms came to the conclusion that current year’s earnings, previous year’s dividend, as well as cash flow act as the Determinant of Dividend Payment decisions.

Okpara and Godwin Chigozie (2010) found that in the context of Nigeria, three factors act as the determinant of Dividend Pay-out Ratio. They are current year’s Profitability, Current Ratio and previous year’s Dividend Pay-out Ratio.

Asif et al (2011) found that there is a negative relationship between Leverage of firms and their Dividend Pay-out Ratio. This conclusion was reached on the basis of research done on Pakistani firms, in the time period of 2002-2008.

Bose and Husain (2011), explored the Dividend
Pay-out policy of five sectors in India. These five sectors were Software, Finance, Steel, Electrical Machinery, and Pharmaceutical. Profitability of the companies is found to be the sole Determinant of Dividend Pay-out decisions.

Summinder and Prabhjot (2012) concluded that Indian Manufacturing MSMEs Dividend policy is in accordance with Lintner's model, Britain's first model and Darling's model hold good in case of Indian Manufacturing MSMEs.

Kuwari (2009) researched on Determinants of Dividends in the context of Gulf Co-operation Council (GCC) countries, this particular study found that, the primary intention of paying dividend is reduction of agency cost. This study also found that the firms do not look for long term target as far as Dividend Pay-out Ratio is concerned. The study concluded that, Dividend Pay-out Ratios have strong positive correlation with Ownership Structure, Firm Size, Firm Profitability, and negative correlation with the Leverage Ratio.

OBJECTIVE OF THE RESEARCH
In this research endeavour, the objective is to check whether the Dividend Pay-out Ratio (DPR) of the listed Public and Private banks differ significantly.

HYPOTHESIS OF THE RESEARCH:
The null hypotheses of the research are depicted below

H01- There is no difference between public and private banks, as far as Dividend Pay-out Ratio (DPR) is concerned for the financial year 2014-15.

H02- There is no difference between public and private banks, as far as Dividend Pay-out Ratio (DPR) is concerned for the financial year 2013-14.

RESEARCH METHODOLOGY
In this research endeavour Dividend Pay-out Ratio of banks vis. a vis. their ownership structure (whether private or public) is analysed.

Dividend Pay-out Ratio = Dividend Paid/Face Value per Share *100

The following new generation private banks are considered:
1. Axis Bank
2. HDFC Bank
3. ICICI Bank
4. IndusInd Bank
5. Kotak Mahindra Bank
6. Yes Bank

The following private banks are considered:
1. City Union Bank
2. Dhanlaxmi Bank
3. Federal Bank
4. J&K Bank
5. Karnataka Bank
6. Karur Vysya Bank
7. Lakshmi Vilas Bank
8. South Indian Bank

The DPR for two financial years i.e.2013-14, and 2014-15 are taken into account.

DATA USED
The source of the data for this research has been Capital Market database. The classification of the Banks is done, as per the Capital Market database classification. The period of the study, which is taken into account, is two financial years, i.e. financial year 2014-15, and 2013-14. In total six new generation private banks and eight old generation private banks are taken into account.

TOOLS USED
Data regarding DPR of Banks is put through Q-Q Plot to understand, whether the data is normally distributed. The results showed that the data is not normally distributed; as a result, non-parametric statistical tool ‘Kruskal-Wallis’ Test is used.

EMPIRICAL RESULTS
The empirical results depicted above clearly shows that, there is no statistically significant difference, as far as DPR of New Generation and Old Generation Private sector banks are concerned. As the p-value for both the Null Hypotheses is way above, 0.05 level, fail to reject both of them.
CONCLUSIONS

The present research endeavour shows that, New Generation and Old Generation Private sector banks do not differ as far as DPR is concerned. This result may not be surprising, as banking remains a highly regulated sector, and the key parameters of Bank profitability like reserve requirements, priority sector lending etc. remains same for the both public as well as private sector banks.

However, more comprehensive analysis can be done on the basis of size of the banks.

REFERENCES


Table 1: Kruskal-Wallis Test (for financial year 2014-15)

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<th>Ranks</th>
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<th>Mean Rank</th>
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<tr>
<td>DPR 2</td>
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<td>29.12</td>
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<tr>
<td>Total</td>
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**Test Statistics**

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<tr>
<th>DPR</th>
<th>Chi-Square</th>
<th>Df</th>
<th>Asymp. Sig.</th>
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<tbody>
<tr>
<td>DPR</td>
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<td>1</td>
<td>.504</td>
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</table>

a. Kruskal Wallis Test
b. Grouping Variable: 1 = New Generation Private Sector Banks 2 = Old Generation Private Sector Banks

Table 2: Kruskal-Wallis Test (for financial year 2013-14)

<table>
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<tr>
<th>Ranks</th>
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</thead>
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<tr>
<td>DPR 2</td>
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<td>19.32</td>
</tr>
<tr>
<td>Total</td>
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<td></td>
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**Test Statistics**

<table>
<thead>
<tr>
<th>DPR</th>
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<tbody>
<tr>
<td>DPR</td>
<td>.307</td>
<td>1</td>
<td>.403</td>
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</tbody>
</table>

a. Kruskal Wallis Test
b. Grouping Variable: 1 = New Generation Private Sector Banks 2 = Old Generation Private Sector Banks
INTRODUCTION

Pharmaceutical industry: The modern Pharmaceutical industry is a highly competitive industry which is not assembled globally. It was originated in late nineteenth century in the Upper Rhine Valley, Switzerland. Many Pharmaceutical companies started as a part of Rhine Valley family, in which most are still performing very well in their market respectively. This industry is also famous for its Research & Development (R&D) activities. The Pharmaceutical industry was rapidly boosted up in sixties; during this period healthcare industry was boomed globally. The major developments came in this industry in the seventies with tighter regulatory frameworks. In India the Pharma industry has been classified in various categories such as; Anti-Infective, Gastrointestinal, Cardiac, Respiratory, Vitamins/Minerals/Nutrient, Pain, Dermatologic, Gynecology, Neuro Psychiatry, Ant diabetics, Ophthalmic, etc.

When we discuss about global Pharma industry, it is a combination of various point of views in the protection of intellectual assets by doing Patents, acquiring laws, effective cooperation working, etc.

Human Resource Development: The Human Resource Development (HRD) is a long term process to direct the employees towards improvements related to his future jobs. The development programmes are designed to educate the employee and make him more compatible towards his organization’s future needs.

HRD in Pharmaceutical industry: The organizational design and development process of Pharma industry provides inputs for the HRD functions. In Pharmaceutical business HRD process includes the various points which are connected with every individual employee. In this
industry HRD consist of various sub systems such as Performance Appraisal system, Training Module system, Career system, Work systems, Cultural systems, Self-Renewal system etc, to support the HRD process for the development of every employee. The HRD process in Pharma industry consists of several practices such as Recruitment practices, Retention practices, Training and Development practices, Management Development Programs, Trade Union practices, Grievance Redressing practices for the smooth running of organization.

LITERATURE REVIEW
For doing in-depth study of any topic proper fundamental review is necessary to gain the required knowledge. Therefore the survey of literature has been conducted based upon the information with reference to each category in the sample.

Regarding the HRD practices Joseph Bruccoleri (2007), concluded that almost all the innovative companies are using the best HRD practices to improve morale, productivity and retention of the employees. He also commented on what worked for those companies and did not work. Volker Mahnke (2007) concluded that HR Practitioners are the think tank of any organization which suggest the pros and cons of any practice to achieve success.

Discussing about the various HRD practices in Pharma industry, Taylor Crook & Kevin Mckenna (2008) concluded that during establishing an HRD plan Pharma companies are taking the help of recruitment agencies. William Broofs (2009) concluded that mentor program for skilled & unskilled employees in Pharma industry is a good way to create more Pharma professionals. John De Warrow (2010) concluded, on the basis of his research that HR practices create the positive as well as negative exchanges in the Pharma industry. The low morale and dull attitude towards work is negative exchange while low stress, high morale and motivation towards work are positive exchanges in this industry.

OBJECTIVES OF STUDY
➢ To go through various HRD practices adopted in Pharmaceutical industry.
➢ To understand and evaluate the system and sub system of HRD practices adopted by selected Pharmaceutical units.
➢ To suggest ways and means for improving activities of HRD practices in Pharmaceutical industry as remedial measures.

RESEARCH METHODOLOGY
Research design: The selection of research design is generally outcome of the literature review; the researcher has made the research design to make an attempt to satisfy the objectives of study and to identify a proper platform for the research. For micro level study of the topic the researcher has selected three Pharma companies from this industry:-
- Ranbaxy
- Mankind
- Systopic

Collection of data: To do an in-depth study of the topic the researcher has collected data from primary as well as secondary sources. The data collection is totally based on the objectives of the study. The primary sources of information are interaction and questionnaire survey with the senior managers in the Pharma industry. The secondary data sources are published business reports, websites of Pharma companies, literature published by Pharmacy Human Resource Council, circulars of Govt. of India, and various other regulatory and business related issued in the context of HRD for Pharma industry.

LIMITATIONS OF STUDY
The researcher had faced the following problems during his research work:
- The employees were unaware of the HRD practices.
- Unavailability of the officials.
- Due to shortage of time the researcher could cover only three Pharma companies.
- Some company officials were unable to reveal the HRD practices information regarding their company.
DATA ANALYSIS & INTERPRETATION

The evaluation of the data for the Pharma industry was done by the researcher through following categories:

❖ Recruitment Practices

Internet resources: Websites are the medium for advertisement with the print media. Various Pharma companies are using internet for recruitment process. Through this method those companies are able to save time in sorting out the appropriate resumes. 56% respondents say often and remaining fall in the category always, sometimes and rarely.

Campus selection: This method is always followed by 27%, often followed by 17%, sometimes followed by 6%, and rarely followed by 50%. This method consists of making association with institutions. The advantage of this method is that it is easy to evaluate the level of education and training of institution but there is a difficulty in this method is that it has a vast market and every institution has its own limitations.

Recruit trainees: Trainees are often recruited by more than 50% of the companies. The respondents who responded always are 33%. The data collected for recruitment of trainees, from the companies when analyzed, showed that the range of technical trainees is from 85% to 95%. Non technical functions like marketing, HR, finance are covered by only 5% to 15%. The analysis indicates that the proportion of non technical trainees in comparison with technical trainees are marginal.

Temporary or contract staff: This method is followed by about 23% respondents and about 40% respondents companies follow it sometimes.

Employment agencies or consultants: This method is used by 54% respondent companies followed by 13% often and 33% sometimes used this method. This is used occasionally because it may be more expansive than in-house recruitment.

In-house recruitment: As a policy matter 70% respondent companies follow this and 10% often use this method. This is done on the basis of need of the organization and with the consent of HR.

Personal contacts or Recommendations: About 36% respondents responded Personal contact method, 50% often, and 7% sometimes. This method is generally considered as more effective.

❖ Retention Practices

Subsidizes food at unit canteen: More than 90% of the respondents provide this facility. Provision of food, during lunch or dinner break, breakfast, beverages etc. Provision of good canteen facility at the workplace has very positive effect on reduction and employee turnover reduction.

Recreation facility at unit: 70% of Pharma companies provide recreation facilities. Recreation for 10 minutes in the form of a game, walk etc. are the good measures for stress management. It provides an opportunity for people to meet informally and in a stress free environment.

Subsidized transport facility: If workforce is picked up for work, dropped at workplace and then again back home, it’s a good solution to the problem, of commutation. 90% of the respondent companies provide this facility at subsidized rates.

Family welfare schemes: In Pharma industry the family members of the employees are also covered under welfare measures like community development, prizes and recognitions for meritorious students and get together functions provide a chance for socialization and increasing integrity. 80% of companies have reported such schemes.

Medical insurance: Insurance against unpredictable events is an accepted way of life. Work situation provides an opportunity for group medical insurance. 90% companies have subscribed for this.

❖ Educational benefits

Complete fee reimbursement: 80% of companies provide the facility for advancing in Pharma, technical and managerial education. 20% companies provide partial facility in fee reimbursement.

Reimbursement for workshops: For various advanced knowledge and research based working, workshops and seminars provide good
opportunity for advance learning and networking outside the company. 80% of companies practice this and for R&D based companies this expense has value.

**Complete paid leave/Sabbatical**: In Pharma industry most scientists may be required to work in research institutions on research of latest origins related to the industry. 60% of companies have provision for this, which is a career booster for the employees.

❖ **Training and Development practices**: Pharmaceutical training program is defined as a process of changing employee behavior pattern through some structured activities. 95% Pharma companies conduct many training programs for the employees within and outside the organization. These activities may be short term training program and may be new product related trainings.

❖ **MDPs practice**: The MDPs (Management Development Program) are threefold-

i) Development practices focused on effectiveness.

ii) Effective learning process

iii) Effective managerial behavior.

The internal training programs by in house faculty reported by 80% of companies. Almost 100% companies were conducting in house program by external faculties. Outside organized programs with external faculty were conducted by 90% companies, 10% rely on external consultants for such matters.

❖ **Appraisal practices**: Pharma organizations performance appraisal may be the form of periodic interview. 80% Pharma companies follow annual periodic records to record the performance of employees while 15% Pharma companies follow semiannual periodic record to record employees’ standards.

❖ **Grievance redressing practices**: In Indian context 90% companies have proper grievance handling system while 10% do not have proper grievance handling system.

❖ **Trade union practices**: 100% existence of trade union is found in Pharma companies. But it is not compulsory to be a part of any state or national level trade union body for an employee. In research only 79% Pharma employees were accepted that are member of any state/national trade union while 21% Pharma employee refused that they are member of any trade union body.

**FINDINGS**

There is no special source of recruitment in Pharma industry although the environment and technology of Pharma business is different from engineering or chemical and such other established businesses. Employee welfare practices are sufficient in Pharma industry for retaining employees. These practices are subsidized food at unit canteen, recreation facility, health club at unit, subsidized transport facility, family welfare schemes and medical insurance. The educational benefits offered by Pharma companies are considerable. 80-90% Pharma companies follow the employee education practices. In Pharma industry the training and development facility is well structured whether it is on job or off job. Pharma product related or employee enhancement related trainings are sufficient in this industry. All the companies follow the practices of short term skills development and product information. The MDPs (Management Development Programs) are organized by all the organizations on the basis of specific requirements. All the companies have specific program for behavioral modifications and stress management. Pharma companies follow the practice of performance appraisal in the form of periodic interview. Pharma HR followed 55% MBO (Management By Objectives), 35% 360 degree appraisal and rest 10% focuses towards self appraisal method. 90% Pharma companies have proper grievance handling system. The findings show that only 86% Pharma employees admitted that they had never faced any unrest condition in the Pharma organization while 14% admitted that they had unrest in the organization. Trade unions exist in all Pharma companies but it is not compulsory to be a part of any state or national level trade union body for an employee. The findings show that 60% of respondents are saying that organizational development is one of the most important needs. 80% respondents agree that management skills development program is necessary for better understanding of the job for the managers. 70% of the respondents have communicated that Pharma business is particularly technology driven business. The suggestions by 30% of respondents that in Indian Pharma industry there must be improvement in compensation and welfare measures practices of Pharma employees.
CONCLUSIONS

The Pharma business is peculiar in terms of resources, products, business organizations and organization. This required a highly skilled workforce. Peculiarity of modern Pharma products is that they can be designed using modern Pharma technology for obtaining predictable results. Pharma business is technology driven business. It begins with R&D activities and highly specialized knowledge and skills are required. The commercialization of Pharma products involves proprietary and regulatory issues. Pharma business operations require strong orientation of technology for effective performance. This industry requires highly knowledgeable workforce with skills and capabilities of handling operations related to R&D and products and services. It has become a global phenomenon that Pharma is a fast growing industrial sector. Proper education and training is required for preparation of workforce with right type of skills and competencies. In the case of almost all Pharma companies the manpower is increasing. The HRD practices are complex and subject to rapid changes because of advent in technologies in different areas of Pharma. The manpower requirements and related issues are not yet very satisfactorily addressed because of lack of information and experimental phase of the business. There is a need for creation of awareness and facilities for developing human resource from the viewpoint of technical as well as managerial capabilities.

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Factors Affecting on Service Quality of Banks and Customer Satisfaction: A Study with Special Reference to Jorhat District of Assam

Raju Roy*

ABSTRACT

Customer satisfaction is essential for the success of service industry like bank. The quality of service has become an important aspect of customer satisfaction. Day by day it has been proven that better service quality is enhance to customer satisfaction. This paper analyses the various factor affecting the service quality and customer satisfaction in State Bank of India, Nationalise Bank and Private sector banks in Jorhat district of Assam. The present study used five dimensions service quality for measuring customer satisfaction of banks such as tangibility, reliability, responsiveness, assurance and empathy (Parasuraman, Zeithaml, & Berry, 1985). A structured questionnaire with 5 point Likert scale has been used to collect the data by conducting survey. The sample size is 384 and is chosen by using convenience sampling. Data has been analysed by using SPSS software (version: 16). Delivering quality services is the best possible strategy to gain success in competitive environment. On the other hand bank wise varying the dimension of service quality affect the customer satisfaction, responsiveness gap is higher in State bank of India, Tangibility gap in nationalised banks and assurance in case of private banks which indicates that respondents are dissatisfied due to service quality provided by bank but tangibility gap is lower in State banks of India, Assurance in case of nationalised bank and Reliability of Private bank indicates that the respondents are satisfied with the service quality of bank. The overall study shows that customer's satisfaction is affected by the dimensions of service quality.

Key Words: Service Quality, Customer Satisfaction, dissatisfaction and SERVQUAL

INTRODUCTION

Service quality is a focused evaluation that reflects the customer's perception of specific dimensions of service: tangibility, reliability, responsiveness, assurance and empathy and it includes providing right service, to the right people, at the right time, at the right place and at the right price for attaining for ultimate consumer satisfaction. Success of a service firm depends on the quality of service it delivers to its customers. Service quality basically is a function of two things. i.e. customers' expectations and perceived reality. Customer built their expectations regarding a service provider through word of mouth communications regarding, from their past experiences and to some extent because of their personal needs as well. These expectations are later on matched with the perceived reality when a customer comes in touch with the service facility. This matching of expectations with perception at the point of delivery reveals the quality of service delivered with resultant customer satisfaction.

Need To Measure Customer Satisfaction

Customers are viewed as a group whose satisfaction with the enterprise must be incorporated in strategic planning efforts. Forward looking companies are finding value in directly measuring and tracking customer satisfaction as an important strategic success indicator. Customer satisfaction measurement helps to promote an increased focus on customer and stimulate improvements in the work practise and processes used within the company. SERVQUAL model (Parasuraman et al) has been used widely at national and international levels to measure the customer satisfaction which focus on different dimensions of this model.

REVIEW OF LITERATURE

Jayaraman Munusamy et.al (2010) in her study focused on the measurement of the customer satisfaction on through delivery of service quality in banking sector in Malaysia, Their study highlights the parameters in banking industry for

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improvement in delivery of service quality and also gives a some appropriate methods that have been used for the measurement of customer satisfaction. The methodology followed was data collection from random respondents of the general population. Considering the fact that different background have different expectation level, a large respondent’s population was targeted for the research. The questionnaire was collected from 117 respondents from different backgrounds. The study found that assurance has a positive relationship with customer satisfaction, but without significant effect. Reliability is the timeliness and accuracy in service provided, and says reliability is the timeless and accuracy in service provided, and says reliability does not have much impact on customer satisfaction. Responsiveness is the timely responses, which the customer get from their service providers. The study suggested that responsiveness factor is highly related to customer satisfaction.

Fatima et. al (2011) in her article explained that service quality is important mainly in the service enterprises. For growth and development of the enterprise depends on the service quality. As service quality is the only way to satisfy majority customers. Hence enterprise concentrates more on the service quality today. Quality in service is also interrelated to other behavioural outcomes of the customers. The study understands the various customers’ perceptions about the service quality factor like Tangibility, Reliability, Responsiveness, Assurance and Empathy in the banking industry and the satisfaction level towards the banks. It also analysis the impact of these service quality factors on the satisfaction level based on the demographic differences. The study collects the perceptions about the various service quality factors through purposive sampling method and analysis the impact of the service quality factors. The data were collected on the basis of the various demographic variables and finally study concludes saying about the existence of a close bond between the service quality factors and the customer satisfaction level. And also it is found that the impact of the service quality factors on customer satisfaction was varying with the demography of the customers.

Mrs, G.Santhyavalli (2011) states in his research article by using convenience sampling technique and SERVQUAL Model used to determine quality of customer satisfaction. He also states that recognition of service quality now acts as a competitive weapon. The Factor analysis clearly indicates that among five dimensions Reliability, Responsiveness, Empathy and Tangibility are the major factor responsible for customer satisfaction.

Hereinto et.al (2011) in his study focuses on how the influence of service quality affects the satisfaction of the banking customers. The sample size taken for the study is 100 savings customers of the bank. Data was collected from the population by random sampling technique. A simple regression model is fitted to the data. The paper defines the various dimension of service quality like assurance, reliability, Responsiveness, Tangibility and Empathy. And the customer satisfaction factors like speed, accuracy, safe and comfort. The characteristics of the respondents were considered based on their demographic profile like sex, age, income, occupation etc. And the profile perception about the customer satisfaction were analysed from the indicators of the same. Service quality has 17 indicators and customer satisfaction has 12 indicators. The various indicators of both the service quality and customer satisfaction are measured using the scores from the questionnaire given to the sample population on a 5 point Likert Scale. And then the regression model was estimated using SPSS tool. From the analysis, the study concludes that there is a significant relation between the service quality and customer satisfaction and service quality is very important and consists of actions like quick response, commitment, staff availability, and right service at right time, complaint solution. Competency and capability of the staff in the bank.

Pamita Mehata (2012) et al. in their study aim is the measurement of the service quality in the banking sector. Segmentation of the customer based on their perception about the high and low service quality factors and identifying the relation between both and find the importance of various dimensions of service quality and its influence on customer satisfaction. For this study, public sector bank, Private sector banks and co-operative banks were chosen. To understand the relationship between the two segments of the customer's Chi-square was used. The study also defines the various dimensions on service quality and used
regression analysis to understand relative importance between the dimensions. The sample population was counted to be total 293 respondents from 6 banks using purposive sampling and personal interview was conducted. To perform segmentation analysis, the customers were classified based on their service quality scores. The report found that the type of account held by the customers has more influence on the service quality segment. Hence the study suggests that the type of account is a significant demographic variable in measuring the service quality perception. Multiple regression analysis was carried out to analysis the relative importance of the various dimensions influencing the overall service quality, overall customer satisfaction and loyalty. The study concludes saying the highest shortfall and assurance shows the lowest, when compared customer expectations and also suggest that type of account is a significant variable in profiling the two segments.

Vibhor Jain et. al (2012) in her study was conducted to understand the perception of service quality in the banking sector and also to evaluate how it helps in enhancing the reputation and attract customer loyalty. With the increased competition among the private sector bank, this study would help in defining a strategy to achieve the competitive edge and also satisfied customers. Hence service quality has been used to position the banks in the tough market. The study was administered through private banks. The study has taken the SERVQUAL tool for measurement of the service quality offered by the private players in the banking industry. The main assumption is Service quality is multi-dimensional concept and these dimension help in measuring the service quality. The responses were collected based on five dimensions namely, assurance, reliability, Responsiveness, Tangibility and Empathy. Finding of the study that Reliability and Responsiveness are the most relevant factor for the service quality perception and they have computed the individual scores with the average mean value scored by the private banks under the study. The study found that among the four banks under the study, HDFC banks has the highest quality perception in terms of the various dimensions. The study concludes with suggestions for the private banks to be very competitive in the industry.

OBJECTIVES OF STUDY
- To analysis the various dimensions of service quality of banks operating in Jorhat district of Assam
- To analyse the factors that affects the level of satisfaction and dissatisfaction of bank customers in Jorhat District of Assam

HYPOTHESIS OF THE STUDY
- Ho: There is no significance impact of service quality on customer satisfaction of banks.
- Ho: There is no significance difference in quality of services in banks.

METHODOLOGY OF THE STUDY

<table>
<thead>
<tr>
<th>Bank Group</th>
<th>Total Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>A State Bank</td>
<td>106</td>
</tr>
<tr>
<td>B Nationalized Bank</td>
<td>213</td>
</tr>
<tr>
<td>C Private Bank</td>
<td>65</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>384</strong></td>
</tr>
</tbody>
</table>

The sample size of the respondents were selected from the sample banks branches based on different parameters like, semi-urban rural banks, savings bank account, term deposit account, current account, loan account, transaction period, income level, occupation, age and qualification of customer. A total of 384 respondents were selected representing employees, students, professional and business community by using convenience sampling method. Here, sample size of bank customer was determined according to sample table given by Research Advisors and related review of literature (Alreek & Settle and Krisanan, A.K. Kochu). Data Collected with the help of 5 point Likert Scale 5-Strongly agree, 4-agree, 3-neutral, 2-disagree and 1-strongly disagree. Data was analysed with the help of various statistical techniques like mean, standard deviation, and t-test. Service qualities in banks were measured with the help of SERVQUAL model. Analysis of variance (ANOVA) was used to test the significance of difference among more than two sample means. The collected data has been analyzed through SPSS 16 version.
DATA ANALYSIS AND INTERPRETATION

Reliability Assessment

To test the reliability of the set of items forming the scale, a measure of construct reliability was computed. Cronbach's Alpha coefficient measures the reliability of various factors influencing the service quality expectation and perception level of the respondents of both the banks.

In any social science research a reliability coefficient of .70 or higher is considered as acceptable, suggesting that the items have relatively high internal consistency. But in few study if reliability coefficient is more than .50 it is also acceptable. The table 1 shows that, in SBI, the Expectation level of the respondents is .852 and perception level is .906, in nationalised bank the Cronbach's alpha for expectation level of the respondents is at .569 and for the perception level is .836. On the other hand in private sector bank, expectation level of respondents is .768 and perception level is .816. Hence it is inferred that for expectations and perception level of all the factors namely Tangibility, Assurance, responsibility and empathy and have high reliable and in case of nationalised bank expectation reliability is average level. (Salman Atif at el)

Dimensions of service quality of Banks

In the past service quality was measured only on tangibles services because of more dominance were from manufacturing and trading industry in India. But now, due to the increasing importance of service sector in the economy, the measurement of service quality has now become important. Therefore this analysis part was an attempt to find out the various dimensions of service quality among the undertaken three groups of banks.

Analysis: From the above table it is seen the comparative view about the service quality of five dimensions in three bank groups. It is clear that a gap between perceptions and expectations is significant for all the factors in three categories of banks.

In case of state bank of India tangibility is better where responsiveness is the poorest among all the factors because customers have more expectations regarding tangibility of the banks but their demands are not fulfilled up to the expectation. In case of Nationalised bank assurance is better where tangibility is the poorest among all the factors because customers have more expectations regarding tangibility of banks but they failed to fulfill their demands. On the other hand in private sector bank responsiveness is the better and assurance is the poorest among all the factors because customers have more expectations regarding assurance of the banks but their demands are not fulfilled.

Table No. 1 reveals that reliability is the fourth factor, with lower gap in all category of bank branches. It also identified. There is a need to improve the service quality by this bank. If empathy is the second factors with lower gap in all the bank category .Overall, it can be concluded that nationalised banks show more gap as compared to state bank of India and private sector banks and there is terrible need to improve the service quality by these banks in terms of responsiveness in State Bank of India, followed by tangibility in nationalised bank and assurance in private sector banks demands more attention to improve. Overall, all factors demands greater attention to improve as survival factors in the changing environment of service sector. On the other way it is also reveals that from above table t-test shows their significance value at 5% less than 0.05 for all dimension of service quality in three categories of bank .Therefore there is perception difference on service quality for different bank customers.

Interpretations: From the above analysis, gap index of service quality among the five dimensions, three dimensions of service quality like tangibility, assurance and responsiveness are shown in poor category of the banks. It is also seen that service quality of nationalised banks is much lower from the expectations level of customers, which shows total dissatisfaction among the customers. The only way to survive is to provide services according to customer needs. Delivering quality services is the best possible strategy to gain success in competitive environment.

Factors affecting customer's satisfaction and dissatisfaction of service quality

The study aimed at bringing out the service quality gaps perceived by customer regarding the services provided by various Banks in India. These gaps were measured on various dimensions of services quality as given in the servqual tool developed by Parasuraman et.al.
Zeithami and Berry (1985, 1988) advanced and operationalized services quality as a difference between customer expectations of what they want and their perceptions of what they get. Based on this conceptualization and operationalization, a service quality measurement scale called SERVQUAL was proposed. Under the rule of Servqual the larger the gap score is, the more is dissatisfaction-Parsuraman (1988).

Analysis
It is seen from above fig. The gap score is the difference between the mean score of perceptions and mean score of expectation. We observed in case of nationalised bank that Tangibility gap is higher (1.76) followed by Empathy gap (1.63) responsiveness gap (1.43), reliability gap (1.39) and least gap assurance (1.14) gap. On the other hand in State bank of India there are responsiveness gap is highest gap (1.27) followed by empathy (1.04), assurance (.80), reliability (.75) and least gap on tangibility gap (0.62). But in case of private sector banks it is observed that assurance gap is higher (1.03) followed by empathy gap (.80), tangibility gap (.77), reliability gap (.77) and least gap on responsibility gap (0.17).

Interpretation: From the above analysis it is interpret that respondent of private sector banks are more satisfied than other bank. In private sector banks, services are up to expectation of respondents. As far as state bank of India respondents are more or less satisfied regarding banking service but nationalised bank group fail to provide best quality service up to expectation of customer of bank. The Tangibility dimension (up to date equipment, branch location, employees dressing, printing materials and visually appealing layout) holds a least Servqual gap between the customers’ expectations and perceptions in state bank of India other than nationalised bank and private sector bank. It is very oblivious that irrespective type of bank, the gap between the customer expectations and Perception on the responsiveness dimensions (information to innovative product and service, prompt service to customer, willing to help customer and response to customer request) is the highest other than private sector bank. The above analysis shows that all the dimension of service quality, banks are far behind from the expectation than the customer requirement. However, the gap score on reliability, assurance and empathy dimension seems to be more or less the same. It is advisable that the banks should focus more on responsiveness dimension to win the customers in State bank of India and nationalised bank. Banks also have to look into aspects like assurance, and empathy in delivering their services. On the other hand Nationalised banks should focus more on all dimensions of service quality dimensions to win the customer satisfaction.

Fig.1: Gap score on Service Quality Dimension

Source: Data Computed
Multiple Regression Analysis

To measure the factors affecting satisfying service quality, multiple regression analysis tools was applied and also includes a regression model to test the hypotheses. Five extracted dimensions were taken as independent variables against overall satisfaction of the customers as dependent variable in a multiple regression model. For all the hypothesis of the study below hypothesis test was used at 95% confidence interval.

From table 2 it has been seen that in case of State Bank of India, R value is 0.998. Therefore, R value (.998) for the overall service quality dimension namely tangibility, reliability, responsiveness, Assurance and empathy suggested that there is a strong effect of these five independent variables on customer satisfaction. From the table 2- it can also be observed that the coefficient of determination i.e. the R-square ($R^2$) value is .996, which representing that 99.6% variation of the dependent variable (Average Customer Satisfaction) is due to the independent variables (Service Quality), which in fact, is a strong explanatory power of regression.

In case of Nationalised Bank of India, R value is 0.998. Therefore, R value (.995) for the overall service quality dimension namely tangibility, reliability, responsiveness. Assurance and empathy suggested that there is a strong effect of these five independent variables on customer satisfaction. From the table 2- it can also observed that the coefficient of determination i.e. the R-square ($R^2$) value is .990, which representing that 99.0% variation of the dependent variable (Average Customer Satisfaction) is due to the independent variables (Service Quality), which in fact, is a strong explanatory power of regression.

On the other hand Private sector Bank, R value is 0.997. Therefore, R value (.993) for the overall service quality dimension namely tangibility, reliability, responsiveness. Assurance and empathy suggested that there is a strong effect of these five independent variables on customer satisfaction. From the table 2- it can also observed that the coefficient of determination i.e. the R-square ($R^2$) value is .993, which representing that 99.0% variation of the dependent variable (Average Customer Satisfaction) is due to the independent variables (Service Quality), which in fact, is a strong explanatory power of regression.

From the table 4, it is identify that in case of State Bank of India, the value of F- statistics 5.154 and is significant is the level of significance is less than 5%(p).This indicates that overall model was reasonable fit and there was statistically significant association between service quality dimensions and customer satisfaction. Additionally, this also indicated that the null hypothesis is rejected and alternative hypothesis is accepted. Hence it can be concluded that service quality dimensions have significant impact on customer satisfaction of State Bank of India.

In case of Nationalised Bank, the value of F-statistics 4.070 and is significant is the level of significance is less than 5%(p).This indicates that overall model was reasonable fit and there was statistically significant association between service quality dimensions and customer satisfaction. Additionally, this also indicated that the null hypothesis is rejected and alternative hypothesis is accepted. Hence it can be concluded that service quality dimensions have significant impact on customer satisfaction of Nationalised Bank.

On the other hand, the value of F-statistics 1.717 and is significant is the level of significance is less than 5%(p).This indicates that overall model was reasonable fit and there was statistically significant association between service quality dimensions and customer satisfaction. Additionally, this also indicated that the null hypothesis is rejected and alternative hypothesis is accepted. Hence it can be concluded that service quality dimensions have significant impact on customer satisfaction of Private sector Bank.

It is revels from table 2 that, Unstandardized coefficient indicates how much dependent variable varies with an independent variable, when all other independent variables are held constant. The beta coefficient indicates that how and to what extent Servqual dimensions such as tangibility, reliability, responsiveness, assurance and empathy influence customer's satisfaction of bank. It has been found that in case of, State bank of India responsiveness (beta= .333, t=31.047, p<.001) have the highest influenced or significant customer satisfaction. Whereas, tangibility (beta=.233, t=11.144, p<.001., reliability (beta=.218, t=23.048, p<0.001), assurance (beta=.220, t=20.994, p<.001) and) empathy (beta=.235, t=27.284, p<.001, have a relatively lower impact on customer satisfaction of a bank. In case of Nationalised Bank, responsiveness (beta= .329, t=34.657,
Factors Affecting on Service Quality of Banks and Customer Satisfaction: A Study with Special Reference to Jorhat District of Assam

Raju Roy

p<.001), empathy (beta=.283, t=32.307, p<.001) whereas, have the highest influenced or significant customer satisfaction of a bank. Whereas, tangibility (beta=.254, t=27.641, p<.001), reliability (beta=.216, t=23.321, p<.001) and assurance (beta=.240, t=23.058, p<.001) and, have a relatively lower impact on customer satisfaction of a bank. In case of Private sector bank, tangibility (beta=.322, t=25.200, p<.001), assurance (beta=.313, t=19.180, p<.001), and responsiveness (beta=.310, t=24.183, p<.001), p<.001 whereas, have the highest influenced or significant customer satisfaction of a bank. Whereas, reliability (beta=.233, t=15.021, p<.001) and empathy (beta=.231, t=17.348, p<.001) and have a relatively lower impact on customer satisfaction of a bank.

CONCLUSION

The research paper concluded that the service quality Private Sector banks is the highest service quality among the three types of banks where nationalised bank of India failure to fulfil up to expectation of respondent. By analysis, gap index of service quality regarding five factor especially tangibility, assurance and responsiveness is poor in three category of banks namely State bank of India, Nationalised bank and private sector banks but nationalised banks draw an attention because the service quality is much lower from the expectations level of customers, which shows total dissatisfaction among the customers. The only way to survive is to provide services according to customer needs. Delivering quality services is the best possible strategy to gain success in competitive environment. On the other hand bank wise varying the dimension of service quality affect in customer satisfaction, responsiveness gap is higher in State bank of India, Tangibility gap in nationalised banks and assurance in case of private banks which indicates that respondents are dissatisfied due to service quality provided by bank but tangibility gap is lower in State banks of India, Assurance in case of nationalised bank and Reliability of Private bank indicates that the respondents are satisfied since satisfactory service quality of bank. The overall study shows that customer’s satisfaction is affected by the dimensions of service quality as it is proved by regression model.

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Table 1: Reliability analysis

<table>
<thead>
<tr>
<th>Service Quality evaluation</th>
<th>No. of items</th>
<th>SBI</th>
<th>NB</th>
<th>PSB</th>
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<tr>
<td></td>
<td></td>
<td>Cronbach’s alpha</td>
<td>Cronbach’s alpha</td>
<td>Cronbach’s alpha</td>
</tr>
<tr>
<td>Expectation Level</td>
<td>22</td>
<td>.852</td>
<td>.569</td>
<td>.768</td>
</tr>
<tr>
<td>Perceptions level</td>
<td>22</td>
<td>.906</td>
<td>.836</td>
<td>.816</td>
</tr>
</tbody>
</table>

Source: Data computed

Table 2: Group Wise Service Qualities of Bank

<table>
<thead>
<tr>
<th>Bank Group</th>
<th>Dimensions</th>
<th>Perceptions’ Mean</th>
<th>Expectations’ Mean</th>
<th>Gap Index</th>
<th>T-test</th>
<th>Sig.</th>
<th>Gap Based Ranking</th>
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<tr>
<td>SBI</td>
<td>Tangibility</td>
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<td>4.4</td>
<td>116.71</td>
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<tr>
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<td>122.32</td>
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<tr>
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<td>Empathy</td>
<td>3.07</td>
<td>4.11</td>
<td>133.88</td>
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<td>37.13</td>
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<td>Assurance</td>
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<td>Empathy</td>
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<td>.000</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td>Empathy</td>
<td>3.65</td>
<td>4.45</td>
<td>121.92</td>
<td>10.96</td>
<td>.000</td>
<td>II</td>
</tr>
</tbody>
</table>

Source: Computed Primary Data

Table 3: Model Summary

<table>
<thead>
<tr>
<th>Name of the bank</th>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>Change Statistics df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBI</td>
<td>1</td>
<td>.998</td>
<td>.996</td>
<td>.996</td>
<td>.18626</td>
<td>.996</td>
<td>5154.282</td>
<td>5</td>
<td>100</td>
<td>.000</td>
</tr>
<tr>
<td>NB</td>
<td>1</td>
<td>.995</td>
<td>.990</td>
<td>.990</td>
<td>.24381</td>
<td>.990</td>
<td>4070.371</td>
<td>5</td>
<td>207</td>
<td>.000</td>
</tr>
<tr>
<td>PB</td>
<td>1</td>
<td>.997</td>
<td>.993</td>
<td>.993</td>
<td>.16179</td>
<td>.993</td>
<td>1717.346</td>
<td>5</td>
<td>59</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Data Computed.
Predictor: (Constant), Tangibility, reliability, responsiveness, assurance and empathy.
## Table 4: ANOVA

<table>
<thead>
<tr>
<th>Name of Bank</th>
<th>Model</th>
<th>Sum of Square</th>
<th>df</th>
<th>Mean Score</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBI</td>
<td>Regression</td>
<td>894.081</td>
<td>5</td>
<td>178.816</td>
<td>5.154</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>3.469</td>
<td>100</td>
<td>.035</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>897.551</td>
<td>105</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NB</td>
<td>Regression</td>
<td>1209.803</td>
<td>5</td>
<td>241.961</td>
<td>4.070</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>12.305</td>
<td>207</td>
<td>.059</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1222.303</td>
<td>212</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSB</td>
<td>Regression</td>
<td>224.758</td>
<td>5</td>
<td>44.952</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>1.544</td>
<td>59</td>
<td>.026</td>
<td>1.717</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>226.303</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Predictors: (Constant) EMP, TAN, REL, RES, and ASS.
Dependent Variables: Avg. Satisfaction.

## Table 5: Coefficient

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficient</th>
<th>Standardized Coefficient Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>S.E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBI 1</td>
<td>(Constant) .094 .133</td>
<td>.705 .483</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tangibility .243 .008 .233</td>
<td>31.144 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reliability .194 .008 .218</td>
<td>23.048 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Responsiveness .268 .009 .333</td>
<td>31.047 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assurance .241 .011 .220</td>
<td>20.994 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Empathy .244 .009 .235</td>
<td>27.284 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NB 1</td>
<td>(Constant) .140 .110</td>
<td>1.270 .206</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tangibility .249 .009 .254</td>
<td>27.641 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reliability .191 .008 .216</td>
<td>23.321 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Responsiveness .265 .008 .329</td>
<td>34.657 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assurance .228 .010 .240</td>
<td>23.058 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Empathy .259 .008 .283</td>
<td>32.307 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSB 1</td>
<td>(Constant) .373 .253</td>
<td>1.471 .146</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tangibility .233 .009 .322</td>
<td>25.200 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reliability .213 .014 .233</td>
<td>15.021 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Responsiveness .291 .012 .310</td>
<td>24.831 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assurance .240 .013 .313</td>
<td>19.180 .000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Empathy .190 .001 .231</td>
<td>17.348 .000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Average Customer satisfaction
An Application Study of Customer Experience Model
Dr. Ashish Sharma*  
Amit Philora**

ABSTRACT
Customer experience is not a new phenomenon in India. We translate experience as anubhav in Hindi which describe the greater emphasis on its working. In India whenever any middle class is going to buy luxury product they take consultation from family friends and relative. The best known person is most trusted for any middle class customer as he can watch and experience physically before taking a buying decision. The experience has been a key of success or failure both if it would not be conceptualized or strategized on time. The Customer experience can be a provider of economic value as well as managerial learning. The Toyota Company is a fine example of this. The customer not only shares an experience but share learning, personality and attitude in this form. Social Environment, Service interface, Retail Atmosphere, Assessment and Price The present paper will examine an application of variables in buying situations of various luxury products. The preliminary statistical and multivariable analysis tools are applied in this regard. Keywords: Learning, Attitude, Retail Atmosphere, Assessment, Price, Social Environment

INTRODUCTION
Loyal customers are the best base for survival and grateful in business, the basic understanding can be maintained that satisfaction will automatically lead to the retention and profitability. The competitive differentiation will be main driver of marketing for surviving so the customer experience management will lend to achieve this goal. Experience can be mater furt for the preparation large chunk of loyal customers. The customer experience directly affects the cognitive aspect of customer.

Customer experience also work for the description of lea internal and Subjective response and emotions attached with the brands. The perceptual aspects also play an important role. More and more companies have understood an importance of Customer Experience. Which they present with their service offerings. The popularity of the concept has also compelled traditional companies to focus on Customer Experience for value addition.

Customer Experience Management (CEM) is now working as marketing strategy for winning success. The concept has become an important tool for understanding the purchaser’s behaviour((Addis& Holbrook, 2001). Marketing and consumer behaviour experts have defined it in different perspectives. Consumer behaviour has interpreted it as a stimuli linked with product or service (Holbrook and Hirschman). Marketing experts have defined it as an interaction situation between service providers and customers (Caru & Cova, 2003). Customer experience has also possessed a dimension called internal and subjective response (Meyer and Schwager).

Components of CUSTOMER EXPERIENCE
The following are the components of CUSTOMER EXPERIENCE
- People
- Product
- Process
- Policy

The role of people may bring following issues in to consideration
- Strategic insights
- Loyalty drivers
- Location Preferences
- Brand advocacy by Customers and Employees

* Dr. Ashish Sharma, Sr. Lecturer, University Institute of Management, R.D. University, Jabapur and  
** Amit Philora, Research Scholar, A.P.S. University, Rewa (M.P)
The role of product can also be very important as per following model

Product Manager sit in the centre of many conversations

Reproduced from www.allankelly.net/static/writing/OnManagement/OnMngm5-Product by Allan Kelly

The role of process also plays an important role for generation of customer value. After the understanding of customer experience the process map preparation is very important (Grant, 2007).

The policies may be the creation of end result of customer experience management.

Conceptual Framework: Verhoef and Leeflang (2009) has proposed following model

Social environment
(a) Reference group
(b) Reviews
(c) Tribes
(d) Codestruction
(e) Service Personnel

Service Interface
(a) Service person
(b) Technology
(c) Customization

Retail Atmosphere
(a) Design
(b) Scents
(c) Temperature
(d) Music

Assortment
(a) Variety
(b) Uniqueness
(c) Quality

Price
a. Loyalty Programs
b. Promotions  
c. Situational Moderators  
d. Type of store  
e. Location  
f. Culture  
g. Economic  
h. Climate  
i. Season  
j. Competition/ Entrance  
k. Consumer Moderators  
l. Goals: experiential  
m. Risk orientation  
n. Socio-demographic  
o. Consumer attitude  
(Price sensitivity, involvement, innovativeness)  

This model will be applied through appropriate research Process  

Review of Literature  
Schmitt (2010) has described CEM as visionary approach. Puccinelli, (2009) has proved that CEM can increased retail performance. Meyer and Schwager (2007) has presented the difference between customer experience and customer relationship. Palmer (2010) has given the description of customer experience as an interpersonal relationship with service and brand and also presented the conceptual validity of customer experience concept. Gentile and Noci (2007) has described the role of customer experience in successful launching of any offer  

The review of literature has given the existence of the paper topic and gaps which can be covered in the proposed paper.  

RESEARCH OBJECTIVES  
This paper will be for following objectives  
- To apply the factors of PC Verhoef model which are responsible for the customer purchase decision in the category of Luxury products  
- To prepare the qualitative profile of these factors as they may be operational for different strata of the society and customer groups  

RESEARCH METHODOLOGY  

Research Philosophy  
The option for selection of research philosophy is an important. Proper research Philosophy works for the whole research work. Research Philosophy is here for identifying inherent features of consumer influence through selected factors.  

Research Approach  
The approach selected for this research is inductive as it is based on the data collected through customers and based on the response’s interpretation emerged factors.  

Research Design and Strategy  
The research design is the whole structure of the research. It gives the entire path for the conduct of research. Here both qualitative and exploratory research design has been selected. To execute the purpose of exploratory research three stages will be launched as follows  
- Factors exploration  
- Qualitative research design  

Research Method  
A research method for exploratory design was focus group and Depth Interview with customers at various Customers buying experiences on buying of Luxury Product.  
The factor Analysis method was applied at this stage. The researchers were contacted at different malls, cinema houses and other public places of Jabalpur City. Some variable selected for exploratory stage and some selected for qualitative research stage. The basis of selection was nature of variables in terms of continuous and categorical aspect.  
The researcher has worked on 30 customers where the qualitative research design has applied. Phenomenological and Ethnography Research Design has been applied. The methods which have been employed here are -  
- Interactive, interviewing  
- Observations
The respondents have been given the list of following variables:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Store</td>
<td>Format</td>
</tr>
<tr>
<td>Location</td>
<td>Convenience</td>
</tr>
<tr>
<td>Culture</td>
<td>Country &amp; community specific</td>
</tr>
<tr>
<td>Economic climate</td>
<td>Economic class</td>
</tr>
<tr>
<td>Season</td>
<td>Opportunity to buy</td>
</tr>
<tr>
<td>Competition</td>
<td>Brand choices</td>
</tr>
<tr>
<td>Goals Experience</td>
<td>Clarity on buying</td>
</tr>
<tr>
<td>Task orientation</td>
<td>Planned or impulse</td>
</tr>
<tr>
<td>Socio Demographic</td>
<td>Professional status</td>
</tr>
<tr>
<td>Consumer Attitude</td>
<td>Favorite</td>
</tr>
</tbody>
</table>

The researchers were contacted at different malls, cinema houses and other public places of Jabalpur City.

**SAMPLING I STAGE**

**Factor Analysis stage**

**Demographic Profile at a glance (N=250)**

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>150</td>
<td>60</td>
</tr>
<tr>
<td>Female</td>
<td>100</td>
<td>40</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>31-50</td>
<td>100</td>
<td>40</td>
</tr>
<tr>
<td>Over 50</td>
<td>100</td>
<td>32</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>160</td>
<td>64</td>
</tr>
<tr>
<td>Married</td>
<td>90</td>
<td>36</td>
</tr>
<tr>
<td><strong>Income (Annual)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 5 Lakh</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>5-10 Lakh</td>
<td>30</td>
<td>12</td>
</tr>
<tr>
<td>10-15 Lakh</td>
<td>200</td>
<td>80</td>
</tr>
<tr>
<td>Students</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Professionals</td>
<td>150</td>
<td>60</td>
</tr>
<tr>
<td>Self Employed</td>
<td>90</td>
<td>36</td>
</tr>
</tbody>
</table>

**SAMPLING II STAGE**

**Qualitative research Profile**

**DEMOGRAPHIC PROFILE AT A GLANCE (N=30)**

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>20</td>
<td>66</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>34</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td>10</td>
<td>33</td>
</tr>
<tr>
<td>31-50</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>Over 50</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>Married</td>
<td>18</td>
<td>60</td>
</tr>
<tr>
<td><strong>Income (Annual)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 5 Lakh</td>
<td>20</td>
<td>66</td>
</tr>
<tr>
<td>5-10 Lakh</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>10-15 Lakh</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Students</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>Professionals</td>
<td>10</td>
<td>33</td>
</tr>
<tr>
<td>Self Employed</td>
<td>15</td>
<td>17</td>
</tr>
</tbody>
</table>

**ANALYSIS AND FINDINGS**

(a) Factor analysis is applied for the selection of the final responsible factors of purchasing under the influence of store ambience. The variables selected for factor analysis are once again presented here i.e. (1) Reference group Reviews

(b) Tribes

(c) Service Personnel

(d) Service person

(e) Technology

(f) Customization

(g) Design

(h) Scents

(i) Temperature

(j) Music

(k) Loyalty Programs

(l) Promotions
2. The result of factor analysis is as follows:

**KMO AND BARTLETT’S TEST**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .570  
Bartlett's Test of Sphericity  

<table>
<thead>
<tr>
<th>Approx. Chi-Square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>203.605</td>
<td>45</td>
<td>.000</td>
</tr>
</tbody>
</table>

Measure of Sampling Adequacy is .570 and Bartlett's Test of Sphericity is 203.605. These two are the indicators about the strength of Factor analysis. KMO is above 0.5 which is satisfactory in itself.

**Presentation of Factors**—After employing Factor loadings in Varimax method the following details are here:

<table>
<thead>
<tr>
<th>Factors</th>
<th>Variables Included</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Social environment</td>
<td>Reference group Reviews Tribes Codestruction Service Personnel</td>
<td>May change with time</td>
</tr>
<tr>
<td>2. Service Interface</td>
<td>Service person Technology Customization</td>
<td>Customer friendly behaviour required</td>
</tr>
<tr>
<td>3. Retail Atmosphere</td>
<td>Design Scents Temperature Music</td>
<td>Determining factor</td>
</tr>
<tr>
<td>4. Assortment</td>
<td>Variety Uniqueness Quality</td>
<td>Strategic factor</td>
</tr>
<tr>
<td>Price</td>
<td>Loyalty Programs Promotions</td>
<td>Economy decide the sensitivity</td>
</tr>
</tbody>
</table>

The following data has emerged from respondents:

**Type of Store**

<table>
<thead>
<tr>
<th>Important</th>
<th>Unimportant</th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Selection of store plays an important role.

**Location**

<table>
<thead>
<tr>
<th>Considerable factor</th>
<th>Sometime only</th>
<th>Not a factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>20%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Location plays as an important experience factor.

**Culture**

<table>
<thead>
<tr>
<th>Important factor</th>
<th>Unimportant factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>80%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Majority approves culture as important experience measure.

**Economic factor**

<table>
<thead>
<tr>
<th>Important factor</th>
<th>Unimportant factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>30%</td>
</tr>
</tbody>
</table>

The economic aspect plays an important role for experience providence.

**Competition**

<table>
<thead>
<tr>
<th>Impact on brand decision</th>
<th>No impact on brand decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>30%</td>
<td>70%</td>
</tr>
</tbody>
</table>

Customer may overlook the brand decision on many occasions.

**Goals experiences**

<table>
<thead>
<tr>
<th>Same brand and same store</th>
<th>Same brand and different store</th>
<th>Different brand same store</th>
<th>Different brand and different store</th>
</tr>
</thead>
<tbody>
<tr>
<td>40%</td>
<td>20%</td>
<td>30%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Same brand and same store in majority work as major goal achiever for customer.

**Task Orientation**

<table>
<thead>
<tr>
<th>Proper analysis of survey</th>
<th>Others suggestion</th>
<th>No decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>30%</td>
<td>20%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Customer presents an experience on the basis of survey which work as touch point for him/her.

**Socio-demographic decision**

<table>
<thead>
<tr>
<th>Some times</th>
<th>Nonissue</th>
<th>Always work</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>60%</td>
<td>20%</td>
</tr>
</tbody>
</table>

This was not a major issue for the people.

**Consumer attitude**

<table>
<thead>
<tr>
<th>Previous experience</th>
<th>Ad effect</th>
<th>Always work</th>
</tr>
</thead>
<tbody>
<tr>
<td>40%</td>
<td>30%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Previous attitude always carry till next purchase.

Source: Field resource

**SUGGESTIONS**

1. Institutional framework for customer experience data and insight.
2. Continuous market research in qualitative manner.
3. Customer club concept and loyalty programme should be restructured.
4. Cultural input should be assessed.
5. The customer meet with brand experience could be organized at retail level.
6. Flexibility in product design could be accepted.

CONCLUSION
The study identified location, Economic limitations & culture, Economic climate & Task orientation an important factors for better customs experience.

REFERENCE
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Identify The Need for Developing A New Service Quality Model in Today’s Scenario: A Review of Service Quality Models

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ABSTRACT

The service industries are mostly customer driven and their survival in the competitive environment largely depends on quality of the services provided by them. Due to the increasing competition in the service sector, customer service is an important part of the organizational growth. The key lies in improving the service selectively, paying attention to more critical attributes as a part of improved customer satisfaction. A large number of research studies for service quality take place in the context of developing countries. There are various models suggested by many authors in relation to service quality but no model take all attributes of service quality. The main objective of this paper is to critically appraise various service quality models and identify issues for future research based on the critical analysis of literature. This study aims at evaluating the different service quality models given by different authors and identifies the need for developing a new model in today’s scenario. This study examines 19 models of service quality. Findings of the study explore new model and direction in service quality improvement for different sectors. Data for this study is collected from secondary sources. The empirical findings not only priorities different parameters of service quality but also provide guidelines to focus on the other parameters on which the marketer need to improve.

Key Words: Competitive Environment, Service Industries, Service Quality Models, India.

INTRODUCTION

During the past few decades service quality has become a major area of attention to practitioners, managers and researchers owing to its strong impact on business performance, lower costs, customer satisfaction, customer loyalty and profitability (Leonard and Sasser, 1982; Cronin and Taylor, 1992; Gammie, 1992; Hallowell, 1996; Chang and Chen, 1998; Gummesson, 1998; Lasseretai, 2000; Silvestro and Cross, 2000; Newman, 2001; Sureshchander et al., 2002; Guru, 2003 etc.). There has been a continued research on the definition, modeling, measurement, data collection procedure, data analysis etc., issues of service quality, leading development of sound base for the researchers. This documented knowledge base through several studies on the subject can be of great use to researchers and practitioners in providing a direction on how to explore/modify the existing service quality concepts with the changing world scenario (shift from conventional personalized services to web enabled services). In this context model gains specific importance as it not only help in learning the factors associated with it but also will provide a direction for improvements.

A conceptual model attempts to show the relationships that exist between silent variables (Ghobadian et al, 1994). It is a simplified description of the actual situations. It is said that conceptual models in service quality enable management to identify quality problems and thus help in planning for the launch of a quality improvement program thereby improving the efficiency, profitability and overall performance.

This paper makes an attempt to study various service quality models covering the aspects of conventional services to web interacted services. The primary aim of these models is to enable the management to understand and enhance the quality of the organization and its offering. Nineteen conceptual service quality models reported during the period (1984-2003) are reviewed in this paper. Each of them is representative of a different point of view about services.

NEED OF THE STUDY

Today globalization and liberalization are affecting economies of not only developing but also developed countries. The focus areas for organizations are also changing from profit to

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maximizing profits through increased customer satisfaction. The pressures of competition are forcing the organizations to not only look on the processes but also on the way they are delivered. During past two decades business scenario has changed drastically.

Some of the key changes that have taken place in the business are:
- Greater sharing of information with all connected links and customers.
- Greater emphasis on organizational and process flexibility.
- Necessity to coordinate processes across many sites.
- Competitive pressure to introduce new service/products more quickly.
- Integrated customer driven processes.
- Quick response to customers needs.
- Worldwide relationships between various trade partners, suppliers etc.
- Easily accessible information through internet.
- Flexible and efficient service/product customization.

Owing to the factors like opening up of markets, increase in use of IT, increased customer knowledge and awareness etc., it becomes a must to deliver the services better than its competitor at agreed price. In this context, the subject of service quality needs a fresh understanding in the current business scenario. This study can help to identify the research gaps and thus attempts to provide benefits to practicing managers and researchers.

FRAME WORK OF THE STUDY
The subject of service quality is very rich in context of definitions, models and measurement issue. The following factors seem to be suitable for comparative evaluations of the models:
- Identification of factors affecting service quality.
- Suitability for variety of services in consideration.
- Directions for improvement in service quality.
- Suitability to develop a link for measurement of customer satisfaction.
- Flexible enough for modifications as per the changes in the environment/conditions.

- Suggests suitable measures for improvements of service quality both upstream and downstream the organization in focus.
- Identifies future needs (infrastructure, resources) and thus provide help in planning.

With these issues as focus this present study is undertaken to understand the service quality models in the above light.

SERVICE QUALITY MODELS
The present study is an attempt to review 19 service models in the light of the changed business scenario and analyze the models for the suitability/need for modification in the current context. The models are presented using a standard structure, i.e. covering brief discussion and the major observations on the models. The next section covers the evaluation of these models for above parameters. The brief discussions on the models are as under:

SQ1. Technical and functional quality model (Gronroos, 1984)
A firm in order to compete successfully must have an understanding of consumer perception of the quality and the way service quality is influenced. Managing perceived service quality means that the firm has to match the expected service and perceived service to each other so that consumer satisfaction is achieved. The researcher identified three components of service quality, namely: technical quality; functional quality; and image:

(1) Technical quality is the quality of what consumer actually receives as a result of his/her interaction with the service firm and is important to him/her and to his/her evaluation of the quality of service.

(2) Functional quality is how he/she gets the technical outcome. This is important to him and
Image is very important to service firms and this can be expected to build up mainly by technical and functional quality of service including the other factors (tradition, ideology, word of mouth, pricing and public relations).

SQ2: GAP model (Parasuraman et al., 1985)

Parasuraman et al (1985) proposed that service quality is a function of the differences between expectation and performance along the quality dimensions. They developed a service quality model based on gap analysis. The various gaps visualized in the model are:

**Gap 1**: Difference between consumers’ expectation and management’s perceptions of those expectations, i.e. not knowing what consumers expect.

**Gap 2**: Difference between management’s perceptions of consumer’s expectations and service quality specifications, i.e. improper service-quality standards.

**Gap 3**: Difference between service quality specifications and service actually delivered i.e. the service performance gap.

**Gap 4**: Difference between service delivery and the communications to consumers about service delivery, i.e. whether promises match delivery.

**Gap 5**: Difference between consumer’s expectation and perceived service. This gap depends on size and direction of the four gaps associated with the delivery of service quality on the marketers side.

According to this model, the service quality is a function of perception and expectations.

SQ3. Attribute service quality model (Haywood-Farmer, 1988)

This model states that a service organization has “high quality” if it meets customer preferences and expectations consistently. According to this, the separation of attributes into various groups is the first step towards the development of a service quality model. In general, services have three basic attributes: physical facilities and processes; people’s behavior; and professional judgment. Each attribute consists of several factors. The researcher tried to map different type of service settings as per degree of contact and interaction, degree of labour intensity and degree of service customization in to this model.

SQ4. Synthesized model of service quality (Brogowicz et al., 1990)

A service quality gap may exist even when a customer has not yet experienced the service but learned through word of mouth, advertising or through other media communications. Thus there is a need to incorporate potential customers’ perceptions of service quality offered as well as actual customers’ perceptions of service quality experienced. This model attempts to integrate traditional managerial framework, service design and operations and marketing activities. The purpose of this model is to identify the dimensions associated with service quality in a traditional managerial framework of planning, implementation and control. The synthesized model of service quality considers three factors, viz. company image, external influences and traditional marketing activities as the factors influencing technical and functional quality expectations.

SQ5. Performance only model (Cronin and Taylor, 1992)

The researcher investigated the conceptualization and measurement of service quality and its relationship with consumer satisfaction and purchase intentions; they compared computed difference scores with perception to conclude that perceptions only are better predictor of service quality. They argued on the framework of Parasuraman et al (1985), with respect to conceptualization and measurement of service quality and developed performance only measurement of service quality called...
SERVPERF by illustrating that service quality is a form of consumer attitude and the performance only measure of service quality is an enhanced means of measuring service quality. They argued that SERVQUAL confounds satisfaction and attitude. They stated that service quality can be conceptualized as “similar to an attitude”, and can be operationalized by the adequacy-importance model. In particular, they maintained that Performance instead of “Performance-Expectation” determines service quality.

SQ6 Ideal value model of service quality (Mattsson, 1992)

The model argues for value approach to service quality, modeling it as an outcome of satisfaction process. This value-based model of service quality suggests the use of a perceived ideal standard against which the experience is compared. It shows that implicit negative disconfirmation on a pre-conscious value level, is then hypothesized to determine satisfaction on a “higher” attitude level. This negative disconfirmation is the major determinant of consumer satisfaction, more attention should be given to cognitive processes by which consumers’ service concepts are formed and changed.

SQ7. Evaluated performance and normed quality model (Teas, 1993)

According to the author the conventional disconfirmation model has conceptual, theoretical and measurement problems. He pointed out those following issues in the measurement of service quality, i.e. SERVQUAL (Parasuraman et al., 1988) as: conceptual definition ambiguity; theoretical justification of expectations in the measurement of service quality; the usefulness of the probability specification in the evaluated performance (EP) measurement; and link between service quality and consumer satisfaction/dissatisfaction.

SQ8. IT alignment model (Berkley and Gupta, 1994)

This model links the service and the information strategies of the organization. It describes the use of IT for improving service quality through a number of case studies from variety of sectors (banking, courier, and transportation, manufacturing and services industries). This model describes in detail where IT had been used or could be used to improve specific service quality dimensions including reliability, responsiveness, competence, access, communications, and security, understanding and knowing the customers. According to the model, it is important that service quality and information system (IS) strategies must be tightly coordinated and aligned. The model explains the process of aligning service and aligning strategies.

SQ9. Attribute and overall affect model (Dabholkar, 1996)

The attribute model is based on what consumers would expect from such option. It is based on cognitive approach to decision making, where consumers would use a compensatory process to evaluate attributes associated with the technology based self service option in order to form expectations of service quality. The overall affect model is based on the consumers’ feeling towards the use of technology. It is based on an affective approach to decision making where consumers would use overall predispositions to form expectation self service quality for a technology-based self-service option. In both the models expected service quality would influence intentions to use technology-based self-service option.

SQ10. Model of perceived service quality and satisfaction (Spreng and Mackoy, 1996)

This model attempts to enhance the understanding of the constructs perceived service quality and consumer satisfaction. This model is modification to Oliver’s model. The model highlights the effect of expectations, perceived performance desires, desired congruency and expectation disconfirmation on overall service quality and customer satisfaction. These are measured through set of ten attributes of advising (convenience in making an appointment, friendliness of the staff, advisor listened to my questions, the advisor provided accurate information, the knowledge of the advisor, the advice was consistent, advisor helped in long-range planning, the advisor helped in choosing the right courses for career, advisor was interested in personal life, and the offices were professional).
SQ11. PCP attribute model (Philip and Hazlett, 1997)

The researcher proposes a model that takes the form of a hierarchical structure – based on three main classes of attributes – pivotal, core and peripheral. According to the model, every service consists of three, overlapping, areas where the vast majority of the dimensions and concepts which have thus far been used to define service quality. These ranked levels are defined as – pivotal (outputs), core and peripheral (jointly representing inputs and processes). The pivotal attributes, located at the core, are considered collectively to be the single most determining influence on why the consumer decided to approach a particular organization and exert the greatest influence on the satisfaction levels. They are defined as the “end product” or “output” from the service encounter; in other words, what the consumer expects to achieve and receive, perhaps even “take away, when the service process is duly completed.

Core attributes, centered on the pivotal attributes, can best be described as the amalgamation of the people, processes and the service organizational structure through which consumers must interact and/or negotiate so that they can achieve/receive the pivotal attribute. Peripheral attributes which can be defined as the “incidental extras” or frills designed to add “roundness” to the service encounter and make the whole experience for the consumer a complete delight. When a consumer makes an evaluation of any service encounter, he is satisfied if the pivotal attributes are achieved, but as the service is used more frequently the core and peripheral attributes may began to gain importance.

SQ12. Retail service quality and perceived value model (Sweeney et al., 1997)

The influence of service quality on value and willingness to buy in a specific service encounters through two alternative models. Value can be defined as a comparison between what consumers get and what they give, suggesting that value is a comparison of benefits and sacrifices. (Zeithaml et al., 1988). Value construct used in this model is “value for money”.

Model 1: This model highlights that in addition to product quality and price perceptions, functional service quality and technical service quality perceptions both directly influence value perceptions.

Model 2: This model highlights that in addition functional service quality perceptions directly influence consumers’ willingness to buy. Functional service quality perceptions also influence technical service quality perceptions, which in turn influence product quality perceptions and neither of the two directly influence value perceptions.

On analysis, of modification indices for model 2 (being superior to model 1) it is possible to make significant improvement in this model by allowing technical service quality to influence perceived value directly.

SQ13. Service quality, customer value and customer satisfaction model (Oh, 1999)

The researcher proposed an integrative model of service quality, customer value and customer satisfaction. The proposed model focuses mainly on post purchase decision process. Arrows in the model indicate causal directions. The model incorporates key variables such as perceptions, service quality, consumer satisfaction, customer value and intentions to repurchase. The model provides evidence that customer value has a significant role in customer’s post-purchase decision-making process.

SQ14. Antecedents and mediator model (Dabholkar et al., 2000)

A comprehensive model of service quality includes an examination of its antecedents, consequences, and mediators to provide a deeper understanding of conceptual issues related to service quality. This model examines some conceptual issues in service quality as: the relevant factors related to service quality better conceived as components or antecedents and the relationship of customer satisfaction with behavioral intentions.

SQ15. Internal service quality model (Frost and Kumar, 2000)

The researcher has developed an internal service quality model based on the concept of GAP model (Parasuraman et al., 1985). The model evaluated the dimensions, and their relationships, that determine service quality among internal customers (front-line staff) and internal suppliers (support staff) within a large service organization.
The internal gap 1 shows the difference in support staff’s perception (internal supplier) of front-line staff’s expectation (internal customers). Internal gap 2 is the significant difference between service quality specifications and the service actually delivered resulting in an internal service performance gap. Internal gap 3 is the gap which focuses on the front-line staff (internal customers). The gap is based on the difference between front-line staff’s expectations and perceptions of support staff’s (internal supplier) service quality.

SQ16. Internal service quality DEA model (Soteriou and Stavrinides, 2000)

The researcher presented a service quality model that can be used to provide directions to a bank branch for optimal utilization of its resources. The model does not aim to develop the service quality measures, rather guides how such measures can be incorporated for service quality improvements. The model points out resources that are not properly utilized. The inputs to the model consist of two sets: consumable resources such as personnel, space, time etc. and the number of accounts in different categories. The output of the model is the level of service quality perceived by the personnel of the branch. The data envelope analysis (DEA) model compares branches on how well they transform these resources (inputs) to achieve their level of service quality (output) given the client base. The DEA model will identify under performers and suggest ways for their improvement. The input minimization DEA model will provide information on how much could the consumables resources be reduced while delivering the same level of service quality, while the output maximization DEA model will provide information on how much service quality can be improved using the same consumable resources.

SQ17. Internet banking model (Broderick and Vachirapornpuk, 2002)

One of the key challenges of the internet as a service delivery channel is how service firms can manage service quality as these remote formats bring significant change in customer interaction and behavior. This study proposes and tests a service quality model of internet banking. The research uses participant observation and narrative analysis of UK internet web site community to explore how internet banking customers perceive and elements of this model. In the context of internet, five key elements are treated as central influences on perceived service quality: They are: customer expectations of the service; the image and reputation of the service organization; aspects of the service setting; the actual service encounter; and customer participation.

SQ18. IT-based model (Zhu et al., 2002)

This model highlights the importance of information technology (IT)-based service options. Service providers are using IT to reduce costs and create value-added services for their customers. It proposes a service quality model that links customer perceived IT-based service options to traditional service dimensions. The model attempts to investigate the relationship between IT-based services and customers’ perceptions of service quality. The model focuses on the linkages among the service dimensions as measured by SERVQUAL, the constructs representing the IT-based service quality, preferences towards traditional services, experiences in using IT-based services, and perceived IT policies.

SQ19. Model of e-service quality (Santos, 2003)

This study proposes a conceptual model of e-service quality with its determinants. It is proposed that e-service quality have incubative (proper design of a web site, how technology is used to provide consumers with easy access, understanding and attractions of a web site) and active dimensions (good support, fast speed, and attentive maintenance that a web site can provide to its customers) for increasing hit rates, stickiness, and customer retention.

OBSERVATION & EVALUATION OF SERVICE QUALITY MODELS

Owing to the importance of service quality, there has been a systematic development of a variety of concepts and models.

- Gronroos (1984) (SQ1) observed that word-of-mouth (WOM) has a more substantial impact on potential customers than traditional marketing activities, and also highlighted the need for service quality research based on consumers’ views.
Later Parasuraman et al. (1985) (SQ2) modeled service quality as a gap between consumer and marketer sides at different levels, using WOM as a key contributor to the expected service. Later Parasuraman et al. (1988; 1991) developed and revised service quality measurement tool, SERVQUAL. This gap model and SERVQUAL as a base was used (Frost and Kumar, 2000) (SQ15), for internal service quality modeling.

The measurement of service quality through gap model and SERVQUAL was criticized by:

- Cronin and Taylor (1992) (SQ5) and Teas (1993) (SQ7) and they proposed SERVPERF (a service quality tool for measuring perceptions only) and EP (Evaluated Performance) model respectively. This was again criticized by Parasuraman et al. (1994), and further counter-acted by Cronin and Taylor (1994) and Teas (1994).

- Cronin and Taylor (1992) pointed out that service quality is an antecedent of consumer satisfaction, which has a significant on purchase intentions. This led to the development of model of perceived service quality and satisfaction (Spreng and Mackoy, 1996) (SQ10).

- Cronin and Taylor (1992) pointed out that consumers don’t always buy best quality service, they might instead purchase on the basis of their assessment of value of service. This highlighted the importance of “value” and thus acts as a motivating point for researchers to include/model value for improvement/understanding of service quality.

In this liberalized economy, to remain competitive, service providers are increasingly offering their customers IT-based service options. Service providers are using IT to reduce costs and create value-added services for their customers. Furey (1991) suggests that IT can help enhance service quality by increasing convenience, providing extra services, and collecting service performance information for management use.


It seems that practitioners required an approach to maximize service quality with available inputs, and this led to the development of DEA-based model (Soteriou and Stavrinides (2000) (SQ16).

From the review, it is clear that there does not seem to be a well-accepted conceptual definition and model of service quality nor there is any generally accepted operational definition of how to measure service quality. However majority of models and definitions support the view of evaluating service quality by comparing their service quality expectation with their perceptions of service quality they have experienced.

**Category A. Gap model / SERQUAL-based:**

The models under this category are those models, which are developed either using gap model or its modification as base or scale using SERVQUAL items or its modification for measurement of service quality.
The evaluation of the models as identifying their findings and weaknesses are presented:

<table>
<thead>
<tr>
<th>Model No. / Type</th>
<th>Key Findings / Applications</th>
<th>Weaknesses / Limitations</th>
</tr>
</thead>
</table>
2. Functional quality is more important than the technical quality. | 1. The model does not offer an explanation on how to measure functional and technical quality. |
| SQ2. Gap model | 1. The model is an analytical tool. It enables the management to identify systematically service quality gaps between a numbers of variables affecting the quality of the offering.  
2. This model is externally focused. It is capable of assisting the management to identify the relevant service quality factors from the viewpoint of the consumer. | 1. The model does not explain the clear measurement procedure for the measurement of gaps at different levels. |
| SQ3. Attribute service quality model | 1. This model provides a base of segregating service organization on three dimensions for better management of quality.  
2. The model has the potential to enhance understanding of the Concepts of service quality and help to guide about targeting towards the right customer segment.  
3. This model is useful both in the design stage and periodically as the service and possibly customer taste evolve. | 1. It does not offer the measurement of service quality.  
2. It does not offer a practical procedure capable of helping management to identify service quality problems or practical means of improving service quality. |
| SQ4. Synthesized model of service quality | 1. This model identifies variables that require systematic mgt. attention in planning & implementation controlling service--marketing strategies that minimize service quality gap. | 1. Needs empirical validation.  
2. Need to be reviewed for different type of service settings. |
| SQ5. Performance only model | 1. Service quality should be conceptualized and measured as an attitude.  
2. The performance-based SERVPERF is efficient in comparison with SERVQUAL, as it directly reduces the number of items by 50 per cent and the results are better.  
3. Service quality is an antecedent of consumer satisfaction and may have a better effect on purchase intentions than service quality. | 1. Need to be generalized for all types of service settings.  
2. Quantitative relationship between consumer satisfaction and Service quality need to be established. |
| SQ6. Ideal value model of service quality | 1. This model provides a new learning perspective on how an ideal standard can be formed and how it can be sustained mentally.  
2. The model highlights attention to the importance of negative disconfirmation experience as a determinant for satisfaction outcome. | 1. Fewer number of items used for value and customer satisfaction.  
2. Needs to be defined for all types of service settings. |
| SQ7. EP and NQ model | 1. The model raised a number of issues pertaining to conceptual and operational definitions of expectation and revised expectation.  
2. The criterion and construct validity of the EP model was higher than both the SERVQUAL and NQ model. | 1. This model was tested for limited sample size and for narrow service setting. |
| SQ8. IT alignment model | 1. This model describes how IT can be used to improve customer service along key service quality dimensions including reliability, responsiveness, competence, access, communication, security and understanding the customer.  
2. Allows managers to understand the commonly used technologies in their industry and determine appropriate technology suiting their requirements. | 1. It only highlights the impact of IT on service quality. The model does not offer a way to measure and monitor service quality.  
2. The model is silent about the level of IT use for particular Service settings. |
| SQ9. Attribute and overall affect model | 1. The attribute-based model is favored in forming the evaluations of service quality for technology-based self-service options.  
2. The overall affect model is also supported but it does | 1. Needs to be generalized for different self-service options.  
2. Effect of demographic variables, price, physical environment etc. is
not add further explanatory power to the attribute-based model.

SQ10. Model of perceived quality and satisfaction

1. This model shows that service quality and satisfaction are distinct and desires congruency does influence satisfaction.
2. A key determinant of service quality and customer satisfaction is meeting customer desires. Rising expectations have a positive effect on customer satisfaction perceptions of performance, but they also have a negative effect on satisfaction through disconfirmation.

SQ11. PCP attribute model

1. Provides a simple, effective and general framework of assessing Service quality for any service sector.
2. Highlights the area of improvements for service quality Depending on the frequency of encounter.
3. The dimensions to these three levels of attributes are individual sector-dependent and with reference to consumer.

SQ12. Retail service quality and perceived value

1. The technical service quality is an important contributor to product quality and value perceptions and hence influences willingness to buy.
2. Functional service quality has indirect influence on willingness to buy through product quality and value perception; however, it has influence on willingness to buy that is independent of product assessment (poor staff manners).

SQ13. Service quality, customer value and customer satisfaction model

1. The model can be used as a framework for understanding consumer decision process as well as evaluating company performance.
2. This model provides directions and targets for customer-oriented company efforts.

SQ14. Antecedents and mediator model

1. Consumers evaluate different factors related to the service but also form a separate overall evaluation of the service quality.
2. The antecedent’s model can provide complete understanding of service quality and how these evaluations are formed.
3. Customer satisfaction is a better predictor of behavioral intentions.
4. A strong mediating role was found, confirming that it is important to measure customer satisfaction separately from service quality when trying to determine customer evaluations of service.

SQ15. Internal service quality model

1. The perceptions and expectations of internal customers and internal suppliers play a major role in recognizing the level of internal service quality perceived.

SQ16. Internal service quality DEA model

1. Indicates the resources, which can be better utilized to produce higher service quality levels.

SQ17. Internet banking model

1. Implication for the management of quality in internet banking service arises in two areas a) within the service interface and b) with the management of increased customer role.
2. The level and nature of customer participation had the greatest impact on the quality of service experience and issues such as customers’ “zone of tolerance” and the degree of role understanding by customers and perceived service quality.

not considered.

1. The model does not highlight how the service quality is achieved and operationalized.
2. The model is weak in providing directions for improvements in service quality.

1. The model is lacking in providing general dimensions to three levels of attributes (Lacks empirical validation).

1. The model considers only one value construct, i.e. value for money.
2. Fewer number of items per construct is taken in this study.

1. Model needs to be generalized for different types of service Settings.
2. Model variables are measured through relatively fewer items.

1. Antecedents of customer satisfaction have not been explored.
2. The model measures behavioral intention rather than actual behavior.
3. Needs to be generalized for different service settings.

1. Need to be generalized for all types of internal environments.
2. Effect of changes in external environment on model is not considered.

1. Does not provide the measurement of service quality.
2. Model ignores other bank performance measures.

1. Not much empirical work carried out.
2. The model is based on the experience of one web site only, needs to be validated with other experiences
SQ18. IT-based model
1. IT-based services have a direct impact on the reliability, responsiveness and assurance dimensions and an indirect impact on customer satisfaction and perceived service quality.
2. IT can help service providers achieve higher level of customer satisfaction.
3. The customer evaluation of IT-based services is affected by preference towards traditional services, past experience in IT-based services and perceived IT policies.

SQ19. Model of e-service quality
1. It provides a better understanding of e-service quality and, therefore, to achieve high customer retention, customer satisfaction, and profitability.
2. This e-service quality model can be of assistance to all companies that engage e-commerce or plan to do so.

Category I: Relation between Various Attributes of Service
Quality of service is affected by and affects a number of variables such as value, attitude, expectations and aspirations etc. These variables may also guide purchasing behavior, financial performance etc. In this regard it may be interesting to develop a theoretical framework to establish clear linkages between various variables. Similarly, it needs to be explored if various attributes of service quality are independent.

Category II: Role of Technology Such as IT
Technology plays an important role in improving quality of service. IT initiatives such as EDI (electronic data interchange), POS (point of sales) information systems and systems such as ERP (enterprise resource planning) may act as an enabler for value enhancement. The following issues may need further attention:
- What type of information system architecture is needed for effective delivery of quality service?

Category III: Measurement Issues
It is interesting to study measurement-related issues. Often, the behavior and outcomes may be guided by the way quality of service is being measured. The following issues are important in this regard:
- How to quantify and measure quality of service?
- How to link quality of service and business performance? Is there any evidence to say that improved quality of service has enhanced financial performance of the organization?
- How does one benchmark on various dimensions of services?
<table>
<thead>
<tr>
<th>Model No. / Type</th>
<th>Category</th>
<th>Select research issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQ1. Technical and functional quality model</td>
<td>I</td>
<td>How technical and function quality influences a service delivered and how the customer perceives these dimensions?</td>
</tr>
<tr>
<td>SQ2. GAP model</td>
<td>III</td>
<td>How to measure the gaps at different levels using a standard measurement tool. What are the factors affecting? Whether these gaps differ from industry to industry?</td>
</tr>
<tr>
<td>SQ3. Attribute service quality model</td>
<td>III</td>
<td>How to measure service quality in a particular service encounter using this model. On what attributes it depends and how to determine relative importance of attributes for a service encounter?</td>
</tr>
<tr>
<td>SQ4. Synthesized model of service quality</td>
<td>I</td>
<td>What factors contribute to the information and feedback, design, implementation and communication gaps? How service managers can minimize the gaps through the performance of planning, implementation and control tasks?</td>
</tr>
<tr>
<td>SQ5. Performance only model</td>
<td>I</td>
<td>What is the role of value in the determination of a service? How value affects the purchase decision</td>
</tr>
<tr>
<td>SQ6. Ideal value model</td>
<td>I</td>
<td>What is the cognitive process by which consumer service are formed and changed?</td>
</tr>
<tr>
<td>SQ7. EP and NQ model</td>
<td>I</td>
<td>How to generalize the EP model results for all types of service settings, whether change in the type of service needs re-examination of model?</td>
</tr>
<tr>
<td>SQ8. IT alignment model</td>
<td>II</td>
<td>How IT can enhance customer satisfaction. Whether the investment in IT depends on competition, market growth and other similar factors. How much to invest and up to what level IT should be used?</td>
</tr>
<tr>
<td>SQ9. Attribute and overall affect model</td>
<td>II</td>
<td>What is the role of attitude and behavior towards using a technology on expectations of service quality?</td>
</tr>
<tr>
<td>SQ10. Model of perceived quality and satisfaction</td>
<td>I</td>
<td>How to determine the balance between positive and negative effect of expectations?</td>
</tr>
<tr>
<td>SQ11. PCP attribute model</td>
<td>III</td>
<td>What should be weighing of these levels of attributes? On what factors it depends. Whether this changes with the type of service settings?</td>
</tr>
<tr>
<td>SQ12. Retail service quality and perceived value</td>
<td>I</td>
<td>What is the impact of functional value, emotional value and social value on product quality, service quality, perceived price, value for money and willingness to buy?</td>
</tr>
<tr>
<td>SQ13. Service quality, customer value and customer satisfaction model</td>
<td>III</td>
<td>What are the measurement issues associated with perceived value and customer satisfaction? Whether the determinants of perceived value and customer satisfaction change with type of service setting?</td>
</tr>
<tr>
<td>SQ14. Antecedents and mediator model</td>
<td>I</td>
<td>What is the role of actual behavior and actual repurchase on predictive power of service quality and customer satisfaction evaluation? What are the antecedents of customer satisfaction, whether these are correlated with antecedents of service quality?</td>
</tr>
<tr>
<td>SQ15. Internal service quality model</td>
<td>III</td>
<td>Which of the SERVQUAL dimensions is most important in measurement of internal service quality? Whether responsiveness plays a bigger role than reliability for all types of service settings?</td>
</tr>
<tr>
<td>SQ16. Internal service quality DEA model</td>
<td>I</td>
<td>Can data envelope analysis be used as a tool to derive the linkage between service quality, profitability and operating efficiency? What will be impact on model of other performance measures included as output?</td>
</tr>
<tr>
<td>SQ17. Internet banking model</td>
<td>II</td>
<td>Whether the model can be applied to other internet service encounters. Whether the interrelation of entities will change with the change in demographic variables?</td>
</tr>
<tr>
<td>SQ 18: IT-based model</td>
<td>II &amp; III</td>
<td>How to measure service quality of IT-based transactions?</td>
</tr>
<tr>
<td>SQ19. Model of e-service quality</td>
<td>II &amp; III</td>
<td>What are the items of the determinants considered in the model and how to measure e-service quality? Whether the there will be change in the study with type of business (goods, different types of sites etc.)?</td>
</tr>
</tbody>
</table>

Notes: Category I: general relation between various attributes of service; Category II: role of technology such as IT; Category III: measurement issues
CONTRIBUTIONS AND CONCLUDING REMARKS

An attempt is made in this paper to review various service quality models. The models are summarized in above Tables. The models cover the domain from conventional personalized services to the internet-enabled services including the organizational and behavioral aspects. These models provide a useful framework for quality of service. It is further observed that the service quality outcome and measurement is dependent on type of service setting, situation, time, need, etc. factors. This further adds to the complexity of the subject. In addition to this even the customer’s expectations towards a particular service are also changing with respect to factors like time, increase in the number of encounters with a particular service, competitive environment, etc. These demands for a continuous effort to learn and validate, modify the existing concepts of service quality. The present paper is an attempt to enhance the understanding of the subject.

This review of models clearly highlighted the following research streams in this field:

- General Service quality model developed with different types of service encounters.
- Refinement of these models with the new situations.
- Modeling based on new concepts (derived out of weaknesses / leanings from the existing models).
- Considering new variables/situations with existing models and remodel / test the findings.

The review of these 19 service quality models highlighted various issues, debates, strengths and weaknesses pertaining to the models. It is noted that the models have a focus on only one link (i.e. either marketer to consumer or front-line staff to supporting staff). On other side, researchers (Caruana and Pitt, 1997; Reynoso and Moores, 1995 etc.) have continuously pointed out the positive correlation of internal service quality (considering all the processes and operations associated in delivery of product or service) with business performance and the service quality delivered to the customer (including the distribution, marketing and other support functions). From the study of these models, it appears that the key ingredients to service quality improvements are:

- Clear market and customer focus.
- Motivated staff.
- Clear understanding of concepts of service quality and factors affecting the same.
- Effective measurement and feedback system.
- Effective implementation system.
- Efficient customer care system.

Researchers and practitioners view the subject in the context of service under consideration. It is clear from the review that none of the models currently satisfies the set framework, this clearly highlights the need for further research. This review highlighted some of the research agenda from the review of service quality models.

REFERENCES


Identify The Need for Developing A New Service Quality Model in Today’s Scenario: A Review of Service Quality Models

Ankit Agarwal

Gulshan Kumar

The Impact of Training and Development Programs on Employee’s Productivity: With reference to Manufacturing Firms of Mathura Region

Dr. Mini Jain¹
Parul Garg²

ABSTRACT
Training has become the buzz word in the dynamic competitive market environment. It is a very vital aspect now days in making the organization profitable. Human resources differentiate a vast organization from a superior one. Organizations spend an enormous amount of time and money on training and development to directly enhance the human capital of the firm and to achieve both short and long term benefits. This study presents a literature review on the significant of training and development on employee productivity. Human capital tends to become complete, and therefore creating the need to acclimatize to the permanent and continuous learning and updating of the skill and knowledge precious, due to the organizational, technological and social dynamics. Hence, in order for organizations or manufacturing firms to accomplish best returns from their investment, there is crucial need to efficiently manage training and development programs. Though, the most essential asset of every organization under rigid and vibrant competition is its human capital. Training and development is a tool that supports human capital in exploring their agility. Therefore training and development is very important to the productivity of organization’s workforce.

Keywords: Training, Development and Employee’s Productivity

INTRODUCTION
Present Scenario of business world is characterized by a growing competitiveness, globalization and technological advancements in organization. In order to survive in the vibrant market, main emphasis must be given to human capital in order to be competitive and economically solvent. However, there are also some other factors that influence organizations’ success; organizations must possess productive (i.e. effective and efficient) employees. The knowledge and skills of an organization’s employees have become increasingly important to its performance, competitiveness and development. In addition, organizations differentiating on the basis of intangible characteristics of workforce such as knowledge, skills and attitude which increasingly see it as invaluable in order to remain sustainable in the competitive environment. Thus organizations must have human capital that has potential of adjusting to rapid dynamic business environment. Paradise, (2007) in his statement affirmed that U.S. organizations alone spend more than $126 billion annually on employee training and development. In an environment where there is high insecurity tends to present organizations with high risk, the information of business and market intelligence present organizations with a reliable competitive advantage over those that do not have such (Jelena, 2007). Hence knowledge is revolving to basic capital that triggers development. The achievement of organizations is however dependent on its educated, experienced as well as knowledgeable workforce. Therefore in order to sustain, organizations must see continuous and constant employee training and development as invaluable. Training and development is very important at all employee

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levels, due to the reason that skills get outmoded over a period of time and has to be replenished (Nishtha and Amit (2010)).

Training

Training is the learning process in which organizations provide development and enhance quality of new and existing employees. It involves the acquisition of knowledge, developing of skills, concepts and changing of attitudes and behaviors to enhance the performance of employees. Training is viewed as a systematic approach of learning and development that improve individual, group and organization (Goldstein& Ford, 2002) in Khawaja & Nadeem (2013). Thus it is the sequence of activities by which employee actually gets the knowledge and get to know how he or she can perform well in the organization for growing purposes. Assessments of employee and organizational needs as well as company strategies should be conducted and then used in selecting training methods and participants (Goldstein, 1991). According to Manju& Suresh (2011), training serves as an act of intervention to improve organization's goods and services quality in stiff the competition by improvements in technical skills of employees.

Development

Development means encouraging employees to acquire new and advanced skills and knowledge by providing training facilities. Most of the organizations provide employees with development programs in order to boost their skills and capabilities. Employee development through training, sharpening the skills and view point of an employee and advancing his/her existing knowledge and abilities. In a layman's language, employee development helps in developing and fostering employees for them to become consistent resources and ultimately benefit the organization. Thus organizations need to invest in continuous employee development in order to keep employees abreast with the latest developments in the industry to survive the fierce competition.

Employees Productivity

Employee's Productivity is the record of net sales over total employees. Its measures may be examined across the whole economy or viewed industry by industry. ‘Productive’ means profitable, beneficial and cost-effective. In this perspective, productivity is synonymous with output. In scientific literature, ‘productivity’ is defined as the relationship between output and input; between results or proceeds and sacrifices. Productivity as defined in Oxford dictionary (2007) is the efficiency with which things are being produced. Employee productivity however is the measure of output per unit of input economically.

Review of Literature

Thurow Lester (1992) identified that organizations can buy skills through hiring, or they can develop skills through training and development (T&D) activities. This paper focuses on strategically aligned training and development systems that advance and sustain the organization's competitive position in its market. Traditionally, T&D systems were relegated to narrowly defined support roles, where individuals were trained around current job-based deficiencies or predicted knowledge and skill needs. A few exemplary organizations, however, view a workforce with superior skills as a primary source of sustainable competitive advantage. In these organizations, T&D becomes the critical means for creating readiness and flexibility for change across all organizational levels, and there are strong linkages between all facets of the T&D system and the strategic leadership and planning processes of the business. Readiness and flexibility are achieved largely through supervisory, management, and executive training, as these individuals set the boundaries for modification and continuous improvement of existing organizational practices.

Hedges Patricia (1996) formed the first part of a two-part study reporting on the cost-effectiveness of specific training programs within Parcel force UK. They have assessed the effectiveness of a driver training program in a major Parcel force
region, measured the cost-effectiveness of the training performance in terms of vehicle-maintenance costs, accident rates and fuel consumption and discussed the difficulties in measuring the cost-effectiveness of training.

Sadler-Smith Eugene (1999) explored the evaluation practices of a sample of organizations in England and Wales who had signaled some commitment to training and evaluation by embarking on the UK’s Investors in People (IIP) standard. A questionnaire survey was sent to 1,000 firms and usable responses were received from 394 organizations. It was found that formative and delayed evaluations were used less frequently than immediate and context evaluations. In the majority of cases, the responsibility for evaluation was that of managers and the most frequently used methods were informal feedback and questionnaires. Operational reasons for evaluating training were cited more frequently than strategic ones. Information derived from evaluations was used mostly for feedback to individuals and to inform the training process and less for return on investment decisions. There were some statistically significant effects of organizational size on evaluation practice. The results were discussed in terms of their implications for evaluation theory & research and HRD practice & policy.

Yadapadithaya, P.S. (2003) reported on the existing corporate training and development (T&D) policies and practices in India and Britain. The data were collected from written questionnaires mailed to 252 Indian and 174 British companies. The results and discussions were based on the most prominent comparative and international dimensions of T&D such as key responsibility for T&D function, corporate commitment to T&D, major drivers and key result areas of T&D; purposes, levels, instruments, timing, and designs of evaluation; major perceived deficiencies and challenges of T&D function. The two-country comparisons revealed that while some of the findings related to corporate T&D policies and practices exhibited differences, others also reflected similarity. As compared to India, more training in Britain, more movement to delegating responsibilities or involving line managers in T&D in Britain, there also seems to be more focused on and involvement of individual employees in Britain. British organizations seem to be more concerned with business results from T&D. It may also be argued that the greater importance attached to business results brings about a growing involvement of employees and managers as opposed to HRD practitioners and that it is the greater movement in this direction in Britain compared to India that accounts for most if not all of the differences in the results of the two surveys. Eguiguren Marcos (2006) described the status of training in Catalonia’s large companies, from an economic and organizational point of view. The results are based on empirical-descriptive research conducted with a sample of large and medium-sized businesses. It analyses the organizational structure of the businesses and the type of organizational structure in relation to training. Researches like Colombo and Stanca (2008), Sepulveda (2005) and Konings & Vanormelingen, (2009), showed that training is an essential and effective instrument in accomplishment of the firm’s goals which resulting in higher productivity. Identification of training needs, propose and accomplishment of training practices, transfer of training, and evaluation of program benefits are key activities (Krishnaveni & Sripirabaa, 2008) in addition to studying general training variables such as types of training, choice of trainees, selection criteria, evaluation instruments etc.

OBJECTIVES

The study aims at achieving following objectives:

● To measure the effect of Training Program on Employee Productivity.
● To identify the underlying factors of Training Program.

RESEARCH METHODOLOGY

The Study

The study was descriptive in nature with survey method being used to collect the data.

Sampling Design

Universe: The workers of manufacturing organizations of Mathura region.

Sampling Unit: Individual worker of various organization were the part of the study.

Sampling Technique: Non-probability judgmental sampling technique was used.

Sample Size: 150 workers of different
manufacturing firms like Plumber industries and Ginni Filaments.

**TOOLS FOR DATA ANALYSIS**

- Regression test was applied in the research to find out the impact of Training Program on Employee Productivity.
- Reliability test was applied to check whether data items in the questionnaires are reliable or not through Cronbach alpha & Split-half.
- Factor analysis test was applied to identify the underlying dominant factors responsible for Employees Productivity.
- Internal consistency was established through item to total correlation.

**ANALYSIS & RESULTS**

**TRAINING PROGRAM**

**Consistency Measure**

First of all, consistency of all the items was checked through item to total correlation. Under this, total of every item with total of all the items was measured and the computed value is compared with standard value (i.e., 0.15905). If computed value is found less than standard value than whole statement is dropped and was termed as inconsistent. No item was dropped, as the computed value was more than standard value.

**Reliability Measure**

Reliability test was carried out using SPSS software and the reliability test measures are given below:

- Alpha 0.707
- Split Half 0.804

The value of reliability test was more than the standard value 0.7, hence the reliability of questionnaire was considerably acceptable.

**Factor Analysis**

Factor Analysis test was conducted through SPSS software to find out the underlying factors.

**Description of factors**

The raw scores of 15 items were subjected to factor analysis to find out the factors that contribute towards Training Program. After factor analysis, 7 factors were identified -

1. **Responsibility** - This factor has emerged as the most important determinant of Training Program with total variance of 16.008%. It includes training session, through sports & culture, participation, recommendation and something new should be added to training program. This measurement framework has been used to develop Training Program. Designing training program systems is all about deciding which measures to select, and just as importantly, which measures to ignore.

2. **Personal Achievement** - This is the second important factor of training Program with total variance of 10.687%. This factor of Training Program includes reducing the stress, and establishing employee's performance. This is also an important factor because every employee who works in an organization wants personal satisfaction.

3. **Working Condition** - This factor of Training Program includes the right atmosphere and climate with total variance of 6.646%. Murphy (1986) in their study found that Working Condition affect performance and assesses the extent to which they have delivered on their promise.

4. **Evaluation** - This is the second important factor of Training Program with total variance of 5.582%. This factor of Training Program includes job requirement and effective learning. During the research, I found that effective learning helps in increasing performance on job.

5. **Self Confidence** - This factor has emerged as the most important determinant of self confidence with total variance of 5.115%. It includes self confidence. Goold, 1986; suggests that Training Program is a technique for firms that aim at improving problem-solving activities as well as increasing Self Confidence. Cooper (2001) suggested that self- confidence were best suited for developmental rather than evaluative purposes, and that self- Confidence can improve future performance by creating a self-fulfilling prophecy.

6. **Applying Efforts** - This factor of Training Program includes the considerable importance and applying skills with total variance of 4.818%. Ittner et al 1997 define that employees must give importance in applying efforts in the
organization so as to achieve a desired level of performance at work.

7. Job Accomplishment - This factor of Training Program includes the efforts of organization in training program and job satisfaction with total variance of 6.649%. Employee involvement practices affect performance and assess the extent to which they have delivered on their promise.

EMPLOYEE PRODUCTIVITY

Consistency Measure
First of all, consistency of all the items was checked through item to total correlation. Under this, total of every item with total of all the items was measured and the computed value is compared with standard value (i.e., 0.15905).

Reliability Measure
Reliability test was carried out using SPSS software and the reliability test measures are given below

| Alpha      | 0.800 |
| Split Half | 0.787 |

Factor Analysis

Description of factors
The raw scores of 10 items were subjected to factor analysis to find out the factors that contribute towards Employee Productivity. After factor analysis, 4 factors were identified:-

1. Content of Personal Achievement - This factor has emerged as the most important determinant of Employee Productivity with total variance of 43.417%. It includes Active participation, more confidence, Productivity, more comfortable, evaluate your self and opinion have changed. Schneiderman (1990) talks about a ‘good scorecard’ it is a strategy or success map to which he refers the Performance Prism Designing Training Program measurement systems is all about deciding which measures to select, and just as importantly, which measures to ignore.

2. Skills and Ability - This is the second important factor of Training Program with total variance of 8.016%. This factor of Training Program includes only skills and ability of employee’s performance. Cooper (2001) suggested that skills and ability were best suited for developmental rather than evaluative purposes, and that skills and ability can improve future performance by creating a Training Program.

3. Job involvement - This factor of Training Program includes the job of employee with total variance of 7.149%. Murphy (1986) in their study found that Training Program helps to do job well. Employee’s involvement practices affect performance and assess the extent to which they have delivered on their promise.

4. Ability to maintain Balance - This factor of Training Program includes the position and opinion of employee with total variance of 10.771%. Training Program helps the employee to increase their mental ability and also increase their position in an organization.

Regression Analysis
The regression was calculated by taking the total of Training Program and Employee’s Productivity by using SPSS software. In this, the Training Program was taken as an independent variable and employee Productivity as a dependent variable. Therefore, regression was calculated by taking dependent and independent variable.

Null hypothesis (Ho): It states that there is no significant impact of Training Program on employee Productivity.

Alternative Hypothesis (Ha): It states that there is significant impact of Training Program on employee Productivity.

\[ Y = a + bx \]

\[ Y = 61.503 + (-0.502)x \]

X = Training Program (independent variable)

Y = Employee Productivity (dependent variable)

The linear regression was applied between “Training Program” (independent variable), “Employee Productivity” (dependent variable). The result of regression indicates the independent variable Training Program has an impact on the dependent variable employee Productivity signified by the coefficient beta factor of -0.502. Also the T value is significant.

As the value of T is 9.369, which is acceptable at 0.001 level of significance, so we accept the
hypothesis that there is a significant impact of Training Program on employee Productivity.

CONCLUDING REMARKS
This research has concluded that in today’s scenario the Training Program is an important factor for every manufacturing organization. The objective of the study was to study the Training Programs’ impact on employee Productivity. With the help of primary and secondary data, researchers have applied the item to total correlation, factor analysis, and multiple regressions to identify the impact. During the research, researchers found that personal achievement is very important factor in Training Program which is highly effective on Training Program. In this study, researchers tried to find out the impact of training Program on employee’s Productivity. At last regression has been applied and the alternative hypothesis was accepted.

REFERENCES
Table 1: Item to Total Correlation

<table>
<thead>
<tr>
<th>Items</th>
<th>Computed Correlation value</th>
<th>Consistency</th>
<th>Accepted/Dropped</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Company’s effort in organizing training program.</td>
<td>0.165201</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>2. Considerable importance to training program.</td>
<td>0.324034</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>3. Keeping your job requirement</td>
<td>0.37692</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>4. Training program Effective in learning</td>
<td>0.343783</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>5. Able to apply skills in job</td>
<td>0.252235</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>6. Company provide you right atmosphere &amp; climate</td>
<td>0.333155</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>7. Helps to reduce the stress</td>
<td>0.282442</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>8. Increase job satisfaction and industrial relations</td>
<td>0.453765</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>9. New should be added to the training program</td>
<td>0.460534</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>10. Training establishment</td>
<td>0.415719</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>11. Training recommendation</td>
<td>0.424165</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>12. Encouraged through sports and cultural activities</td>
<td>0.49305</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>13. Participation of Employees is encouraged</td>
<td>0.479919</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>14. Competent to conduct a training session</td>
<td>0.531341</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>15. Creates self confidence</td>
<td>0.327953</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Note: - All the items of questionnaire of Training Program were more than the standard value (0.15095). Therefore, all statements were accepted and termed as consistent.

Table 2: Table of Factor Analysis

<table>
<thead>
<tr>
<th>Factor name</th>
<th>Eigen value</th>
<th>%age of Variance</th>
<th>Variable convergence</th>
<th>Loading value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Responsibility</td>
<td>2.401</td>
<td>16.008</td>
<td>14. Conduct a training session</td>
<td>0.673</td>
</tr>
<tr>
<td>2. Personal Achievement</td>
<td>2.351</td>
<td>10.687</td>
<td>12. Through sports and cultural</td>
<td>0.606</td>
</tr>
<tr>
<td>3. Working Condition</td>
<td>1.462</td>
<td>6.646</td>
<td>13. Participation</td>
<td>0.582</td>
</tr>
<tr>
<td>4. Evaluation</td>
<td>1.228</td>
<td>5.582</td>
<td>11. Recommendation</td>
<td>0.561</td>
</tr>
<tr>
<td>5. Self Confidence</td>
<td>1.125</td>
<td>5.115</td>
<td>9. Added to the training program</td>
<td>0.522</td>
</tr>
<tr>
<td>6. Applying Efforts</td>
<td>1.060</td>
<td>4.818</td>
<td>7. Reduce the stress</td>
<td>0.547</td>
</tr>
<tr>
<td>7. Job Accomplishment</td>
<td>1.592</td>
<td>6.649</td>
<td>10. Establishment</td>
<td>0.514</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6. Right atmosphere &amp; climate</td>
<td>0.488</td>
</tr>
<tr>
<td>4. Evaluation</td>
<td></td>
<td></td>
<td>3. Job requirement</td>
<td>0.524</td>
</tr>
<tr>
<td>5. Self Confidence</td>
<td></td>
<td></td>
<td>4. Effective in learning</td>
<td>0.490</td>
</tr>
<tr>
<td>6. Applying Efforts</td>
<td></td>
<td></td>
<td>15. Self confidence</td>
<td>0.682</td>
</tr>
<tr>
<td>7. Job Accomplishment</td>
<td></td>
<td></td>
<td>2. Considerable importance</td>
<td>0.662</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5. Apply skills</td>
<td>0.642</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1. Effort in organizing training program</td>
<td>0.606</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8. Job satisfaction</td>
<td>0.495</td>
</tr>
</tbody>
</table>
Table 3: Item to Total Correlation

<table>
<thead>
<tr>
<th>Items</th>
<th>Computed Correlation value</th>
<th>Consistency</th>
<th>Accepted/Dropped</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Productivity on the work place has increased.</td>
<td>0.634496</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>2. Actively participation in goal setting</td>
<td>0.663386</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>3. Evaluate yourself better</td>
<td>0.58561</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>4. More confidence and zeal than before</td>
<td>0.650918</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>5. Opinion have changed positively</td>
<td>0.559733</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>6. More comfortable in working</td>
<td>0.504311</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>7. Good use of your skill and ability</td>
<td>0.472803</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>8. Helps you to do job well</td>
<td>0.525406</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>9. Opinions and perspectives</td>
<td>0.358758</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
<tr>
<td>10. Satisfied with the your position</td>
<td>0.402831</td>
<td>Consistent</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Table 4: Table of Factor Analysis

<table>
<thead>
<tr>
<th>Factor name</th>
<th>Eigen value</th>
<th>Total %age of Variance</th>
<th>Variable convergence</th>
<th>Loading value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Content of personal achievement</td>
<td>6.513</td>
<td>43.417</td>
<td></td>
<td>0.743</td>
</tr>
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<td>2. Actively participation</td>
<td>0.743</td>
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<td>3. Evaluate yourself</td>
<td>0.625</td>
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<tr>
<td>4. More confidence</td>
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<td></td>
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<td>5. Opinions have changed positively</td>
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<tr>
<td>6. More comfortable in working</td>
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<td>7. Skill and ability</td>
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<td>8. Job well</td>
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<td>9. Opinions</td>
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Table 5: Coefficients

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<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
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<th>Sig.</th>
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<td>11.836</td>
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<td>-0.089</td>
<td>0.068</td>
<td>-1.314</td>
<td>0.191</td>
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Dependent Variable: VAR00002
A Reflection on Financial Problems of Women Entrepreneurs in Pondicherry

*Dr. K. Lavanya Latha

ABSTRACT

In recent years for a developing country, micro-entrepreneurial ventures are considered the most critical factor that would by the foundation in an economically struggling third would develop. There entrepreneurial ventures will help both the urban and rural population through creation of jobs, a rescue out of unemployment and poverty and there by impact upon developing skills, self- esteem and self-sufficiency. This will certainly contribute to the overall development of the economy. Women are almost one half of the world’s population having enormous potential but being underutilized or unutilized for the economic development of the nation. There is need to strengthen and streamline the role of women in the development of various sectors by harnessing their power towards nation building and to attain accelerated economic growth. Entrepreneurship among women is a recent phenomenon. In a developing country like India, most of women both urban and rural areas are coming out with latent entrepreneurial talents to start micro-ventures. However, we do observe certain unfavorable conditions that often hinder the emergence of such entrepreneurial talents. In this context, the present paper is attempt to study financial problems of women entrepreneurs in Puducherry, India.

INTRODUCTION

Many developing countries are experiencing a state of transition. They are striving to move from a subsistence-oriented, tightly integrated and an inward looking local economy to a surplus seeking, market led and outward looking economy. One strategy that could make this possible is the emergence of a multitude of small scale and micro enterprises. This requires building up of a wide base of population capable of exhibiting enhanced entrepreneurial behavior.

In recent years for a developing country, micro-entrepreneurial ventures are considered the most critical factor that would by the foundation in an economically struggling third would develop. There entrepreneurial ventures will help both the urban and rural population through creation of jobs, a rescue out of unemployment and poverty and there by impact upon developing skills, self- esteem and self-sufficiency. This will certainly contribute to the overall development of the economy.

Women are almost one half of the world’s population having enormous potential but being underutilized or unutilized for the economic development of the nation. There is need to strengthen and streamline the role of women in the development of various sectors by harnessing their power towards nation building and to attain accelerated economic growth. Entrepreneurship among women is a recent phenomenon. In a developing country like India, most of women both urban and rural areas are coming out with latent entrepreneurial talents to start micro-ventures. However, we do observe certain unfavorable conditions that often hinder the emergence of such entrepreneurial talents. In this context, the present paper is attempt to study financial problems of women entrepreneurs in Puducherry, India.

CONCEPT OF WOMEN ENTREPRENEURS

Women Entrepreneurs may be defined as the women or a group of women who initiate, organize and operate a business enterprise. The Government of India has defined women entrepreneurs as ‘an enterprise owned and controlled by women having a minimum financial interest of 51 per cent of the capital and giving at least 51 per cent of the employment generated in the enterprise to women. Women entrepreneurs engaged in business due to push and pull factors which encourage women to have an independent occupation and stands on their own legs. A sense towards independent decision-making on their life and career is the motivational factor behind this urge. Saddled with household chores and domestic responsibilities women want to get independence. Under the influence of these factors the women entrepreneurs choose a

*Assistant Professor in Department of Management Studies, Pondicherry University, Pondicherry
profession as a challenge and as an urge to do something new. Such a situation is described as pull factors. While in push factors women engaged in business activities due to family compulsion and the responsibility is thrust upon them.

**REVIEW OF LITERATURE**

Orhan (1999), Women entrepreneurs often feel that they are victims of discrimination. This statement was also emphasized that one of the most interesting issues with regard to women entrepreneurship is the different ways women are discriminated against in concealed ways. According to Kuratko and Welsch (1994), women entrepreneurs have long felt that they have been victims of discrimination. Various studies examined the types of discrimination and some have been attempted to document them. This argument is supported by De Bruin, Brush and Welter (2007) Researchers Sexton and Bowman-Upton suggest that female business owners are subject to gender-related discrimination. In addition, from the studies we emphasize that this discrimination against women seems to be even worse in Cities, such as East and South East states of India, where the financial sector is male oriented. The argument is further supported by Marlow (1997), who commented that discrimination remains a problem for women in self employment, for example, they experience particular difficulties in gaining bank finance for their ventures. According to Minniti and Arenius (2003) and Kock (2008), governments should address factors such as education, training and family-work reconciliation. Policies should thus create and guarantee the existence of underlying conditions favorable to an entrepreneurial environment rather than being active promoters of start-up activities. Bridge, O'Neill & Cromie, (2003) although men and women both experience personal problems, women recorded more difficulties. This is especially true with regard to a lack of self-confidence and not being taken seriously by providers of funds when applying for funds (It is widely acknowledged that Indian women have access to fewer resources than men. For example, relative to men, they tend to have lower access to land, credit facilities, education and training facilities (Katepa-Kalala, 1999:7). Winn (2004) argued that the critical factors for women to succeed in independent businesses need to be understood to provide a better education and support system. Governments can provide female entrepreneurs with special loans, subsidies, funds, enterprise centers, entrepreneurship awards, counseling, training, advisory support, information products and web portals. Richardson, Howarth and Finnegan (2004) commented that women entrepreneurs suffer from significant material constraints through to unhelpful attitudes arising from society's negative attitudes towards women in business. Heilman and Chen (2003) as well as Botha (2006) argued that various push-and-pull factors exist that can motivate women to start their own businesses. Botha (2006) has revealed in previous research, it is important to determine the factors that motivate women to start their own businesses. This knowledge regarding the profile of the woman entrepreneur might enable policy-makers to create an encouraging environment for women entrepreneurs to start their own businesses. Maas and Herrington (2006) defined push factors as the more negative factors, such as unemployment and retrenchment, which force people to become entrepreneurial in order to survive. They regard pull factors to be the more positive factors, such as government support and role models, which might influence people to choose entrepreneur-ship as a career option. Shelton (2006) advised that in order to improve the survival and performance of women-owned ventures, programmes should be implemented to assist women in selecting appropriate work-family management strategies. If work-family conflict is addressed, a potential stumbling block for women business owners will be removed and the effectiveness of other programmes will be enhanced. Ghosh and Cheruvalath (2007) found that only one-fifth of women are drawn into entrepreneurship by pull factors. The rest are forced into entrepreneurship by push factors. Ghosh & Cheruvalath, (2007) Challenges to women entrepreneurs cover a wide spectrum, including level of education, inter-role conflicts emanating from greater parenting responsibilities, a dearth of financial assistance and socio-cultural constraints. Abimbola, Emmanuel and Ahmadu (2007), however, found that in most cities many programmes and legislation have been implemented to improve life for women entrepreneurs, but have not yielded results. This happened because most of the facilities embedded in the programmes do not reach those in need to them, but are used to service political
and other loyalties. These researchers believe that the dispensation of facilities should rather be done through community-based associations or groups, rather than through political affiliations. Effective monitoring mechanisms should also be put into place to ensure that facilities are put into proper use and to prevent the misapplication of funds. Kock (2008) argued that many women want post-start-up support that is accessible after trying out the skills learned in earlier training. Mentoring is one method of providing this support, which can be very effective as it addresses the specific problems faced by the individual entrepreneur. The support can include individual as well as group-based assistance directed at specific problems where mentors serve as role models.

CHARACTERISTICS OF WOMEN ENTREPRENEURS

Entrepreneur believe that they can change the environment in their own capacity. In the development of entrepreneurship an individual is the most important factor. An individual is expected to possess certain qualities that are necessary to become successful in light of this. The following are the characteristics of women entrepreneurs which has an urge to become successful.

- Confidence
- Goal oriented
- Desires feedbacks and learns from experience, recognizing errors
- Drive for independence but can co-operate when necessary for her goals
- Hardworking (on things she want to do)
- Calculated risk-taking
- Takes personal responsibility
- See goals and realistic step by step sub goals
- Ability to grasp quickly
- Mentally hyperactive
- Sensitive and perceptive of people and environment
- Higher tolerance of ambiguities
- Family and friend second to business
- Pleasant personality
- Likes to excel in work.

AIM OF THE PAPER

The present paper is mainly focusing on to study the problems of women in micro-entrepreneurship in Puducherry, India.

METHODOLOGY AND DESIGN

Pondicherry region has two municipalities—Pondicherry Municipality Corporation and Oulgaret Municipality Corporation. Oulgaret Municipality has four constituencies with a highest number of micro-enterprise running by women. In that Oulgaret, Lawspet and Reddiyarpalayam were chosen for the present study. Around 1120 micro-enterprises are working in these municipalities. For the present study 296 women were selected randomly taken from these three regions.

This study is compiled with the help of the primary data and was collected with the help of specially prepared interview schedule. The schedule included the questions related to the general information and about the financial problems. This is purely a descriptive study. Therefore, no complicated models and tools were used. Only simple average, chi-square were used for the analysis. Secondary data was collected from various websites and journals.

AGE-GROUP OF WOMEN ENTREPRENEURS

Age and socio-economic activities are inter-related. The middle age group people can actively involve in entrepreneurship. Table 1.0 deals with the age-group of sample respondents for the study. From the above table it is observed that 35.2 percent of women entrepreneurs belong to age-group of 40-50, 29 percent belong to 30-40 age groups and 18.9 percent belong to 20-30. It indicates that middle age group are actively involving in micro-entrepreneurship.

REASONS FOR ENTERING MICRO-ENTREPRENEURSHIP

The main aim of entrepreneurship is to promote savings, family support and to get credit for the productive and consumption purposes. The Table 2.0 shows the reasons for entering into entrepreneurship by the sample respondents.

It is observed that the most of the respondents in
the study have entered into entrepreneurship for financial security (37.8 per cent) and getting loan (20.3 per cent) from the Government. And 16.9 per cent of them are to promote their personal savings in addition to get social status.

EDUCATIONAL QUALIFICATIONS

Education is one of the inputs for empowerment. It enables the women to gather information from different sources and helps them to analyze properly and think innovatively in entrepreneurship. The education level of the selected women for the study are represented in the Table 3.0.

From the above table, it is clearly indicated that most of the women entrepreneurs are high school (37.2 percent), 27 per cent were graduates and 18.5 per cent studied up to S.S.C. The data reflects that educational qualification is influencing to start enterprise.

Problems of women Entrepreneurs

Some of the problems generally faced by the women entrepreneurs are financial, raw material, sales / marketing, labour/employee, infrastructural, operational problems and lack of knowledge of technical know-how on the part of the personnel. Apart from lack of entrepreneurial zeal of the people, particularly youth, lack of skilled labour in the region, poor marketing and government support, lack of encouragement of/from the financial institutions and very limited R&D facilities also are the problems being faced by the women entrepreneurs. In addition to that lack of awareness among the entrepreneurs about various new schemes launched by the government for developing the women entrepreneur is also a serious problem. In the present paper, only financial problem has been taken into consideration.

Financial Problems

Finance is one of the most important problem faced by entrepreneurs. As finance is the life blood of a business organization, no business organization can function properly in the absence of adequate funds. Generally, most entrepreneurs face the problem of finance at the time of making the initial investment as well as during the course of management of the enterprise (Kharbanda, 2001). Poor financial situations and low levels of R&D are the reasons for the inability of MSMEs in identifying their needs. Patnaik (1991) in his study found that almost all enterprises faced difficulties in raising term loans and working capital. Sinha (1991) in a study of 100 small enterprises in Patna city of Bihar State found that 85 per cent enterprises face the problem of finance. Finance is not easy to come by as the entrepreneurs have to depend mostly on mere than one source and pay heavy investment charges and pass through many an ordeal and subsequent delay. Similarly, enterprises which are ancillary to other large enterprises do not receive timely payments from the mother enterprises for their supply. Besides this, lack of access to finance, inadequate working capital, non-availability of credit at the right time, delays in sanctioning and dispersing loans and huge rates of interest on loans raised are the other problems faced by small and micro-entrepreneurs.

Area-wise Financial Problems

The response to financial problems of entrepreneurs/enterprises in the study area has been presented in the table no. 4.0

The table 4.0 shows that, 66.2 per cent entrepreneurs (196 of 296 enterprises) are facing the financial problem and 33.8 per cent enterprises (100 of 296) are not. Among the 196 Lawspet area-entrepreneurs facing the problem of finance, 130 are from Lawspet area, 63 are from Oulgaret area enterprises and 3 are from Reddiyarpalayam enterprises having the financial problem. It is concluded that 66.2 per cent of women entrepreneurs were facing the financial problems in all the study area.

The different kinds of financial problems faced by the micro-entrepreneurs in the study area have been presented in the table no. 5.0.

The table no. 5.0 lucidly portrays that, out of the sample enterprises, 15.50 per cent enterprises (46 out of 296 ) faced the problems of shortage of fixed capital, 33.80 per cent enterprises (100 out of 296) faced the shortage of working capital, 17.60 per cent enterprises (52 out of 296) faced the high rates of interest problem, 23.0 per cent enterprises (68 out of 296) received meagre assistance from government agencies and 1.7 per cent enterprises (5 out of 296) faced other financial problems such as delay in getting the finance and installments of credit availability.
Regarding the problems of finance, with respect to Lawspet area, 13.50 per cent (28 out of 207) faced the problems of shortage of fixed capital, 33.3 per cent enterprises (69 out of 207) faced the shortage of working capital, 15.9 per cent enterprises (33 out of 207) faced the high rates of interest as a problem, and 24.2 per cent enterprises (50 out of 207) received meagre assistance from government agencies.

With regard to the Oulgaret area enterprises facing the problems of finance, 20.70 per cent (17 out of 82) faced the problems of shortage of fixed capital, 36.6 per cent enterprises (30 out of 82) faced the shortage of working capital, 23.2 per cent enterprises (19 out of 82) faced the problem of high rates of interest, 20.7 per cent enterprises (17 out of 82) received meagre assistance from government agencies and 6.1 per cent (5 out of 82) faced other financial problems such as delay in getting the finance and installments of credit availability from financial institutions. Similarly, from the Reddiyarpalayam area enterprises, 14.30 per cent (1 out of 7) faced the problems of shortage of fixed capital, 14.30 per cent enterprises each (1 out of 7) faced the shortage of working capital and meagre assistance from government agencies. These figures reveal that the shortage of working capital is a major problem of the sample entrepreneurs in the study area.

**Enterprise Group-wise Financial Problems**

The financial problems faced by the sample entrepreneurs/enterprises in the study area enterprise group wise are presented in the table no. 6.0.

The table 6.0 reveals that, out of the 296 sample entrepreneurs/enterprises, 196 entrepreneurs / enterprises (66.2%) have faced the financial problems with various enterprise groups in the study area. Among them, 35 out of 44 (79.5%) are Agro, Forest and Animal based, 19 out of 32 enterprises (59.4 %) are Textile based, 30 out of 48 enterprises (62.5 %) are Mineral based, 22 out of 39 enterprises (56.4 %) are Engineering based, 22 out of 33 enterprises (66.7 %) are Chemical based enterprises and 68 out of 100 enterprises (68.0 %) of other nature category enterprises face financial problems. Additionally, Chi-Square test reveals that there is no significant association between the category of the enterprises and level of financial problems faced as the Chi-square value is insignificant (Chi square value =6.282 and p-value=0.280).

**Form of Organisation-wise Financial Problems**

The below table 7.0 presents that the financial problems faced by the sample entrepreneurs/enterprises organisation wise in the study area.

The table 7.0 reveals that, out of the 296 sample entrepreneurs/enterprises, 196 entrepreneurs / enterprises (66.2%) have faced the financial problems. Among them, 118 out of 170 enterprises (69.4%) are maintained by Sole Proprietorship, 53 out of 82 enterprises (64.6%) are maintained by Partnership firms and 25 out of 44 enterprises (56.8%) are Private Ltd., companies which face financial problems. The Chi-Square test reveals that there is no significant association between the form of organization maintained by entrepreneurs and level of financial problems faced by the entrepreneurs/enterprises as the Chi-square value is insignificant (Chi square value =2.605 and p-value=0.272).

**Nature of Activity-wise Financial Problems**

The table 8.0 reveals the financial problems faced by the sample entrepreneurs/enterprises in the study area, on the basis of nature of activity.

The table 8.0 shows that, out of the 296 sample entrepreneurs/enterprises, 196 entrepreneurs / enterprises (66.2%) have faced the financial problems by nature of activity wise in the study area. Among them, 62 out of 94 enterprises (66.0%) were Manufacturing enterprises, 28 out of 42 enterprises (66.7%) were Assembling enterprises, 35 out of 54 enterprises (64.8%) were Processing enterprises, 16 out of 28 enterprises (57.1 %) were Repairing and Maintenance enterprises and 55 out of 78 enterprises (70.5%) Service enterprises. Since the Chi-Square value is insignificant (Chi square value =1.728 and p-value=0.786), it can be inferred that there is no significant relation between the nature of the enterprise activities and level of financial problems faced by the entrepreneurs/enterprises.

**CONCLUSION**

In India, here are many problems involved in starting new enterprises and many problems are faced by the existing entrepreneurs also. Generally, the entrepreneurs would prefer wage/salary employment rather than being entrepreneur.
There is a common belief that ‘all business is risky’, and of course, there is much truth in it. Because the entrepreneur has to take countless decisions from among several possible alternatives in performing his task successfully. If the planning or estimation about the future were to go wrong the entrepreneur will surely land in trouble. Now-a-day’s entrepreneurs are facing several problems, which are of individual, group and institutional nature. However, ultimately it rests on the individual because it is he who has to take the initiative to take a decision to start and manage his enterprise. But he also needs the approval and support of his kin, group or community.

Some of the problems likely to be encountered are lack of motivation, shyness and inhibition on his part, lack of finance for initial investment, lack of confidence in one’s own abilities, ignorance of opportunities that he can avail himself of, lack of requisite managerial and technical skills to start and manage his/her enterprise. Understandably, many enterprises are scared of the cumbersome and time-consuming process in establishing an enterprise. Similarly, they may have to face some problems from the group to which they belong such as, preference for traditional occupations and professions, lack of awareness or ignorance of their own potential, managerial and human, ignorance of alternative avocations; lack of freedom to choose on account of the influence of the local elite or the dominant caste. Besides, the group is likely to be tradition bound, and its values are likely to continue with its institutionalized familiar occupations.

REFERENCES


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<td>20-30</td>
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<td>30-40</td>
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<td>40-50</td>
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<td>5.</td>
<td>50-60</td>
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<td>Reasons</td>
</tr>
<tr>
<td>1.</td>
<td>For family support</td>
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<td>2.</td>
<td>For promoting savings</td>
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<td>3.</td>
<td>For social status</td>
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<td>4.</td>
<td>For financial security</td>
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<td>For getting loan</td>
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<td>3.</td>
<td>Up to SSC</td>
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<td>Graduation</td>
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<th>Table 4.0</th>
<th>Response to Financial Problem - Area-wise Distribution</th>
</tr>
</thead>
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<td>Response to Financial Problem</td>
<td>Lawspet</td>
</tr>
<tr>
<td>Yes</td>
<td>130 (62.8)</td>
</tr>
<tr>
<td>No</td>
<td>77 (37.2)</td>
</tr>
<tr>
<td>Total</td>
<td>207 (100.0)</td>
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Source: Source: Researcher’s Compilation
Note: Figures in parentheses indicate percentages to totals.

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<tr>
<th>Table 5.0</th>
<th>Financial Problems of Enterprises/ Entrepreneurs (Multiple Responses)</th>
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<tbody>
<tr>
<td>Sl. No.</td>
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<tr>
<td>1.</td>
<td>Shortage of Fixed Capital</td>
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<td>2.</td>
<td>Shortage of Working Capital</td>
</tr>
<tr>
<td>3.</td>
<td>High Rate of Interest</td>
</tr>
<tr>
<td>4.</td>
<td>Meagre Assistance from Govt. Agencies</td>
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<tr>
<td>5.</td>
<td>Others</td>
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</table>

Source: Researcher’s Compilation. Percentages computed from Sample size (N).
Note: Figures in parentheses indicate percentages to totals.
Table No.6.0
Response to Financial Problems—Enterprise Group wise

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<tr>
<th>Sl. No</th>
<th>Enterprise Group</th>
<th>Financial Problems</th>
<th>Total</th>
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<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>1</td>
<td>Agro, Forest and Animal based</td>
<td>35(79.5)</td>
<td>9(20.5)</td>
</tr>
<tr>
<td>2</td>
<td>Textiles based</td>
<td>19(59.4)</td>
<td>13(40.6)</td>
</tr>
<tr>
<td>3</td>
<td>Mineral based</td>
<td>30(62.5)</td>
<td>18(37.5)</td>
</tr>
<tr>
<td>4</td>
<td>Engineering based</td>
<td>22(56.4)</td>
<td>17(43.6)</td>
</tr>
<tr>
<td>5</td>
<td>Chemical based</td>
<td>22(66.7)</td>
<td>11(33.3)</td>
</tr>
<tr>
<td>6</td>
<td>Others</td>
<td>68(68.0)</td>
<td>32(32.0)</td>
</tr>
<tr>
<td>7</td>
<td>Total</td>
<td>196(66.2)</td>
<td>100(33.8)</td>
</tr>
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</table>

Chi-square value 6.282

p-value 0.280

Source: Researcher’s Compilation.

Note: Figures in parentheses indicate percentages to totals.

Table No. 7.0
Response to Financial Problems - Form of Organisation-wise

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Form of Organisation</th>
<th>Financial Problems</th>
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<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>1.</td>
<td>Sole Proprietorship</td>
<td>118(69.4)</td>
<td>52(30.6)</td>
</tr>
<tr>
<td>2.</td>
<td>Partnership</td>
<td>53(64.6)</td>
<td>29(35.4)</td>
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<tr>
<td>3.</td>
<td>Private Ltd, Company</td>
<td>25(56.8)</td>
<td>19(43.2)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>196(66.2)</td>
<td>100(33.8)</td>
</tr>
</tbody>
</table>

Chi-square value 2.605

p-value 0.272

Source: Researcher’s Compilation.

Note: Figures in parentheses indicate percentages to totals.

Table No. 8.0
Response to Financial Problems - Nature of Enterprise Activity wise

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Nature of Activity</th>
<th>Financial Problems</th>
<th>Total</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>1.</td>
<td>Manufacturing</td>
<td>62(66.0)</td>
<td>32(34.0)</td>
</tr>
<tr>
<td>2.</td>
<td>Assembling</td>
<td>28(66.7)</td>
<td>14(33.3)</td>
</tr>
<tr>
<td>3.</td>
<td>Processing</td>
<td>35(64.8)</td>
<td>19(35.2)</td>
</tr>
<tr>
<td>4.</td>
<td>Repairing &amp; Maintenance</td>
<td>16(57.1)</td>
<td>12(42.9)</td>
</tr>
<tr>
<td>5.</td>
<td>Services</td>
<td>55(70.5)</td>
<td>23(29.5)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>196(66.2)</td>
<td>100(33.8)</td>
</tr>
</tbody>
</table>

Chi-square value 1.728

p-value 0.786

Source: Researcher’s Compilation.

Note: Figures in parentheses indicate percentages to totals.
A Study on Financials of Infrastructure Sector: A Comparison between DLF Ltd & Omaxe Ltd

Vikas Gupta¹
Nitin Saxena²

ABSTRACT

Now-a-days Initial Public Offer (IPO) has become one of the preferred investments for the investor. In the recent years many companies have come up with IPO to raise funds to their requirements. Investing in IPO is considered as one of the risky investments. It is because the market behavior is not known especially in volatile share market. Performance of the IPO varies in accordance with the market i.e. bullish to bearish. Interests of the investors are influenced by the market trend and thus the performance of the IPO. IPOs can be a risky investment.

This research paper examines the strong cycles in the no. of IPOs that have existed in the Indian IPO markets since 1991 and the level of underpricing that has been observed during such cycles. It even tries to establish a reason behind the hot and cold IPO markets observed in India. It concentrates on two key variables, namely, IPO volume and initial returns and analyses their nature and interrelation.

Key words: IPO, Ratio, Stock Market, Offer Price, Investors

Introduction

PREPARATORY WORK INVOLVED BY THE COMPANY FOR AN IPO

A company that is thinking about going public should start preparing detailed financial results on a regular basis, and developing a business plan if they do not already have one, as much as two years in advance of the desired IPO. Soon thereafter, it needs to put its IPO team together, consisting of the lead investment bank, an accountant, and a law firm. The IPO process officially begins with what is typically called an “all-hands” meeting. At this meeting, which usually takes place six to eight weeks before a company officially registers with the Securities and Exchange Commission, all the members of the IPO team plan a timetable for going public and assign certain duties to each member.

The most important and time-consuming task facing the IPO team is the development of the prospectus, a business document that basically serves as a brochure for the company. The prospectus includes all financial data for a

1. Professor, Gitarattan International Business School, Rohini Delhi
2. Research Scholar, Mewar University Chittorgarh Rajasthan
company for the past five years, information on the management team, and a description of a company’s target market, competitors, and growth strategy.

OBJECTIVE OF THE STUDY
- To study the IPOs of the companies in infrastructure sector such as DLF Ltd. and Omaxe Ltd. on the basis of issue, allotment and performance.
- To study the concept of Initial Public Offer (IPO).
- To study the procedure for IPOs

SCOPE OF THE STUDY
Infrastructure is highly responsible for propelling India’s overall development. The industry enjoys intense focus from the top officials of the Government for initiating policies that would ensure time-bound creation of world-class infrastructure in the country. This sector includes power, bridges, dams, roads and urban infrastructure development. The scope of the research paper will leave benefits to various parties:
- Other researchers
- Infrastructure
- Government
- Scholars etc.

METHODOLOGY
Without a proper well-organized research plan, it is impossible to complete the project and reach to any conclusion. The main objective of research will be to collect appropriate data, which work as a base for drawing conclusion and getting result. Therefore, research methodology is the way to systematically solve the research problem.

METHODOLOGY USED FOR DATA COLLECTION
The secondary data collected from various internet sites like Google.com, gmrgroup.in and many more.
Period of the study: 1st April 2009 – 31st March 2014
Methodology used for Data Analysis: Microsoft Word and Microsoft Excel used for showing the graphs and pie charts for the purpose of analyzing the data.

LITERATURE REVIEW
Espen Eckbo and Oyvind Norli, February 2004, conducted a research to study “Liquidity risk, leverage and long-run IPO returns”. This study examine the risk-return characteristics of a rolling portfolio investment strategy where more than six thousand Nasdaq initial public offering (IPO) stocks are bought and held for up to five years. The average long-run portfolio return is low, but IPO stocks appear as “longshots”, as five-year buy-and-hold returns of 1,000 percent or more are somewhat more frequent than for non-issuing Nasdaq firms matched on size and book-to-market ratio. The typical IPO firm is of average Nasdaq market capitalization but has relatively low book-to-market ratio. We also show that IPO firms exhibit relatively high stock turnover and low leverage, which may lower systematic risk exposures.
Michelle Lowry and G. William Schwert, February 2001, conducted a research to study “Biases in the IPO Pricing Process”. This study examines the entire IPO pricing process to study the apparent biases in the pricing of new offerings. While some of our findings provide added support for one or more of the existing theories of IPO pricing, others cannot be explained with these theories. We begin our analysis with the firm’s revelation of the expected range of offer prices, which is announced at the time the offer is filed or in an amended prospectus. We find that there are significant biases in these expected offer prices. Specifically, the price update, defined as the percent difference between the midpoint of this file range and the final offer price, is predictably related to publicly known firm- and offer-specific characteristics.
Ann E. Sherman, December, 2004, conducted a research to study “Global Trends in IPO Methods: Book Building vs. Auctions with Endogenous Entry”. This study examines the U.S. book building method has become increasingly popular for initial public offerings (IPOs) worldwide over the last decade, whereas sealed bid IPO auctions have been abandoned in nearly all of the many countries in which they have been tried. I model book building, discriminatory auctions and uniform price auctions in an environment where the number of investors and the accuracy of investors’ information are endogenous. Book building lets
underwriters manage investor access to shares, allowing them to: 1) reduce risk for both issuers and investors; and 2) control spending on information acquisition, thereby limiting either underpricing or aftermarket volatility.

Vikram Nanda and Rajdeep Singh, November 6, 2003, conducted a research to study “Hot Markets, Investor Sentiment, and IPO Pricing”. This study examines that an IPO company’s optimal response to the presence of sentiment investors and short sale constraints. Given regulatory constraints on price discrimination, the optimal mechanism involves the issuer allocating stock to ‘regular’ institutional investors for subsequent resale to sentiment investors, at prices the regulars maintain by restricting supply.

Ivo Welch and Jay Ritter, February 8, 2002, conducted a research to study “A Review of IPO Activity, Pricing, and Allocations”. This study examines on three areas of current research on IPOs: reasons for going public, the pricing and allocation of shares, and long-run performance. There are myriad theoretical reasons for firms wanting to go public, but only sparse evidence due to a general lack of data on the pool of private firms. Still, the evidence of large variation in the number of IPOs suggests that market conditions are the most important factor in the decision to go public.

Ambrish Gupta 2013, conducted a research to study “The IPO Market in India: perspective, prospects, and growth strategies”. The methodology was adopted to achieve the objective of this research by analysis last five year IPO by calculating profit and loss ratio and has discussed about the present state of the primary capital market in India, main reasons responsible for continuing gloom and its likely future outlook.

Seshadev Sahoo and Prabina Rajib 2010, conducted a research to study “After market pricing performance of initial public offerings (IPOs): Indian IPO market 2002-2006”. The methodology was adopted to achieve the objective of this research by using benchmark-adjusted buy-and- hold return (BHAR) and wealth relative (WR) are used to evaluate the long- run after market returns for IPOs. This paper present fresh evidence on IPO performance i.e., short-run under pricing and long run underperformance for 92 Indian IPO issued during period 2002-2006.

**DATA COLLECTION AND INTERPRETATION**

**A. Data Presentation**

**Ratio analysis**

Ratio analysis facilitates comparison between two companies. It reflects the financial efficiency & financial position of a company. Ratio analysis is fruitful in preparing plans for the future. Ratio analysis is process of comparison of one figure against another, which makes a ratio, and appraisal of the ratios to make proper analysis about the strength and weakness of the firms operation. Ratio analysis is extremely helpful in providing valuable insight into a company’s financial picture. Ratios provide an easy way to compare present performance of businesses.

Ratios depict the areas in which a particular business competitively advantaged or disadvantaged through comparing ratios to those of other businesses within the same industry.

**Hypothesis:**

Ho = there is no significant difference between current ratios of DLF Ltd. and Omaxe Ltd.

H1 = there is significant difference between current ratios of DLF Ltd. and Omaxe Ltd.

**Analysis**

The significance value for t-test for the relationship between the current ratio of the DLF Ltd. and Omaxe is 0.040 that is less than 0.05.

**Interpretation**

This indicates there was a significant relationship between the current ratio of the DLF Ltd. and Omaxe which is 0.040 that is less than 0.05. Hence, the null hypothesis stands rejected.
2. Quick ratio

Quick ratio = Quick Assets/Current Liabilities

Hypothesis:

Ho = there is no significant difference between quick ratios of DLF Ltd. and Omaxe Ltd.

H1 = there is significant difference between quick ratios of DLF Ltd. and Omaxe Ltd.

<table>
<thead>
<tr>
<th>FY</th>
<th>DLF LTD Quick ratio</th>
<th>Omaxe LTD Quick ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-07</td>
<td>1.54</td>
<td>0.76</td>
</tr>
<tr>
<td>2007-08</td>
<td>2.36</td>
<td>1.75</td>
</tr>
<tr>
<td>2008-09</td>
<td>2.60</td>
<td>1.82</td>
</tr>
<tr>
<td>2009-10</td>
<td>1.60</td>
<td>1.43</td>
</tr>
<tr>
<td>2010-11</td>
<td>1.37</td>
<td>1.32</td>
</tr>
<tr>
<td>2011-12</td>
<td>1.06</td>
<td>1.03</td>
</tr>
<tr>
<td>2012-13</td>
<td>0.98</td>
<td>1.03</td>
</tr>
<tr>
<td>2013-14</td>
<td>1.04</td>
<td>1.09</td>
</tr>
</tbody>
</table>

Analysis

The significance value for t-test for the relationship between the quick ratio of the DLF Ltd. and Omaxe is 0.096 that is more than 0.05.

Interpretation

This indicates there was no significant relationship between the quick ratio of the DLF Ltd. and Omaxe, which is 0.040 that is more than 0.05. Hence, the null hypothesis stands accepted.

3. Operating profit

Operating Profit = Operating Revenue - COGS - Operating Expenses - Depreciation and Amortization

Hypothesis:

Ho = there is no significant difference between operating profit of DLF Ltd. and Omaxe Ltd.

H1 = there is significant difference between operating profit of DLF Ltd. and Omaxe Ltd.

<table>
<thead>
<tr>
<th>FY</th>
<th>DLF LTD Operating ratio</th>
<th>Omaxe LTD Operating ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-07</td>
<td>56.27</td>
<td>29.17</td>
</tr>
<tr>
<td>2007-08</td>
<td>67.89</td>
<td>36.62</td>
</tr>
<tr>
<td>2008-09</td>
<td>56.41</td>
<td>19.38</td>
</tr>
<tr>
<td>2009-10</td>
<td>48.42</td>
<td>21.47</td>
</tr>
<tr>
<td>2010-11</td>
<td>39.25</td>
<td>14.76</td>
</tr>
<tr>
<td>2011-12</td>
<td>40.54</td>
<td>14.54</td>
</tr>
<tr>
<td>2012-13</td>
<td>33.78</td>
<td>13.40</td>
</tr>
<tr>
<td>2013-14</td>
<td>29.94</td>
<td>16.29</td>
</tr>
</tbody>
</table>
Analysis
The significance value for t-test for the relationship between the operating ratio of the DLF Ltd. and Omaxe is 0.000 that is less than 0.05.

Interpretation
This indicates there was a significant relationship between the operating ratio of the DLF Ltd. and Omaxe, which is 0.000 that is less than 0.05. Hence, the null hypothesis stands rejected.

4. Net profit ratio
Net Profit Ratio = Net Profit or Pat / Net Sales *100

Hypothesis:
Ho = there is no significant difference between net profit of DLF Ltd. and Omaxe Ltd.
H1 = there is significant difference between net profit of DLF Ltd. and Omaxe Ltd.

<table>
<thead>
<tr>
<th>FY</th>
<th>DLF LTD Net Profit Ratio</th>
<th>Omaxe LTD Net Profit Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-07</td>
<td>43.28</td>
<td>4.93</td>
</tr>
<tr>
<td>2007-08</td>
<td>53.29</td>
<td>6.30</td>
</tr>
<tr>
<td>2008-09</td>
<td>70.44</td>
<td>4.66</td>
</tr>
<tr>
<td>2009-10</td>
<td>22.29</td>
<td>5.39</td>
</tr>
<tr>
<td>2010-11</td>
<td>16.61</td>
<td>11.24</td>
</tr>
<tr>
<td>2011-12</td>
<td>11.74</td>
<td>10.32</td>
</tr>
<tr>
<td>2012-13</td>
<td>7.82</td>
<td>22.00</td>
</tr>
<tr>
<td>2013-14</td>
<td>6.60</td>
<td>13.17</td>
</tr>
</tbody>
</table>

Analysis
The significance value for t-test for the relationship between the net profit of the DLF Ltd. and Omaxe is 0.096 that is more than 0.05.
Interpretation

This indicates there was no significant relationship between the net profit of the DLF Ltd. and Omaxe, which is 0.040 that is more than 0.05. Hence, the null hypothesis stands accepted.

B. Data Analysis

1. Issue details

Interpretation of the table

● DLF Limited came up first with the IPO in this study and it had largest number of shares.

● The lowest price band is of Omaxe Limited Rs. 265 to Rs. 310 and that of DLF Limited was Rs. 500 to Rs.550.

● As the price band of Omaxe was low a retailer could apply for a maximum of 320 shares, and for DLF 180 shares.

● Minimum application was lowest in DLF 10 shares and Omaxe was 20 shares.

● Both companies DLF Limited and Omaxe Limited adopted the book building method for the issue.

Findings of the Study

● The Outlook for Infrastructure development remains stronger in the current and coming future.

● Infrastructure Realty projects are on the rise with Construction companies opting to go on for rental of equipments as not to block their funds required for equipments as they can be utilized only at one site-if purchased outright.

● Looking into this factor the Companies have huge growth prospects in respect of hiring of equipments.

● There is high deviation between DLF ltd. And Omaxe Ltd., where Omaxe spread is higher.

Suggestions and Scope for Further Study

DLF Limited came up first with the IPO in this study and it had largest number of shares i.e. the size of issue was largest amongst the two companies. This gave an advantage to the company. Its price band was also high. The price band of Omaxe Limited was low as compared to others. The Qualified Institutional Buyers were allotted highest number of shares in all the companies as their subscription was high. In DLF Limited the Non Institutional buyers and Retailers were allotted an equal number of shares. But Omaxe Limited Non institutional buyers were allotted much more than retailers. The employees were allotted very small amount as there was a low subscription from them in both the companies.

Recommendations of the Study

1. DLF Limited came up first with the IPO in this study and it had largest number of shares.

2. Net profit ratio is an indicator of overall efficiency of the business. After analyzing Net profit ratio of DLF Ltd. Is decreasing and Omaxe Ltd. is increasing. Therefore DLF Ltd. needs to maintain reserves in order to meet its long term liability

Hence, it was found that all both the companies DLF Limited and Omaxe Limited went through many fluctuations in the stock market, their prices were very high and also very low. In DLF Limited the volume traded was very high on the first day later on it reduced. But in case of Omaxe Limited the highest traded quantity was not on the first day. Thus both the companies can perform well in the future and have a lot of scope as the infrastructure sector is booming.

BIBLIOGRAPHY/REFERENCES


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18. www.economictimes.com
19. www.bseindia.com
20. www.nseindia.com

### Table 1: Table representing current ratios of both the companies in different years

#### Paired T-test:

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLF Ltd.</td>
<td>2.0875</td>
<td>.51497</td>
<td>8</td>
</tr>
<tr>
<td>Omaxe</td>
<td>2.5188</td>
<td>.83752</td>
<td>8</td>
</tr>
</tbody>
</table>

#### Correlations

<table>
<thead>
<tr>
<th></th>
<th>DLF Ltd.</th>
<th>Omaxe</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLF Ltd.</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.008</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>8</td>
</tr>
<tr>
<td>Omaxe</td>
<td>Pearson Correlation</td>
<td>.848**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.008</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>8</td>
</tr>
</tbody>
</table>

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

#### Paired Samples Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>Dlf</td>
<td>2.0875</td>
<td>8</td>
<td>.51497</td>
</tr>
<tr>
<td></td>
<td>Omaxe</td>
<td>2.5188</td>
<td>8</td>
<td>.83752</td>
</tr>
</tbody>
</table>
Paired Samples Correlations

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>DLF Ltd. &amp; Omaxe</td>
<td>8</td>
<td>.848</td>
</tr>
</tbody>
</table>

Paired Samples Test

Paired Differences

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>DLF Ltd.- Omaxe</td>
<td>-.43125</td>
<td>.48490</td>
<td>.17144</td>
<td>-.83664</td>
<td>-.02586</td>
<td>2.515</td>
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</tbody>
</table>

Table 2: Table representing quick ratios of both the companies in different years

Paired T-test:

Descriptive Statistics

<table>
<thead>
<tr>
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<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLF Ltd.</td>
<td>1.5688</td>
<td>.61131</td>
<td>8</td>
</tr>
<tr>
<td>Omaxe</td>
<td>1.2788</td>
<td>.37188</td>
<td>8</td>
</tr>
</tbody>
</table>

Correlations

<table>
<thead>
<tr>
<th></th>
<th>Dlf</th>
<th>Omaxe</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLF Ltd. Pearson Correlation</td>
<td>1</td>
<td>.827*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.011</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Omaxe   Pearson Correlation</td>
<td>.827*</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.011</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).

Paired Samples Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>DLF Ltd.</td>
<td>1.5688</td>
<td>8</td>
<td>.61131</td>
<td>.21613</td>
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<tr>
<td></td>
<td>Omaxe</td>
<td>1.2787</td>
<td>8</td>
<td>.37188</td>
<td>.13148</td>
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Paired Samples Correlations

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>DLF Ltd. &amp; Omaxe</td>
<td>8</td>
<td>.827</td>
</tr>
</tbody>
</table>

Paired Samples Test

Paired Differences

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>DLF Ltd. - Omaxe</td>
<td>.29000</td>
<td>.36905</td>
<td>.13048</td>
<td>-.01854</td>
<td>.59854</td>
<td>2.223</td>
</tr>
</tbody>
</table>
Table 3: Table representing operating profit of both the companies in different years

Paired T-test:

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLF Ltd.</td>
<td>46.5625</td>
<td>12.97781</td>
<td>8</td>
</tr>
<tr>
<td>Omaxe</td>
<td>20.7038</td>
<td>8.22444</td>
<td>8</td>
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</tbody>
</table>

Correlations

<table>
<thead>
<tr>
<th></th>
<th>DLF Ltd.</th>
<th>Omaxe</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLF Ltd.</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.004</td>
</tr>
<tr>
<td></td>
<td>N</td>
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</tr>
<tr>
<td>Omaxe</td>
<td>Pearson Correlation</td>
<td>.880**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.004</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>8</td>
</tr>
</tbody>
</table>

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

Paired Samples Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>DLF Ltd.</td>
<td>46.5625</td>
<td>8</td>
<td>12.97781</td>
</tr>
<tr>
<td></td>
<td>Omaxe</td>
<td>920.7038</td>
<td>8</td>
<td>8.22444</td>
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</table>

Paired Samples Correlations

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>8</td>
<td>.880</td>
<td>.004</td>
</tr>
</tbody>
</table>

Paired Samples Test

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 1</td>
<td>DLF Ltd. - Omaxe</td>
<td>25.85875</td>
<td>6.94647</td>
<td>2.45595</td>
<td>20.05136</td>
<td>31.66614</td>
<td>10.529</td>
</tr>
</tbody>
</table>

Table 4: Table representing net profit of both the companies in different years

Paired T-test:

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLF Ltd.</td>
<td>29.0088</td>
<td>23.77872</td>
<td>8</td>
</tr>
<tr>
<td>Omaxe</td>
<td>9.7512</td>
<td>5.90831</td>
<td>8</td>
</tr>
</tbody>
</table>

Correlations

<table>
<thead>
<tr>
<th></th>
<th>DLF Ltd.</th>
<th>Omaxe</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLF Ltd.</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.048</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>8</td>
</tr>
<tr>
<td>Omaxe</td>
<td>Pearson Correlation</td>
<td>-.710*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.048</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>8</td>
</tr>
</tbody>
</table>
A Study on Financials of Infrastructure Sector: 
A Comparison between DLF Ltd & Omaxe Ltd
■ Vikas Gupta
■ Nitin Saxena

*Correlation is significant at the 0.05 level (2-tailed).

Paired Samples Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>DLF Ltd.</td>
<td>29.0087</td>
<td>8</td>
<td>23.77872</td>
</tr>
<tr>
<td></td>
<td>Omaxe</td>
<td>9.7513</td>
<td>8</td>
<td>5.90831</td>
</tr>
</tbody>
</table>

Paired Samples Correlations

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>DLF Ltd. &amp; Omaxe</td>
<td>8</td>
<td>-.710</td>
</tr>
</tbody>
</table>

Paired Samples Test

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>DLF Ltd. - Omaxe</td>
<td>19.2575</td>
<td>9.9972</td>
<td>-4.38807</td>
<td>42.90307</td>
<td>1.926</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 5: Table representing issue details of both the companies

<table>
<thead>
<tr>
<th>COMPANY NAME</th>
<th>DETAILS</th>
<th>DLF Ltd.</th>
<th>OMAXE Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Issue</td>
<td>-</td>
<td>Book built</td>
<td>Book built</td>
</tr>
<tr>
<td>Issue Dates</td>
<td>Issue Opens</td>
<td>11-06-07</td>
<td>17-07-07</td>
</tr>
<tr>
<td></td>
<td>Issue Closes</td>
<td>14-06-07</td>
<td>20-07-07</td>
</tr>
<tr>
<td>Total Issue Size</td>
<td>No. of Shares</td>
<td>17,50,00,000</td>
<td>1,77,96,520</td>
</tr>
<tr>
<td>Price Bands</td>
<td>Lower (Rs)</td>
<td>500</td>
<td>265</td>
</tr>
<tr>
<td></td>
<td>Upper (Rs)</td>
<td>550</td>
<td>310</td>
</tr>
<tr>
<td></td>
<td>Total Amt (Rs)</td>
<td>9625</td>
<td>552</td>
</tr>
<tr>
<td>Issue Allocation</td>
<td>QIB</td>
<td>104400000</td>
<td>10500000</td>
</tr>
<tr>
<td></td>
<td>Non-Institutional</td>
<td>17400000</td>
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<td></td>
<td>Retail</td>
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<td>5250000</td>
</tr>
<tr>
<td>Max Shares</td>
<td>For Retail</td>
<td>180</td>
<td>320</td>
</tr>
<tr>
<td>Application Min &amp; Multiple Shares</td>
<td>10</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Registrar Name</td>
<td></td>
<td>Karvy Stock Broking limited</td>
<td>Intime Spectrum Registry Ltd</td>
</tr>
<tr>
<td>Lead Manager</td>
<td></td>
<td>Kotak, DSP Merrill Lynch</td>
<td>DSP Merrill Lynch</td>
</tr>
</tbody>
</table>
An Empirical Analysis of the Impact of Foreign Direct Investment and Foreign Institutional Investment on Indian Stock Market

Dr. Nitin Tanted*
Shirin Khan**

ABSTRACT
The present research aims to understand the impact of FII and FDI on stock market indices. Firstly, in order to test the stationarity of data and search for the nature of the relationship between these variables, the unit root test and Granger Causality test are implemented. The empirical analysis reveals that the lagged values of FDI inflows however do not Granger cause Indian Stock market, but FII inflows have Granger cause Indian Stock market. This indicates that FDI’s does not influence the stock market but FII have impact over it. From the current study it is also evident that there is a weak correlation between FDI & sensex and FDI & nifty and moderate positive correlation between FII & sensex and FII & Nifty.

1.1 CONCEPTUAL FRAMEWORK
Since 1990-1991, the government of India embarked on liberalization and economic reforms with a view of bringing about rapid and substantial economic growth and move towards globalization of economy. As a part of reforms process, the government under its new industrial policy revamped its foreign investment policy by permitting portfolio investment from abroad by foreign institutional investors and foreign direct investment in the Indian capital. The foreign investor's participation increases the liquidity of local markets, makes the base of investor broader, increases risk sharing, and thus lowers the cost of capital for investment.

Foreign Direct Investment (FDI) is a direct investment into production or business in a country by an individual or company from another country, either by purchasing company in the target country or by expanding operations of an existing business in that country. FDI is considered to be the most attractive type of capital flow for emerging economies as it is expected to bring latest technology and enhance production capabilities of the economy. FDI brings better technology and management, access to marketing networks and offers competition, the latter help Indian companies to improve, quite apart from being good for consumers. This efficiency contribution of FDI is much more important. Prominently, FDI is often more crucial and significant than the capital itself.

FII is defined as an institution organized outside India for the purpose of making investments into the Indian securities market under the regulations prescribed by SEBI. An investor or investment fund that is from or registered in a country outside of the one in which it is currently investing is known as Foreign Institutional Investment. Institutional investors include hedge funds, insurance companies, pension funds and mutual funds. FII is allowed to enter into our country only through stock exchange either in the form of equity or debt. Thus it makes an impact on rise or fall of major stock market indices, since FII is allowed to be purchased or sold daily. The daily transaction of FII is the reason behind the volatility in the stock markets and has strong impact on the various macro-economic variables and the economy as a whole. One of the most important features of the development of stock market in India in the last 20 years has been the growing participation of FIIs.

Foreign investment is also seen as an emerging measure of growing economic globalization. Investment has always been an issue for the developing economies such as India and so those countries have drafted measures to liberalize their

*Associate Professor and HOD Economics PIMR, Indore
**Alumini PIMR Indore
policies for welcoming investment from countries which are abundant in capital resources. The flow of FDI & FII accelerated the Indian economy and also gave opportunities to Indian industry for technological up-gradation, gaining access to global managerial skills and practices, optimizing utilization of human and natural resources and global competitive advantage with greater efficiency. Thus FDI and FII have become important instruments for international economic alliance and stimulation. Capital markets (NSE and BSE) are financial markets for the buying and selling of long-term debt- or equity-backed securities. These markets help in mobilizing the money in the economy.

1.2 REVIEW OF LITERATURE

The present study is an effort based on the concept of impact of FII on Indian stock market with the support of empirical data. The study considered some research work already done by the different scholars and researchers as follows:

Suhal Quasim Mir and Ishaq Ahmad Bhat (2014) stated that, the Indian stock markets have reached new heights and became more volatile making the research work in this dimension of establishing the link between FII and stock market volatility. This paper makes an attempt to develop an understanding of the dynamics of the trading behaviour of FII and effect on the Indian stock market especially in selected sectors, in addition to comparative analysis of preferred investment stock of FII.

Anubha Shrivastav (2013) stated that FII is the major players in the Indian stock market and their impact on the domestic market is increasing. Trading activities of FII and the domestic stock market turnover indicates that FII’s are becoming more important at the margin as an increasingly higher share of stock market turnover is accounted for by FII trading in India.

Dr. Syed Tabassum Sultan, Prof. S. Pardhasaradhi (July 2012) stated the casual relationship between FII and FDI investment & the Indian stock market represented by market capitalization of NSE. The objective of their research is to find the trends & patterns in the FDI and FII & Influence of FDIs and FII on movement of Indian stock exchange.

Rahul Dhim and Preeti Sharma (November 2013) has analyzed the impact of FDI on India Capital market. The inflow of capital in terms of foreign direct investment (FDI) has definitely impacted the economy as well as the capital markets. Foreign direct Investment has provided ample opportunities as far as technological up-gradation is concerned. From the study it is quite evident that there is strong degree of correlation between FDI and Nifty.

Maram Srikanth and Braj Kishore (March 2012) discussed about as to how the financial sector of an economy plays a vital role in attracting the Foreign Institutional Investment inflows. The study tries to examine the extent of the large volume of these flows and their impact on domestic effect of significant macroeconomic variables; inflation and exchange rate, money supply, WPI, Foreign exchange reserves, Index of Industrial Production on the flows of Foreign Institutional Investment in India. Author has tried to analyze the inter-relation between Foreign Institutional Investment and macro-economic variables.

Karan Walia, Dr. Rimi Walia and Monika Jai (2012) studied the impact of market opening to FII on Indian stock market behaviour. They empirically analyze the change of market return and volatility after the entry of FII to Indian capital market and found that while there is no significant change in the Indian stock market average returns; volatility is significantly reduced after India unlocked its stock market to foreign investors.

Saurabh Singh, Dr. L K Tripathi and Kirti Lalwani (2012) examine the primary factors responsible for affecting Bombay Stock Exchange (BSE) in India. Further paper attempts to investigate the relative influence of the factors affecting BSE and thereby categorizing them. It shows that dollar price or money exchange rate and Inflation has a great influence on BSE Sensex therefore, the research identifies the level of influence of exchange rate and rate of inflation on BSE Sensex.

Rajesh Chakrabarti (2001) concluded in their study that in the pre-Asian crisis period any change in FII was found to have a positive impact on the equity returns, whereas in the post-Asian crisis the reverse relationship was noticed. FII’s were a major portion of investments and their roles in determining the movement of share price and indices is considerably high. The movement of indices in India depends only on the trade done in limited number of stocks. Thus, when the FII’s frequently buy and sell stocks, it leads to volatility of the market.
Mihir Dash (2011) stated the presence of seasonal effects in monthly returns has been reported in several developed and emerging stock markets. The study indicates a highly significant negative impact of market crashes on stock market returns. The study suggests that the incidence of market crashes reduces the seasonal effects.

1.3 RATIONALE OF THE STUDY
The Foreign institutional investors (FIIs) and FDI have emerged as important players in the Indian capital market over the period. However, the eminent concern in the matter is whether these foreign investors direct the movement of Indian stock market or not. This paper makes an attempt to understand the impact of FII and FDI on Indian stock market with the support of empirical data for the period 2009-2014.

The present study also focuses on FIIs and FDI investment pattern in the Indian stock market. It examines the factors expected to affect the investment decisions of FIIs and FDI. In this direction the present study has been carried out to analyze the impact of FII on Indian stock market by studying relationship between FIIs and FDIs and NSE (National Stock Exchange).

1.4 OBJECTIVE OF THE STUDY
- To determine the relationship between FIIs and FDI’s and Indian stock market index (Nifty).
- To study the impact of Foreign Institutional Investment (FII) on Indian stock market (Nifty).
- To study the impact of Foreign Direct Investment (FDI) on Indian stock market (Nifty).

RESEARCH METHODOLOGY

2.1 The Study
The study is empirical in nature. The study is an attempt to understand the impact on FDIs and FIIs on Indian stock market.

2.2 The Sample
The data taken for the study is secondary in nature. The sample size is limited and constitutes of monthly FII and FDI flows data and the returns of NIFTY and Sensex for 5 years.

2.3 Tools for data collection
This study is based on secondary data. The required data related to FDI and FII have been collected from website of SEBI and DIPP. The BSE Sensex and CNX Nifty data is collected from the websites of bseindia and nseindia respectively. Daily closing index value are taken and averaged to get the index value for each year, which is considered as more representative figure of index for the entire year rather any one day’s/month’s closing figure of the index. The present study considers 5 years data starting from 2009 to 2014.

2.4 Tools for Data Analysis
In the course of analysis in the study, descriptive statistics, correlation statistics, regression statistics, ADF and unit root test and granger causality test have been used. The uses of all these tools at different places have been made in the light of requirement of analysis.

EVIWES
Eviews (Econometric Views) is a statistical package for Windows, used mainly for time-series oriented econometric analysis. Eviews can be used for general statistical analysis and econometric analyses, such as cross-section and panel data analysis and time series estimation and forecasting. Eviews combines spreadsheet and relational database technology with the traditional tasks found in statistical software, and uses a Windows GUI. Eviews can be useful include: scientific data analysis and evaluation, financial analysis macroeconomic forecasting, simulation, sales forecasting, and cost analysis.

1. Augmented Dickey-Fuller
In statistics and econometrics, an Augmented Dickey–Fuller test (ADF) is a test for a unit root in a time series sample. It is an augmented version of the Dickey–Fuller test for a larger and more complicated set of time series models.

A Granger causality test:
The Granger causality test is a statistical hypothesis test for determining whether one time series is useful in forecasting another. Ordinarily, regressions reflect correlations, but Granger argued that causality in economics could be
reflected by measuring the ability of predicting the future values of a time series using past values of another time series.

**B. Unit Root Test:**
Unit Root Test is used to examine the stationarity of each individual time series data that, whether it is a stationary or not.

2. **Correlation**
The correlation is one of the most common and most useful statistics. A correlation is a single number that describes the degree of relationship between two variables. The correlation coefficient may take on any value between plus and minus one. 

-1.00 < r <+1.00 the sign of the correlation coefficient (+, -) defines the direction of the relationship, either positive or negative. A positive correlation coefficient means that as the value of one variable increases, the value of the other variable increases; as one decreases the other decreases. A negative correlation coefficient indicates that as one variable increases, the other decreases, and vice-versa. Taking the absolute value of the correlation coefficient measures the strength of the relationship.

3. **Regression**
Regression is a statistical measure that attempts to determine the strength of the relationship between one dependent variable (usually denoted by Y) and a series of other changing variables (known as independent variables). In the current study to study the linear relationship between FDI & FII and Sensex & Nifty correlation is applied. The multiple regression analysis is a statistical technique used to evaluate the effects of two or more independent variables on a single dependent variable. In the current paper attempt is made to study the impact of FDI & FII on Sensex and Nifty. So FDI & FII are considered as the two independent variables and the dependent variables are Sensex and Nifty.

**RESULT AND ANALYSIS**
The trends and relationship between FDI and FII’s and Indian Stock was measured on the basis of various metrics.

3.1 **Unit root test**
Prior to implementing the Granger causality test, econometric methodology needs to examine the stationarity for each individual time series since most macro economic data are non-stationary, i.e., they tend to exhibit a deterministic and/or stochastic trend. A series is said to be (weakly or covariance) stationary if the mean and variance are time-invariant and the autocovariances of the series between two time periods depend only on the interval. Any series that is not stationary is said to be non stationary. A non stationary time series will have a time dependent mean or a variance or both. It is important to make sure that the variables are stationary, because if they are not, the standard assumptions for asymptotic analysis in the Granger test will not be valid.

The study uses the Augmented Dickey-Fuller to conduct unit root test on the variables i.e. FDI, FII, NIFTY and SENSEX and the lag lengths chose was 2 based on Schwarz Information Criterion (SIC).

**Unit root test of FDI:**
The ADF test is conducted for FDI to test the stationary of the series. The results of the ADF test are exhibited in Table below:

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Test Statistic</th>
<th>Critical Value (1%)</th>
<th>Critical Value (5%)</th>
<th>Critical Value (10%)</th>
<th>Probability Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>-13.48</td>
<td>-3.52</td>
<td>-2.90</td>
<td>-2.58</td>
<td>&lt; 0.05</td>
</tr>
</tbody>
</table>

**Table 1:** The result of ADF test implies that the ADF test statistic value (-13.48) is less than the test critical values at 1%(-3.52), 5% (-2.90) and 10%(-2.58) respectively with the probability value less than 5%. Hence, the null hypothesis is rejected.

Based on the results it can be concluded that data is stationary in nature. Since the data is stationary,
mean and variance are time-invariant and the autocovariances of the series between two time periods depend only on the interval. Reliability of the data will ensure further evaluation through different test and tools.

**Unit root test of NIFTY:**
The ADF test is conducted for NIFTY to test the stationary of the series. The results of the ADF test are exhibited in Table 3:
The above table 3 reflects the result of ADF implies that, the ADF test statistic value (-6.61) is less than the test critical values at 1%(-3.52), 5% (-2.90) and 10%(-2.58) respectively with the probability value less than 5%. Hence, the null hypothesis is rejected.
Based on the results it can be concluded that data is stationary in nature. Since the data is stationary, mean and variance are time-invariant and the autocovariances of the series between two time periods depend only on the interval. Reliability of the data will ensure further evaluation through different test and tools.

**Unit root test of SENSEX:**
The ADF test is conducted for SENSEX to test the stationary of the series. The results of the ADF test are exhibited in Table 1.

The above table 4 reflects the result of ADF implies that, the ADF test statistic value (-7.91) is less than the test critical values at 1%(-3.52), 5% (-2.90) and 10%(-2.58) respectively with the probability value less than 5%. Hence, the null hypothesis is rejected.

The result of the unit root test shows that all the variables are stationary at 5 percent level of significance. Since the data is stationary, mean and variance are time-invariant and the autocovariances of the series between two time periods depend only on the interval. Reliability of the data will ensure further evaluation through different test and tools

**3.2 Granger Causality Test**
Once the stationarity of data is tested, the next logical step for study purpose is to examine the Granger-causal relationship among the variables. This causality test proposed by Granger (1969) assumed that the information relevant to the prediction of the respective variables is contained solely in the time series data variables. X is said to “Granger-cause” Y if and only if the forecast of Y is improved by using the past values of X together with the past values of Y, Granger causality distinguishes between unidirectional and bi directional causality. Unidirectional causality is said to exist from X to Y if X causes Y but Y does not cause X. If neither of them causes the other, then the two time series are statistically independent.

**Granger Causality Test between Nifty and FDI**

**Granger Causality Test Results:**
Since the reliability of results of the Granger causality test depends on whether the variables are stationary or not, the study first tested unit root of the variables using Augmented Dickey-Fuller test. The result of the unit root test shows that all the variables are stationary.

The results of pair-wise Granger Causality tests are reported in Table 5. It is observed that Nifty does not Granger Cause the FDI because the probability value is greater than 5% (0.98330). This implies that the NIFTY is not influenced by the trend of FDI in the country. It signals that the returns expected from this market will not have to be analyzed and accounted for after carefully understanding the investment pattern of FDI in the market. So it is clear that the trend of FDI does not influence Nifty and its returns. Similarly, the FDI and the Nifty Index does not have relationship between each other since the probability value (0.94) is greater than 5%. So, as per the rule of thumb, the null hypothesis is accepted that there is no relationship between the FDI and Nifty Index.

**Granger Causality Test between Nifty and FII**

**Granger Causality Test Results:**
The results of pair-wise Granger Causality tests are reported in Table 6. It is observed that FII Granger Cause Nifty because the probability value is less than 5 % (0.04). This implies that the NIFTY is influenced by the trend of FII in the country. It signals that the returns expected from this market will have to be analyzed and accounted for after carefully understanding the investment pattern of FII in the market. It is a clear trend of FII being attracted into the Indian stock market and influencing the returns generated from it. But, NIFTY does not Granger Cause FII means FII is not influenced by the stock market trend since the
probability value (0.94) is greater than 5%. So, as per the rule of thumb, the null hypothesis is accepted that there is no impact of Nifty Index on FII’s.

**Granger Causality Test between FDI and SENSEX**

**Granger Causality Test Results:**
The results of pair-wise Granger Causality tests are reported in Table 7. It is observed that SENSEX does not Granger Cause the FDI because the probability value is greater than 5% (0.9901). This implies that the SENSEX is not influenced by the trend of FDI in the country. It signals that the returns expected from this market will not have to be analyzed and accounted for after carefully understanding the investment pattern of FDI in the market. So it is clear that trend of FDI does not influence SENSEX and returns generated from it. Similarly, the FDI and the SENSEX does not have relationship between each other because the probability value (0.99) is greater than 5%. So, as per the rule of thumb, the null hypothesis is accepted that there is no relationship between the FDI and SENSEX.

**Granger Causality Test between FII and SENSEX**

**Granger Causality Test Results:**
The results of pair-wise Granger Causality tests are reported in Table 8. It is observed that FII Granger Cause Sensex because the probability value is less than 5% (0.03). This implies that the sensex is influenced by the trend of FII in the country. It signals that the returns expected from this market will have to be analyzed and accounted for after carefully understanding the investment pattern of FII in the market. It is a clear trend of FII being attracted into the Indian stock market and influencing the returns generated from it. But, Sensex does not Granger Cause FII means FII is not influenced by the stock market trend because the probability value (0.25) is greater than 5%. So, as per the rule of thumb, the null hypothesis is accepted that there is no impact of Sensex on FII’s.

### 3.3 Correlation

Correlation coefficient is a statistical measure that determines the degree to which two variable’s movements are associated. Correlation coefficient value ranges from -1 to 1. Negative value of correlation indicates: if one variable increases in its values, the other variable decreases in its value and positive value indicates: if one variable increases in its values the other variable also increases in its value.

#### Correlation between FDI and NIFTY

<table>
<thead>
<tr>
<th>Amount of FDI inflows (In Rs. Crore)</th>
<th>CNX Nifty</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNX Nifty</td>
<td>0.190208667</td>
</tr>
</tbody>
</table>

Correlation statistics in table point out that FDI’s are weakly positively correlated with nifty index in the period under study. In positive correlation, values of two variables changes in the same direction. Both are moving in the same direction, i.e. If the FDI increases, NIFTY index also increases. Hence based on result it can be concluded that there is very weak positive correlation between FDI and NIFTY (0.190208667).

#### Correlation between FDI and SENSEX

<table>
<thead>
<tr>
<th>Amount of FDI inflows (In Rs. Crore)</th>
<th>SENSEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>SENSEX</td>
<td>0.21488</td>
</tr>
</tbody>
</table>

Correlation statistics in table point out that FDI’s are weakly positively correlated with SENSEX index in the period under study. In positive correlation, values of two variables change in the same direction. Both are moving in the same direction, i.e. If the FDI increases, NIFTY index also increases. Hence based on result it can be concluded that there is very weak positive correlation between FDI and SENSEX (0.21488).

#### Correlation between FII and NIFTY

<table>
<thead>
<tr>
<th>Amount of FII inflows (In Rs. Crore)</th>
<th>CNX Nifty</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNX Nifty</td>
<td>0.363302</td>
</tr>
</tbody>
</table>

Correlation statistics in table point out that FII’s are positively correlated with nifty index in the period under study. In positive correlation, values of two variables change in the same direction. Both are moving in the same direction, i.e. if the FII increases NIFTY index also increases. Hence based on result it can be concluded that there is moderate positive correlation between FII and NIFTY (0.363302).
Correlation between FII and SENSEX

<table>
<thead>
<tr>
<th>Amount of FII inflows (In Rs. Crore)</th>
<th>SENSEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of FII inflows</td>
<td>SENSEX</td>
</tr>
<tr>
<td>1</td>
<td>0.371618711 1</td>
</tr>
</tbody>
</table>

Correlation statistics in the table point out that FII's are positively correlated with SENSEX index in the period under study. In positive correlation, values of two variables change in the same direction. Both are moving in the same direction, i.e. if the FII increases SENSEX index also increases. Hence based on result, it can be concluded that there is moderate positive correlation between FII and SENSEX (0.371618711).

3.4 Regression

Impact of FDI on NIFTY

<table>
<thead>
<tr>
<th>Regression Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
</tr>
<tr>
<td>R Square</td>
</tr>
<tr>
<td>Adjusted R Square</td>
</tr>
<tr>
<td>Standard Error</td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

Independent Variable: FDI
Dependent Variable: NIFTY

The table is the model summary which reports the strength of the relationship between the model and the dependent variable. R, correlation coefficient, is the linear correlation between the observed and model predicted value of the dependent variable. Its large value indicates a strong relationship. R Square, the coefficient of determination, is the squared value of the correlation coefficients. The value of R2 is 0.036. In other words, the dependent variables FDI is able to only explain around 3% variation of the dependent variable (NIFTY).

ANOVA

<table>
<thead>
<tr>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Significance F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression 1</td>
<td>3210720.419</td>
<td>3210720</td>
<td>2.6276191</td>
<td>0.11</td>
</tr>
<tr>
<td>Residual 70</td>
<td>85533869.69</td>
<td>1221912</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total 71</td>
<td>88744590.1</td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>5124.4674</td>
<td>312.5607671</td>
<td>16.39511</td>
</tr>
<tr>
<td>X Variable 1</td>
<td>0.042458125</td>
<td>0.02619266</td>
<td>1.620993</td>
</tr>
</tbody>
</table>

The ANOVA table tests the acceptability of the model from a statistical perspective. The Regression row displays information about the variation accounted for by the model. The Residual row displays information about the variation that has not been accounted by the model. The regression much is less than residual sums of squares, which indicates that around 3% of the variation in NIFTY is explained by the model. However, F statistic is not found significant, since the p value (0.000) more than 0.05.

Testing of Hypothesis

The null hypothesis and alternative hypothesis with respect to NIFTY and FDI can be stated as follows:

H01: There is no significant impact of FDI on NIFTY index.

H1: There is significant impact of FDI on NIFTY index.

The p-value related to FDI shown in table 5, is .000 more than 0.05 so null hypothesis H01 is not accepted. Hence it is concluded that flow of FDIs to India and NIFTY trend are independent. And there is no significant impact of FDI on Nifty Index.

Impact of FDI on SENSEX

<table>
<thead>
<tr>
<th>Regression Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
</tr>
<tr>
<td>R Square</td>
</tr>
<tr>
<td>Adjusted R Square</td>
</tr>
<tr>
<td>Standard Error</td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

Independent Variable: FDI
Dependent Variable: SENSEX
The table is the model summary which reports the strength of the relationship between the model and the dependent variable. R, correlation coefficients, is the linear correlation between the observed and model predicted value of the dependent variable. Its large value indicates a strong relationship. R Square, the coefficient of determination, is the squared value of the correlation coefficients. The value of R^2 is 0.04. In other words the dependent variables FDI is able to only explain around 4% the variation of the dependent variable (SENSEX).

### ANOVA

<table>
<thead>
<tr>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Significance F</th>
</tr>
</thead>
<tbody>
<tr>
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<td>47601686.32</td>
<td>47601686.3</td>
<td>3.388604519</td>
<td>0.07</td>
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<tr>
<td>Residual</td>
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<td>14047578</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>103093214</td>
<td>103093214</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
<th>Lower 95.0%</th>
<th>Upper 95.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>16956.05857</td>
<td>1059.778611</td>
<td>15.9996233</td>
<td>0.00</td>
<td>14842.39681</td>
<td>19069.72034</td>
<td></td>
</tr>
<tr>
<td>X Variable 1</td>
<td>0.163482299</td>
<td>0.088809678</td>
<td>1.84081626</td>
<td>0.07</td>
<td>-0.013643016</td>
<td>0.340607614</td>
<td>-0.013643016</td>
</tr>
</tbody>
</table>

The ANOVA table, tests the acceptability of the model from a statistical perspective. The Regression row displays information about the variation accounted for by the model. The Residual row displays information about the variation that has not been accounted by the model. The regression much is less than residual sums of squares, which indicates that around 3% of the variation in SENSEX is explained by the model. However, F statistic is not found significant, since the p value (0.000) more than 0.05.

### Testing of Hypothesis

The null hypothesis and alternative hypothesis with respect to SENSEX and FDI can be stated as follows:

H02: There is no significant impact of FDI on SENSEX index.
Ha2: There is significant impact of FDI on SENSEX index

The p-value related to FDI shown in table 5, is more than 0.05 so null hypothesis H01 is not accepted. Hence it is concluded that Flow of FDIs in to India and SENSEX trend are independent and there is no significant impact of FDI on Sensex Index.

### Impact of FII on NIFTY

**Regression Statistics**

| Multiple R | 0.363302023 |
| R Square   | 0.13198836  |
| Adjusted R Square | 0.11958193 |
| Standard Error | 1049.0223    |
| Observations  | 72          |

Independent Variable: FII
Dependent Variable: NIFTY

The table is the model summary reports the strength of the relationship between the model and the dependent variable. R, correlation coefficients, is the linear correlation between the observed and model predicted value of the dependent variable. Its large value indicates a strong relationship. R Square, the coefficient of determination, is the squared value of the correlation coefficients. The value of R^2 is 13. In other words the dependent variables FII is able to only explain around 13% the variation of the dependent variable (NIFTY).

### ANOVA

<table>
<thead>
<tr>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Significance F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>11713252.89</td>
<td>11713252.89</td>
<td>10.64408</td>
<td>0.00</td>
</tr>
<tr>
<td>Residual</td>
<td>77031337.22</td>
<td>1100447.875</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>88744590.1</td>
<td>88744590.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
<th>Lower 95.0%</th>
<th>Upper 95.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>5270.872124</td>
<td>156.702866</td>
<td>33.63609258</td>
<td>0.00</td>
<td>4958.338116</td>
<td>5583.406133</td>
<td>5583.406133</td>
</tr>
</tbody>
</table>
The ANOVA table tests the acceptability of the model from a statistical perspective. The Regression row displays information about the variation accounted for by the model. The Residual row displays information about the variation that has not been accounted by the model. The regression much is less than residual sums of squares, which indicates that around 13% of the variation in NIFTY is explained by the model. However, F statistic is found significant, since the p value (0.000) less than 0.05.

**Testing of Hypothesis**

The null hypothesis and alternative hypothesis with respect to NIFTY and FII can be stated as follows:

H03: There is no significant impact of FII on NIFTY index.

H13: There is significant impact of FII on NIFTY index

The p-value related to FII shown in table 5, is 0.000 more than 0.05 so null hypothesis H01 is not rejected. Hence it is concluded that Flow of FIIs in to India and NIFTY trend are dependent and there is significant impact of FII's on Nifty.

**Impact of FII on SENSEX**

<table>
<thead>
<tr>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Significance F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
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<td>142372210.2</td>
<td>142372210.2</td>
<td>11.21596</td>
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<tr>
<td>Residual</td>
<td>70</td>
<td>888559936.6</td>
<td>12693713.38</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>1030932147</td>
<td></td>
<td></td>
</tr>
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</table>

**ANOVA**

<table>
<thead>
<tr>
<th>Df</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
<th>Lower 95.0%</th>
<th>Upper 95.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>17634.15074</td>
<td>532.2143575</td>
<td>33.13354946</td>
<td>0.00</td>
<td>16572.68268</td>
<td>18695.61879</td>
<td>16572.68268</td>
<td>18695.61879</td>
</tr>
<tr>
<td>X Variable 1</td>
<td>0.099854769</td>
<td>0.02981608</td>
<td>3.34902407</td>
<td>0.00</td>
<td>0.040388474</td>
<td>0.159321064</td>
<td>0.040388474</td>
<td>0.159321064</td>
</tr>
</tbody>
</table>

The ANOVA table tests the acceptability of the model from a statistical perspective. The Regression row displays information about the variation accounted for by the model. The Residual row displays information about the variation that has not been accounted by the model. The regression much is less than residual sums of squares, which indicates that around 13% of the variation in SENSEX is explained by the model. However, F statistic is found significant, since the p value (0.000) less than 0.05.

**Testing of Hypothesis**

The null hypothesis and alternative hypothesis with respect to SENSEX and FII can be stated as follows:

H04: There is no significant impact of FII on SENSEX index.

H14: There is impact significant of FII on SENSEX index

The p-value related to FII shown in table 5, is 0.000 more than 0.05 so null hypothesis H01 is not rejected. Hence it is concluded that Flow of FIIs in to India and SENSEX trend are dependent. Means there is significant impact of FII on Sensex Index and sensex is influenced by the FII's Flows in India.
SUGGESTIONS AND CONCLUSIONS

4.1 Suggestions
This empirical study has been undertaken to identify whether there is a relationship with FDI, FII's and NIFTY and SENSEX index along with correlation co-efficient, ADF, regression and analysis of variance (ANOVA) on the basis of analysis and findings, the following suggestions can be made to the investors.

A detailed understanding of the nature and determinants of FII flows to Indian stock market would help investors to evaluate the risks and benefits of foreign portfolio investment in India in better way.

Government should set a minimum limit as well as maximum limit, within which FII invest. In India, in order to avoid volatility in Indian stock market (sensex & nifty). The traders should not enter when the market will have volatility condition.

The investors must know the trend of market and should analyze the amount and trend of FDI’s and FII’s when the securities are purchased for better return and safety.

Investment in the stock market has higher risk but when the returns are compared, it brings high returns comparatively to other source of investment.

The extent of FII participation in Indian markets has helped in lowering cost of capital in Indian industries.

4.2 Conclusion
The flow of FDI & FII accelerated the Indian economy and also gave opportunities to Indian industry for technological up-gradation, gaining access to global managerial skills and practices, optimizing utilization of human and natural resources and global competitive advantage with greater efficiency. Most importantly FDI is central for India’s integration into global production chains which involves production by MNCs spread across locations all over the world.

The study observed that investments by FII’s and the movements of Sensex are quite closely correlated in India and FII’s wield significant influence on the movement of sensex and nifty. According to findings and results, study concluded that FII did have significant impact on the Indian capital market. Therefore, the alternate hypothesis is accepted. FII’S have significant impact on BSE Sensex and Nifty. However there are other major factors that influence the stock market, but FII is definitely one of the factors. This signifies that market rise with increase in FII’s and collapse when FII’s are withdrawn from the market. Moreover, the findings of this study also indicate that Foreign Institutional Investors have emerged as the most dominant investor group in the domestic stock market in India.

The present research aims to understand the impact of FII and FDI on stock market indices. Firstly in order to test the stationarity of data and search for the nature of the relationship between these variables, the unit root test and Granger Causality test are implemented. The empirical analysis reveals that the lagged values of FDI inflows however do not Granger cause Indian Stock market. But FII inflows have Granger cause Indian Stock market. This indicates that FDI’s does not influence the stock market but FII have impact over it. From the current study it is also evident that there is a weak correlation between FDI & sensex and FDI & nifty and moderate positive correlation between FII & sensex and FII& Nifty. Hence it can be concluded that the impact of flow of FDI on Indian stock market is not significant where as FII has a significant impact on Indian stock market.

4.3 Implications
Apart from the money that is brought in, FII investment is a testament of increasing global investor confidence in a particular economy and stock market. For a country like India this money brought in by the FII’s adds to the foreign reserves which can be used to import oil, machinery etc. With increased FII investment in a country and the increased confidence about the economy, FDI (Foreign Direct Investors) follow suit. FII is thus an important economic indicator which can help us analyze a particular stock and the whole stock market in a better manner. FII’s are beneficial for Indian economy and also for stock market.

Investors can consider this study and analyze different effects of FDI and FII on Indian stock market while making investment decision. It especially helps those investors who are not willing to take much risk and are more concerned about
returns.
The study can also help the government to decide whether it is beneficial or not for the development of our country to allow FDI and FII in other sectors.

4.4 Limitations
Since for the study, data taken is only of 5 years which is a limited tenure to explain the impact of FDI and FII on stock market.
The subject is very vast and the data is taken mainly from various websites. It does not contain information from magazines, articles, journals, etc.
As the study is purely based on past years performances, It does not contain any current updates related to FDI and FII on stock market.
Study is only considering the impact of FDI and FII on Indian stock market. These are not only the factors which can affect Indian stock market. There are more other factors like GDP, exchange rate, interest rate, gold and silver price, crude oil price, etc.
The study is based on secondary data which is considered as a quantitative aspect and not qualitative aspect.

4.5 Scope
It is a continuous study as the data is ever-changing because the flow of FDI and FII’s changes every year and its impact as well.
The comparative study of pre and post liberalization can also be done in order to analyze the impact of FDI and FII on pre liberalization period and post liberalization period.
The Indian economy is highly volatile which is influenced by number of factors like GDP, inflation, exchange rate, gold prices, silver prices, and FII etc. Present study only shows impact of FDI and FII. Hence there is a scope that further study can be done of other factors (GDP, inflation, and exchange rate, gold and silver price) which influence stock market.

REFERENCES


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www.bseindia.com
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www.sebi.org.in
www.dipp.nic.in
### Table 1

Null Hypothesis: FDI has a unit root  
<table>
<thead>
<tr>
<th>t-Statistic</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Augmented Dickey-Fuller test statistic</td>
<td>-13.48573</td>
</tr>
<tr>
<td>Test critical values:</td>
<td></td>
</tr>
<tr>
<td>1% level</td>
<td>-3.527045</td>
</tr>
<tr>
<td>5% level</td>
<td>-2.903566</td>
</tr>
<tr>
<td>10% level</td>
<td>-2.589227</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI(-1)</td>
<td>-1.450094</td>
<td>0.107528</td>
<td>-13.48573</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>-0.215336</td>
<td>0.065596</td>
<td>-3.282767</td>
<td>0.0016</td>
</tr>
</tbody>
</table>

### Table 2

Null Hypothesis: FII has a unit root  
<table>
<thead>
<tr>
<th>t-Statistic</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Augmented Dickey-Fuller test statistic</td>
<td>-8.055013</td>
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<tr>
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</tr>
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<td>1% level</td>
<td>-3.527045</td>
</tr>
<tr>
<td>5% level</td>
<td>-2.903566</td>
</tr>
<tr>
<td>10% level</td>
<td>-2.589227</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FII(-1)</td>
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<td>0.121245</td>
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<td>-0.261027</td>
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<td>0.4271</td>
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### Table 3

Null Hypothesis: NIFTY has a unit root  
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<thead>
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<th>t-Statistic</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Augmented Dickey-Fuller test statistic</td>
<td>-6.619729</td>
</tr>
<tr>
<td>Test critical values:</td>
<td></td>
</tr>
<tr>
<td>1% level</td>
<td>-3.527045</td>
</tr>
<tr>
<td>5% level</td>
<td>-2.903566</td>
</tr>
<tr>
<td>10% level</td>
<td>-2.589227</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIFTY(-1)</td>
<td>-0.783838</td>
<td>0.118409</td>
<td>-6.619729</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>-0.013142</td>
<td>0.006256</td>
<td>-2.100549</td>
<td>0.0394</td>
</tr>
</tbody>
</table>

### Table 4

Null Hypothesis: SENSEX has a unit root  
<table>
<thead>
<tr>
<th>t-Statistic</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Augmented Dickey-Fuller test statistic</td>
<td>-7.91422</td>
</tr>
<tr>
<td>Test critical values:</td>
<td></td>
</tr>
<tr>
<td>1% level</td>
<td>-3.527045</td>
</tr>
<tr>
<td>5% level</td>
<td>-2.903566</td>
</tr>
<tr>
<td>10% level</td>
<td>-2.589227</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SENSEX(-1)</td>
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<td>-7.91422</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>0.017255</td>
<td>0.007777</td>
<td>2.220835</td>
<td>0.0297</td>
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### Table 5

Null Hypothesis:  
<table>
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<tr>
<th>Obs</th>
<th>F-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIFTY does not Granger Cause FDI</td>
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<td>FDI does not Granger Cause NIFTY</td>
<td>0.05776</td>
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Table 6

<table>
<thead>
<tr>
<th>Null Hypothesis:</th>
<th>Obs</th>
<th>F-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>69</td>
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</tr>
<tr>
<td>FII does not Granger Cause NIFTY</td>
<td></td>
<td>0.44351</td>
<td>0.0437</td>
</tr>
</tbody>
</table>

Table 7

<table>
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<tr>
<th>Null Hypothesis:</th>
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<th>Prob.</th>
</tr>
</thead>
<tbody>
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Table 8

<table>
<thead>
<tr>
<th>Null Hypothesis:</th>
<th>Obs</th>
<th>F-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>FII does not Granger Cause SENSEX</td>
<td></td>
<td>2.43254</td>
<td>0.0357</td>
</tr>
</tbody>
</table>
A Study on the Effect of Work Stress on Quality of Work Life in Retail Sector-with Special Reference to NCR

Ms. Abha Sharma*
Dr. A.K Tyagi**
Dr Vibhuti Tyagi***

ABSTRACT

The business world today is changing at the speed of light and so is competition. If organization is to survive and grow, they have to adapt fast to the changing environment. Work stress plays an important role in the organization. People are stressed from overwork, job insecurity, information overload, and the increasing pace of life, which influences the Quality of Work Life and decides the performance of the individuals without which the organization cannot achieve their targets. Organizations are required to adopt a strategy to improve the employees’ “Quality of Work Life” to satisfy both the organizational objectives and employee needs. The success of any organization is highly dependent on how it attracts, recruits, motivates and retains its workforce. People want meaningful work that enhances their overall well-being. This study focus to analyze the Effects of Work Stress on the Quality of Work Life in Retail Sectors in NCR.

1. INTRODUCTION

1.1 Work Stress

We are living in an era of high competition along with lots of expectations from ourselves as well as from our surroundings, and when we are not able to fulfill it or get it, we feel frustrated and it creates a stage of Stress. Stress is a condition of strain that has direct bearing on emotions, thought process and physical condition of a person. Organized retailing is highly manpower intensive as employees have to balance the expectations of management and customers. For employees, stress regularly contributes to the burnout, risk of accidents and illness like hypertension, coronary heart disease and severe depression. This also leads to poor quality of performance, lower job satisfaction, high turnover and increased work absence or lack of concentration on the job. Work stress challenges (workforce aging, increasingly competitive labour market, information technology and rising benefit costs etc create new possibilities for employers to achieve organizational performance goals while numerous employees are experiencing a reduced Quality of Work-Life. This is reflected most prominently in work-life imbalance and job stress. Both employers and employees are under pressure to find ways to improve the Quality of Work Life. Occupational stress is a widespread construction where job related issues interact with the operator to either enhance or disrupt the physiological or psychological conditions.

Factors causing Work Stress

These variables are considered as the factors which causes stress at workplace.

Factor 1:- Work Pressure
Factor 2:- Discrimination at Workplace.
Factor 3:- Interpersonal relation between managers and employees
Factor 4:- Extended working hours without compensation

1.2 Quality of work life

Human resource is an asset to the organization; an unsatisfied employee is the first enemy of the organization. To sustain in the competitive market, organizations have to maintain skilled employees. Employees have to be treated as an asset not liability and this is possible only through the humanized job design process, known as Quality of Work Life. The success and survival of any

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organization depend upon the potential and the motivation of the employees working in it. The motivation of the employees is directly associated with the Quality of Work Life (QWL) they experience in the organization. With the increasing shift of the economy towards knowledge economy, the meaning and Quality of Work-Life has undergone a drastic change. Quality of Work Life is basically quality of life that the employees experiences at their work place. In an organization, a high level of Quality of Work-Life is necessary to continue to attract and retain employees. It refers to the favorableness or unfavorableness of a job environment for the people working in an organization. QWL like programs usually emphasize employee skill development, the reduction of occupational stress and development of more cooperative labour management relations. Quality of Work Life deals with various aspects of work environment, which facilitates the human resource development efficiently. Thus, Quality of Work Life helps in the development of human resources.

In the present scenario, needs and aspirations of the employees are changing. Employers are now redesigning jobs for better QWL. Government and organization are doing various efforts like providing a salary increase, paying an annual bonus, giving grace to the brilliant workers in jobs and providing various facilities for workers. But these efforts are still not able to fulfill the will of some workers, because each worker has a different assessment in assessing their respective interests.

“The overriding purpose of QWL is to change the climate at work so that the human technological-organizational interface leads to a better quality of work life.” - Luthans

In the service sector, the Quality of Work Life depends on the satisfaction in a job, autonomy to prioritize the work, challenging task, motivation by the organisation and organisational commitment. Service industries are becoming increasingly important to the economies of developed nations (S. S. Tzafrir 2007). Walton (1974) suggested eight major conceptual areas for understanding Quality of Work Life. These were adequate and fair compensation, safe and healthy working conditions, development of human competencies, growth and security, social integration, constitutionalization and total life space and social reliance.

2. LITERATURE REVIEW

Quality of Work Life was the term actually introduced in the late 1960’s. From that period till now the term is gaining more and more importance everywhere, at every work place. Initially Quality of Work Life was focusing on the effects of employment on the general well being and the health of the workers. But now its focus has been changed. QWL is a concept that makes an environment which motivates the employees towards work and obviously it makes a reason about employee, work and its organization. Various authors and researchers have proposed models of Quality of Working Life which include a wide range of factors.

Baba and Jamal (1991) listed what they described as typical indicators of Quality of Working Life, including: job satisfaction, job involvement, work role ambiguity, work role conflict, work role overload, job stress, organizational commitment and turn-over intentions. Baba and Jamal also explored reutilization of job content, suggesting that this facet should be investigated as part of the concept of Quality of Working Life.

Thomas Wyatt and Chat Yue Wah (2001) examined the perception of QWL with a sample size of 332 managerial executives. Results from Factor analysis suggest four dimensions which are named favorable work environment, personal growth and autonomy, nature of job and stimulating opportunities and co-workers. The overall findings support the conceptualizations of factors involved in perception of QWL.

W.N. Thalang et al (2010) studied on Quality of Work Life indicators as a corporate social responsibility of electrical and electronics private Organizations in Thailand. Objective of the research was to find out the Quality of Work Life Indicators as a Corporate Social Responsibility. It is a documentary research and data was collected.

by the in-depth interview with experts and specialist and multiple research method. Health environment, total life span, work life balance, adequate and fair compensation, social integration support used as dimensions of QWL and four major dimensions of CSR, namely: economic, environmental, social and ethics were used as a parameters. The result showed that QWL indicates perception about for a more effective CSR, developing a good Quality of Work Life (QWL) is crucial.

Aketch et al. (2012) explained that QWL is a philosophy, a set of principles, which holds that people are the most important resource in the organization as they are trustworthy, responsible, and capable of making valuable contributions, and they should be treated with dignity and respect. Noor, S.M. and Abdullah, M.A. (2012) study indicates that there is a significant relationship between job satisfaction and Quality of Work Life. Job satisfaction is found to carry more weightage in explaining the relationship among job satisfaction, job involvement and job security with Quality of Work Life.

Jerome. S. (2013) studied on Quality of Work Life of employees at Jeppiaar cement private Ltd. to find out the factors measurements of QWL. 50 % respondents from 200 sample size respondents were selected from the workman categories so the researcher adopted the simple random sampling technique using the lottery method. Variables used for this study: were compensation, work environment, social relation, job satisfaction, safety and healthy environment, welfare and Opportunities for use and Development of Skills and Ability. For the data analysis researcher used Karl Pearson coefficient. Result showed that there is no significant relationship between educational and QWL and no significant relation between the income and QWL. There is no significant relationship between the age of the respondents and their overall quality of work life and no significant relationship between the education qualification of the respondents and their overall Quality of Work Life.

G. Vijayakrishna (2013) assessed empirically on various factors contributing to quality of work life in the retail sector. Big bazaar and 6 retail outlets at TSR complex at Visakhapatnam were selected. The factors considered are working conditions, Atmosphere, Illumination, Work schedule, Rest pauses. In this study it was found that in selected retail organizations concern authorities are formulate optimum combination of process, social and other approaches that will maximize performance while creating high Quality of Work Life climate for employees in the retail organizations. viz: Big bazaar, various retail outlets.

S.Khodadadi et al (2014) Investigated the QWL dimensions effect on the employees' job satisfaction. In this study independent variables were permanent security providing, salary and benefits payment policies, development and promotion opportunity, and job independence, job satisfaction as the dependent variables. 114 employees selected randomly for this study and two questionnaires of “Quality of Work Life” and “Job Satisfaction” were used for data collection and Data analysis was done by using SPSS and LISREL software. The results of the study showed that the salary and benefits' policies have a significant and positive effect on Shuhstar’s Shohola Hospital employees' job satisfaction.

Rethinamand Ismail reviewed different researches about definitions and constructs of QWL and designated that quality of work life is a multi-dimensional construct and is made of a number of inter-related factors. From the literature review it can be revealed that job satisfaction, self esteem, job security and growth and physical illness are the primary indication of quality of work life.

3. OBJECTIVES

- To identify the various factors causing stress in retail sector.
- To identify the effect of these factors on the Quality of Work-Life.
- To identify the suitable measures for improving Quality of Work-Life.

4. HYPOTHESIS

As the factors causing stress affect the Quality of Work Life therefore to achieve the objectives of the study the following hypothesis have been formulated:

H1: -Work Pressure causing stress affects Quality of Work Life in Retail Sector.

H2: -Discrimination at workplace causing stress
affects Quality of Work Life in Retail Sector.

H3:- Interpersonal relation between managers and employees causing stress affects Quality of Work Life in Retail Sector.

H4:- Extended working hours without compensation causing stress affects Quality of Work Life in Retail Sector.

5. RESEARCH METHODOLOGY

5.1 Data collection

The study is empirical in nature and data is collected through primary and secondary sources. The primary data is collected through the constructive questionnaires on effects of factors causing stress on Quality of Work Life in Retail Sector. Secondary data was collected from research studies, books, various published journals, magazines websites and online articles. Simple random sampling technique is used to select the sample for study. Sample size for the analysis was 50 sales people from the various retail outlets in NCR.

5.2 Research Design

Since work stress plays crucial roles in life of individuals and sustainable development of organizations. Hence, keeping in view its paramount importance following four factors i.e. Work Pressure, Discrimination at Work place, Interpersonal relation, and Extended working hours causing stress are considered and compared as the factors influencing the Quality of Work Life. Work stress is used as an independent variable in this study. The study gave an opportunity to discover the relationship between the two variables; Quality of Work Life and work stress that affect the Quality of Work Life in Retail Sector in NCR.

5.3 Data Analysis

The collected data in the study shows that 17% respondent are male and 8% are female in which 19% employees are between the ages of 20 yrs to 29 yrs, 5% employees are between 30yrs to 39 yrs and only 1% employees are between the ages of 40 to 49yrs. The Educational background of respondent are 10.5% Graduate, 7.5% Intermediate and only 4.5% are Post graduate. The High school background respondents are very low 2.5%.

It is identified that 16% population are unmarried. Regarding the monthly income of respondents, nearly 12.5% respondents are drawing their salary between 5001 to 8000. 7.5% respondent drawing salary between 3001-5000 and 4.0% respondent drawing their salary between 8001-12000. There is only 1.0% respondent drawing their salary above 12000. Majority of the respondent 11.0% have 1 to 5 yrs work experience, 6.0% respondent have less than 1yr experience and 5.0% respondent have 5 to 10yrs experience. Only 3.0% respondent has more than 10yrs experience in present job profile. The other demographic factor consider for study is Product dealing in which 3.5% respondent are dealing with Grocery Product, 9.0% respondent deals in Dress Material and 2.5% respondent dealing in Electronic Items. The most of the respondent10.0% deals in Gifts and Others. So, majority of the respondent are unmarried male who are graduates under the age of 20-29 and drawing salary between 5001-8000 with 1 to 5 yrs work experience.
**Factor 1 : Work Pressure causes stress in Retail Sector**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent %</th>
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<tr>
<td>Always</td>
<td>31</td>
</tr>
<tr>
<td>Very Often</td>
<td>14</td>
</tr>
<tr>
<td>Some time</td>
<td>3</td>
</tr>
<tr>
<td>Never</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
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</table>

**Interpretation:** The above data shows that 15.5% respondent always feel stress due to Work Pressure at their work place. 7.0% respondent feel very often and 1.5 % feel some time, only 1.0% respondent never feel pressure at work place. It can be seen from the data that Work Pressure at work place causes stress for employees working in Retail Sector in NCR.

**H1:- Work Pressure causing stress affects Quality of work life in Retail Sector**

**Interpretation:** Excessive workload and working conditions causes’ job stress that decreases employee’s job satisfaction level. For testing H Chi-square test was done on the collected data. The calculated value of Chi-square is 4.02 which are more than the table value of \( \chi^2 \) i.e. 3.84 at 5% level of significance shows that stress causes work pressure decline the job satisfaction level of employees that always affects Quality of Work Life of Retail Sector. So, that H1 is accepted.

**Factor 2 : Discrimination at workplace causes stress in Retail Sector.**

![Graph showing discrimination at work place causes stress in Retail Sector]

**Interpretation:** The data shows 10.0% respondent feel discrimination at work place cause stress some time, 6.0% respondent very often and 5.0% respondent always feel stress from discrimination at work place. Only 3.0% respondent never feels discrimination at work place. So, the majority of respondent some time feel Factor 2 is another cause of stress at work place in Retail Sector in NCR.

**H2:- Discrimination at workplace causing stress affects Quality of Work Life in Retail Sector.**

**Interpretation:** Interventions with young population should consider the underlying issues of stress and discrimination which contribute to negative self-evaluations and hurt their self-esteem. The calculated value of Chi-square is 3.21 which is less than the table value of \( \chi^2 \) i.e. 3.84 at 5% level of significance shows that discrimination at work place not always affects Quality of Work Life in Retail Sector. Therefore, H2 is rejected.

**Factor 3 : Interpersonal relation between manager and employees causes stress in Retail Sector**

![Graph showing interpersonal relation between manager and employees causes stress in Retail Sector]

**Interpretation:** The data reveals that 11.0% respondent thinks Interpersonal Relation between
Manager and Employees is cause of stress at work place. 10% respondent some time and 3.0% always think Interpersonal Relation creates stress at work. Only 1.0% respondent thinks it never affect their work in Retail Sector in NCR.

H3: -Interpersonal relation between manager and employees causing stress affects Quality of Work Life in Retail Sector.

Interpretation: - Stress due to interpersonal relation between manager and employees create fear of job insecurity and lack of future growth opportunity. The calculated value of Chi-square test is 3.96 which are more than the table value of \( \chi^2 \) i.e. 3.84 at 5% level of significance shows that Interpersonal relation between manager and employees causing stress always affects Quality of Work Life in Retail Sector. Therefore H3 is accepted.

Factor 4 : Extended working hours without compensation causes stress in Retail Sector.

Interpretation: - The data showing majority of respondent 12.5% some time feels Extended working hours without compensation creates stress at work place, 5.0% respondent feels very often and 3.0 respondent always feels stress from (Factor 4). 4.5% respondents never feel that this factor creates stress at work place in Retail Sector. From the above data this factor is some time cause of stress in Retail Sector in NCR.

H4: Extended working hours without compensation causing stress affects Quality of Work Life in Retail Sector

Interpretation: - Extended working hours or unusual work shifts may be more stressful physically, mentally, and emotionally. The calculated value of Chi-square is 2.86 which is less than the table value of \( \chi^2 \) i.e. 3.84 at 5% level of significance shows that Extended working hours causes stress not always affects the Quality of Work Life in Retail Sector in NCR. Therefore, H4 is rejected.

6. CONCLUSION

The main focus of this study was to find how work stress is affecting the Quality of Work Life in Retail Sector in NCR. Four factors were identified that caused stress at work place and their effect on Quality of Work Life was studied. The study shows that:-

- "Discrimination due to age, disability, gender or sexual orientation, unfair treatment, contributes to stress and health Problems." It leads to lower self-esteem or a reduced sense of personal efficiency. The present study shows that the employee does not always face discrimination at workplace and it does not affect Quality of Work Life in Retail Sector in NCR.

- Job security is another factor that is of concern to employees. Interpersonal conflicts increase the fear of job insecurity and loosing future growth opportunity at work place. The above findings show the existence of Interpersonal conflicts between management and employees that affect Quality of Work Life in Retail Sector in NCR.

- Individual differences like age, gender, tolerance, physical fitness affects the performance when they work extra from their normal working hours. Our findings shows majority of employees working in Retail Sector in NCR are male under the age of 30 and as per the job profile of Retail employees they have to stay longer hours during holidays and weekends and it does not affect Quality of Work Life in Retail Sector in NCR.

It can be concluded from the analysis that only two independent variables of stress i.e. work pressure and Interpersonal relations are positively related with the quality of work life of employees.
in Retail Sector in NCR.


7. SUGGESTIONS

- Proper communication between manager and employees is necessary to reduce uncertainty about their jobs and futures.
- Management should clearly define each task and responsibilities according to employee’s capacity, knowledge and skills.
- Work appreciation and incentives can motivate employees under work pressure. Hence managers should adopt various employee appraisal techniques. It will motivate the employee for giving their best and reduce stress.
- Permanent employment provides security to the employees and improves their QWL.
- Job of a sales man is physically exhaustive. Restroom, proper canteen service, recreation rooms to the staffs is a must.

REFERENCES


**Table: 1 Demographic Factor wise Classification of respondents**

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<td></td>
<td>Female</td>
<td>16</td>
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<td>2.</td>
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<td>40-49</td>
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<td></td>
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<td>Marital Status</td>
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<td>Gifts and others</td>
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