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# FROM THE DESK OF EDITOR

Dear Readers,

It is my privilege to present the current issue (Volume-5, Issue-I, Jan.-June 2015) of GGGI Management Review: A Bi-Annual Refereed International Journal of Management. Keeping in view the continuous increase in inclination towards research globally in the field of management GGGIMR has made an attempt to provide a platform to researchers from corners of the world.

The current issue comprises twenty papers from management & allied areas including selected papers contributed during 'COLLOQUIUM 2015', 6th National Conference on engineering management & apparel and textile technology. Topic included the research on Growth of E-Banking Channels in India, Financial Statement Effects of IFRS Convergence in India, Positioning in the Smartphone Industry in India, Innovations in Banking Services for Sustainability, Corporate Financial Disclosures in Banking Companies, The Dynamic Relationship between Stock Return, Trading Volume and Volatility in Indian Stock Market, Corporate Working Capital Management Practices in the Backdrop of Recent Global Recession, A Study on Employees' Perception of Quality of Work Life in Commercial Banks, Growth Potential and Opportunities of Micro, Small and Medium Enterprises of India, A Study on the CSR Initiatives taken by IOCL and BPCL in India.

I am sure that the high quality papers published in GGGIMR will sustain the interest of academicians, researchers, managers and entrepreneurs to conduct research in various fields of management. The journal has become successful in creating shelf-space in libraries of renowned B-schools of India. So once again, I request all the researchers to take full advantage of this platform to publish their research work and let the world know about it. I also request all the readers to encourage the institutions they are associated with, to subscribe the journal. The journal is already available in more than 50 renowned institutions on exchange basis. The PDF copy of GGGIMR is also available on our institute website i.e. www.galaxyglobaledu.com.

We look forward to receiving your comments and feedback.

Regards,

**Dr. Monika G. Vashisht**

Managing Editor

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*ISSN 2249-4103* **GGGI Management Review**
*A Bi-Annual Refereed International Journal of Management*

# Growth of E-Banking Channels in India: A Comparative Study across Various Bank Groups (1998-99 to 2012-13)

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## Abstract

Information Technology (IT) innovations in the last few years have changed the landscape of banks in India, IT seems to be the prime mover of all banking transactions. Electronic banking (e-delivery channels) as a tool of Information Technology is bringing a swift change in the way banks operate, especially by offering better delivery channels and customer friendly services. To compete in an economy which is opening up, it is imperative for the Indian Banks to observe the latest technology and modify it to suit their environment. So, This paper brings out the growth of e-delivery channels across commercial banks in India. The commercial banks are divided into four broad groups- Nationalized banks, SBI and its Associates, New Private banks and Old Private banks. For the purpose of this study growth of e-delivery channels have been taken for a fifteen year duration ranging from 1998-99 to 2012-13.SPSS (version 20) is applied for statistical data analysis. The findings indicated that the growth of e-delivery found higher during post e-banking period in comparison to post e-banking period.

**Keywords:** E-Delivery Channels, ATMs, Internet Banking, Mobile Banking, Tele Banking and Credit Cards

## Introduction

The Indian banking Industry has undergone radical changes due to liberalization and globalization measures undertaken since 1991. Banking operations and process were reengineering with the introduction of technology. Information Technology (IT) has bridged the gaps in terms of the reach and the coverage of systems and enabled better decision-making based on latest and accurate information, reduced cost and overall improvement in efficiency. Many new processes, products and services offered by banks and other financial intermediaries are now IT centered. Banks are using new tools and techniques to find out their customers need and offer them tailor made products and services. E-banking is one of the important tool of technology and it includes systems that enable financial institutions, customers, individuals and businesses, to access accounts, transact business, or obtain information on financial products and services through public or private networks, including the internet. Customers access e-banking services using an intelligent electronic devise, such as a personal computer (PC), personal digital assistant (PDA), automated teller machine (ATM). Private networks "closed" restrict access to participant (financial institutions, customers, merchants, and third party service providers) bound by agreement on the terms of membership. Public networks "open" have no such membership requirements.

Nowadays majority of the banks are providing the services through e-channels like ATMs, mobile banking, tele banking, internet banking, debit cards, credit cards, electronic fund transfers, electronic data interchange and smart cards etc. Most of the initiatives channels are aimed at providing better and more efficient customer service by offering multiple options to the customers. Customers are getting many benefits from e-services like balance enquiry, request for services, issuing instructions etc. from anywhere in the world are possible, any time banking, convenience acts as a tremendous psychological benefit all the time, cash/card free banking through PC banking, brings down "cost of banking" to the customer over a period of time, cash withdraw from any branch, on-line purchase of goods and services including on-line payment for the same. Jalan, B. (2003), expressed that perhaps no other sector has been affected by advances in technology as much as banking and finance. Shetty, V.P. (2000) states that technology is dramatically altering the ways in which financial services are delivered to consumers. In order to meet the global challenges of new economic environment and in response to the demanding situations, banks have adopted a variety of measures to make them competitive and adaptable to this changing environment. It is only the blessing of electronic age that the Indian banks are facing competition boldly and transformation taking place. The bank which used the right technology to supply timely information will see productivity increase and thereby gain a competitive edge. With so many benefits from e-services, it is a need of an hour to study the growth of various e-delivery channels available for the customers of Indian banks.

## Review of Literature

The application of IT in banks has reduced the scope of traditional or conventional banking with manual operations. Banks are using new tools and techniques to find out their customers need and offer them tailor made products and services. The impact of automation in banking sector is difficult to measure. Recently several researchers, bankers, and policy makers have either conducted studies or written conceptual articles on the topic 'present scenario of IT' etc. in Indian banking industry. In this part of the paper some of the more frequently quoted studies have been reviewed.

**Shastri (2001)** analyzed the effect and challenges of new technology for banks. He found that technology has brought a sea change in the functioning of banks. The earlier manual system of preparation of vouchers, etc. is slowly being automated thereby saving a lot of time & effort. **Jadhav Anil (2004)** described various channels of e-banking services such

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as ATM, Telephone banking (Tele-banking), Mobile banking, Internet banking and its features. The focus is also given on e-banking opportunities, challenges and security aspects while performing the banking transactions on the internet. **Ahuja G. and Singh (2006)** study concludes that ICICI in India is the largest cards issuer with customer base of above 3 million. But only 14 percent of Indians are using these cards that too, are of 40 -50 years of age. The majority of card holders are businessmen or servicemen and 71 percent are using to make payments like hotels bills, club bills etc. 36 pc use at least twice a month. **Pooja Malhotra and Balwinder Singh (2009)** present the current state of internet banking in India. The results show that nearly 57 percent of the banks provide internet banking services. The multiple regression results reveal that the profitability and offering of Internet banking do not have any significant association. **Paper of Uppal (2011)** exhibits the growth of information technology in various bank groups. The maximum technology is taking place in new generation private sector banks as well as foreign banks. Public sector banks have more on site ATMs where as new private sector banks and foreign banks have more off site ATMs. The paper also suggested some strategies to enhance e delivery channels in banks particularly in public sector banks. The study conducted by **Komal and Vandna (2012)** aims to examine the progress of e-banking in India. Paper is basically concerned with the customer aspect of banking searching for customer satisfaction level. This is a comparative study of Public sector banks, Private sector Indian banks and Private sector foreign banks. Result shows a significant difference in the present e-banking scenario of ATM, Internet banking, Mobile banking and Credit cards in India. The objective of the paper of **Lal Roshan and Saluja Rajni (2012)** is to study and analyze the progress made by Indian banking industry in adoption of technology. The study is secondary based and analytical in nature. The progress in e-banking in Indian banking industry is measured through various parameters such as Computerization of branches, Automated Teller Machines, Transactions through Retail Electronic Payment Methods etc. Statistical and mathematical tools such as simple growth rate, percentages and averages etc. are used. Patil (2014) explored the development pattern of banking industry in plastic cards usage trends. The study was carried out by taking a survey of 100 respondents by non –probabilistic convenience sampling method from a city of Mumbai by using structured questionnaire and interview technique. The study reveals that the use of plastic cards is more and more increasing for online payment, around 50% of payments done through credit/ debit cards by customers.

**Research Objective and Hypothesis**

The objective of the present research paper is "To analyze the growth of e-delivery channels of various bank groups in India". To achieve the objectives of the study, the following hypothesis are formulated.

**H01:** There is no significance difference in the Growth pattern of ATMs among the selected bank groups in pre e-banking and post e-banking period.

**H02:** There is no significance difference in the Growth pattern of Credit Cards among the selected bank groups in pre e-banking and post e-banking period.

**H03:** There is no significance difference in the Growth pattern of Internet Banking branches among the selected bank groups in pre e-banking and post e-banking period.

**H04:** There is no significance difference in the Growth pattern of Mobile Banking branches among the selected bank groups in pre e-banking and post e-banking period.

**H05:** There is no significance difference in the Growth pattern of Tele Banking Branches among the selected bank groups pre e-banking and post e-banking period.

**Research Methodology**

The present study is descriptive in nature. The reference period of the study is 15 years from 1997-98 to 2012-13. Further the time period of the study is divided into two parts i.e. pre e-banking and post e-banking period. It compares the growth of the various bank groups. For the purpose of secondary data a sample of 20 banks is taken (5 each from SBI and its associates, nationalized bank group, old private sector bank group, new private sector bank group).

- **SBI and its Associates:** State bank of India, State bank of Hyderabad, State bank of Patiala, State bank of Travancore and State bank of Bikaner and Jaipur.
- **Nationalized Banks:** Punjab National bank, Canara bank, Bank of India, Union bank of India, and Bank of Baroda.
- **Old private sector banks:** Jammu and Kashmir bank, Federal bank, ING Vysya, Karnataka bank and South Indian bank.
- **New Private sector banks:** Industrial Credit Corporation of India, (ICICI), Housing Development Financial Corporation, (HDFC), AXIS, IndusInd bank and Kotak Mahindra bank.

The selection of these banks is based on their market share in deposits and advances in the year 2011-12. Banks with the highest market shares have been included in the sample of each category of banks. The secondary data is taken as input to achieve the objectives of the study, For this study secondary data has been procured from:(i) Performance highlights, various issues, IBA (Mumbai), (ii) IBA Bulletin (Special Issues), 1997-98 to 2012-13; (iii) Report on Trend and Progress of Banking in India, 1998 to 2013; (iv) Statistical Tables Relating to Banks in India (RBI). The data was analyzed by using various statistical tools including compound growth rate, ANOVA (F) test and t-test. The table numbering from 1 to 5 present bank group- wise number of e-banking channels. The tables 1A to 5A present growth pattern of e-banking channels in India

**Growth of E-banking channels in India**

Table 1 presents the bank group wise number of ATMs, during pre e-banking and post e-banking period. The numbers of ATMs installed by the scheduled commercial banks rose to 1, 12,753 at end-March 2013 from 2,296 at end-

March 1998. The total number of ATMs installed by nationalized banks and SBI group was 1,520 and 586 respectively in the year 1997-98, whereas new private sector banks and old private sector banks had 120 and 70 ATMs respectively in the corresponding duration.

**Table 1: Bank group wise no. of ATMs of Scheduled Commercial Banks in India between 1998-99 and 2012-13.**

| period | | Number of ATMs | | | | |
|---|---|---|---|---|---|---|
| | | Nationalized Banks | SBI and its Associates | Old Private Sector Banks | New Private Sector Banks | Banking Industry |
| pre e-banking period(1997-98 to 2000-01) | 1997-98 | 1520 | 586 | 70 | 120 | 2296 |
| | 1998-99 | 2204 | 1750 | 139 | 295 | 4388 |
| | 1999-00 | 2804 | 2750 | 330 | 300 | 6184 |
| | 2000-01 | 3302 | 3120 | 504 | 340 | 7266 |
| post e-banking period(2001-02 to 2012-13) | 2001-02 | 3705 | 4200 | 710 | 420 | 9035 |
| | 2002-03 | 3903 | 4750 | 842 | 580 | 10075 |
| | 2003-04 | 4204 | 5000 | 1001 | 610 | 10815 |
| | 2004-05 | 4772 | 5220 | 1241 | 5612 | 16845 |
| | 2005-06 | 7165 | 5443 | 1547 | 6112 | 20267 |
| | 2006-07 | 9888 | 6441 | 1607 | 8192 | 26128 |
| | 2007-08 | 13355 | 8433 | 2100 | 9867 | 33755 |
| | 2008-09 | 15038 | 11339 | 2674 | 12646 | 41697 |
| | 2009-10 | 19702 | 20978 | 3390 | 15057 | 59127 |
| | 2010-11 | 24836 | 24651 | 4126 | 19525 | 73138 |
| | 2011-12 | 31050 | 27143 | 5771 | 30308 | 94272 |
| | 2012-13 | 37061 | 32591 | 7566 | 35535 | 112753 |

Source: compiled from the annual reports, performance highlights various issues (1997-2013) RBI and IBA.

The table 1 further indicates that the number of ATMs has been the maximum in case of nationalized banks followed by SBI & its associates, new private sector banks and the lowest in case of old private sector banks between the period 1997-98 and 2003-04. It is visible from the table that number of ATMs was the highest in case of SBI group (4200) and the lowest in case of new private sector bank groups in the of beginning post e-banking period of this study (2001-02). During 2003-04, number of ATMs have risen to 10,815 from 9035 in 2001-02 in case of Banking Industry. In contrast to above, the new private sector banks (5,612) were on the top followed by SBI & its Associates, (5,220), nationalized bank group (4,772) and old private sector banks (1,241) during 2004-05, in so far as the number of ATMs is concerned.

**Table 1 A: Bank group wise growth of ATMs of Scheduled Commercial Banks in India between 1998-99 and 2012-13.**

| Period | | Growth of ATMs ( in percent) | | | | |
|---|---|---|---|---|---|---|
| | | Nationalized Banks | SBI and its Associates | Old Private Sector Banks | New Private Sector Banks | Banking Industry |
| pre e-banking period(1997-98 to 2000-01) | 1998-99 | 45.00 | 198.63 | 98.57 | 145.83 | 91.11 |
| | 1999-00 | 27.22 | 57.14 | 137.41 | 1.69 | 40.93 |
| | 2000-01 | 17.76 | 13.45 | 52.73 | 13.33 | 17.50 |
| | **Mean** | **29.99** | **89.74** | **96.24** | **53.62** | **49.85** |
| | **ACGR** | **29.50** | **74.60** | **93.10** | **41.60** | **46.90** |
| post e-banking period(2001-02 to 2012-13) | 2001-02 | 12.20 | 34.62 | 40.87 | 23.53 | 24.35 |
| | 2002-03 | 5.34 | 13.10 | 18.59 | 38.10 | 11.51 |
| | 2003-04 | 7.71 | 5.26 | 18.88 | 5.17 | 7.34 |
| | 2004-05 | 13.51 | 4.40 | 23.98 | 820.00 | 55.76 |
| | 2005-06 | 50.15 | 4.27 | 24.66 | 8.91 | 20.31 |
| | 2006-07 | 38.00 | 18.34 | 3.88 | 34.03 | 28.92 |
| | 2007-08 | 35.06 | 30.93 | 30.68 | 20.45 | 29.19 |
| | 2008-09 | 12.60 | 34.46 | 27.33 | 28.16 | 23.53 |
| | 2009-10 | 31.01 | 85.01 | 26.78 | 19.07 | 41.80 |
| | 2010-11 | 26.06 | 17.51 | 21.71 | 29.67 | 23.70 |
| | 2011-12 | 25.02 | 10.11 | 39.87 | 55.23 | 28.90 |
| | 2012-13 | 19.36 | 20.07 | 31.10 | 17.25 | 19.60 |
| | **Mean** | **23.00** | **23.17** | **25.69** | **91.63** | **26.24** |
| | **ACGR** | **22.30** | **21.60** | **25.30** | **47.30** | **61.90** |
| Levene's Test for Equality of Variances | F | 0.072 | 18.234 | 9.675 | 0.276 | 7.633 |
| | **p value** | 0.792 | 0.001 | 0.008 | 0.608 | .016 |
| t- Test for Equality of means | T | 0.790 | 1.183 | 2.863 | -0.276 | 1.072 |
| | **p value** | **0.443** | **0.356** | **0.100** | **0.787** | **.391** |

But, the trend shows a change during 2005-06, after which the number of ATMs has been seen the highest in case of nationalized bank groups and lowest in case of old private sector bank groups. The phenomenon is found true, irrespective of time period. During 2012-13, number of ATMs was the highest in the case of nationalized banks (37,061), followed by private sector new banks (35,535), SBI group (32,591) and the lowest in case of old private sector banks (7,566). The private sector banks combinedly have 43,101 ATMs as on 31st March 2013 as against merely 190 during 1997-98. Similarly, the numbers of ATMs of public sector banks rose to 69,652 on 31st March 2012 from 2,106 in 1997-98. The total number of atm's were only 7266 during pre e-banking period but a remarkable positive change can be seen in ATMs over the years and it increased almost 15 times in post e-banking period. Public sector banks accounted for more than 60 per cent of the total number of ATMs as at end-March 2013, while close to one -third of the total ATMs were attributable to new private sector banks.

Table 1.A represents the year on year and annual compound growth rate of ATMs of various bank groups during pre e-banking and post e-banking period. In so far as the growth rate about ATMs is concerned, the top position is claimed by SBI group (198.63%), followed, in downside, by new private sector bank groups (145.83%), old private sector bank groups (98.57%)and nationalized bank group (45%) during 1998-99. In contrast to above, the old private sector banks (52.73%) were on the top followed by nationalized bank groups (17.76%), SBI bank group (13.45%) and new private sector bank groups (13.33%) at the end of March 2001, in so far as the growth of ATMs is concerned. The ACGR in this respect was found the lowest in case of nationalized bank group (29.50%), followed, in upside by new private sector bank

group (41.60%), SBI group (74.60%) and old private sector bank group (93.10%). In the beginning of post e-banking period of the study (i.e. 2001-02) growth rate in ATMs was found highest in case of old private sector bank groups (40.87%) and lowest in case of nationalized bank group (12.20%). The growth of ATMs has shown the mixed trend during the post e-banking period irrespective of bank groups. It is visible from the table that growth of ATMs was the highest in case of old private sector bank group (31.10), followed by SBI group (20.07%), nationalized bank group (19.36%) and the lowest in case of new private sector bank groups at the end of March 2013. During post e-banking period, the compound annual growth of ATMs stood highest in new private sector banks (47.30%), followed in downside by old private banks (25.30%), nationalized banks (22.30 %) and State Bank of India group (21.60 %). It is clear from the table that both simple average and compound average growth rate of ATMs is found higher during pre e-banking period as compared to post e-banking period for all bank groups with exception of New Private Sector Banks. Overall the growth in ATMs has been excellent in pre e-banking period.

The assumption of homogeneity of variance tested by Levene's test of equality of variances. In case of SBI group and old private sector bank group p value has found less than 0.05, it means the hypothesis has been rejected and group variances are not treated equal. But, in case of nationalized bank group and new private sector bank groups p value > 0.05, and group variances are treated equal. The independent sample t-test was applied to examine the significant difference in growth pattern of ATMs of various bank groups in pre e-banking and post e-banking period. The results about this test are given in table 1.A which shows that p value is insignificant at 5 percent level for all bank groups. Therefore, we accept the null hypothesis which means the growth rate of ATMs of the selected bank groups for the two periods (i.e. pre e-banking and post e-banking) are not significantly different from each other i.e. the ATMs growth pattern of various bank groups for two time periods is same.

The data on number of credit cards issued by various bank groups, during the study period is shown in table 2. It is evident from the table that number of credit cards of scheduled commercial banks has risen to 39, 67,041 at the end of March 2013 from 7, 06,076 at the end of March 1998. The table 2 further indicates that the number of credit cards has been the maximum in case of SBI & its associates, followed by new private sector banks, nationalized banks and old private sector banks between the period 1997-98 and 2001-02. In contrast to above, the new private sector banks have issued the maximum number of ATMs (5, 37, 520,) followed by SBI & its Associates, (5, 20,406), nationalized bank group (4, 78,540) and old private sector banks (47,151) at the end of March 2003. But, the trend shows a change during 2005-07, where the number of credit cards has been seen the highest in case of SBI group and lowest in case of old private sector bank groups. After this period, new private sector banks and nationalized banks have issued the maximum number of credit cards. At the end of March 2013, more than three-fourth of the credit cards were issued by public sector banks. It is noteworthy that the New private sector banks have issued the highest (17,54,640) number of credit cards followed by nationalized banks (10,03,296), SBI group (9,85,318) and old private sector banks (2,23,787) during 2012-13. The number of credit cards issued by public sector bank was 7, 78,049 in 2000-01 and 19,88,614 in 2012-13 where as private sector banks had 3,66,162 and 19,78,427 credit cards in the corresponding duration. The number of credit cards has been showing a remarkable increase during 2001-02 to 2012-13 in case of all the bank groups. In 1998-99 the growth rate of credit cards found the highest in case of old private sector banks (72.04%), followed by nationalized banks (54.22%), new private sector banks (40.36) and SBI group (17.77%). The growth rate of credit cards shows a declining trend in case of all bank groups except new private sector banks during 2000-01. Overall, growth rate of credit cards decrease from 30.26 percent to 10.66 percent during pre e-banking period for all bank groups. At the end of March 2002, growth rate of credit cards found the maximum for old private sector bank groups (42.46%) and minimum for SBI group (2.94%). Whereas, by reversing the trend it is found maximum in SBI group (28.19%) and lowest in old private sector bank groups (10.50%) during 2005-06.

**Table 2: Bank group wise no. of Credit Cards of Scheduled Commercial Banks in India between 1998-99 and 2012-13.**

| Number of Credit Cards | | | | | | |
|---|---|---|---|---|---|---|
| period | | Nationalized Banks | SBI and its Associates | Old Private Sector Banks | New Private Sector Banks | Banking Industry |
| pre e-banking period(1997-98 to 2000-01) | 1997-98 | 111213 | 385621 | 1216 | 208026 | 706076 |
| | 1998-99 | 171512 | 454160 | 2092 | 291995 | 919759 |
| | 1999-00 | 231534 | 480482 | 3944 | 318010 | 1033970 |
| | 2000-01 | 291517 | 486532 | 21152 | 345010 | 1144211 |
| post e-banking period(2001-02 to 2012-13) | 2001-02 | 331540 | 500860 | 30134 | 427190 | 1289724 |
| | 2002-03 | 478540 | 520406 | 47151 | 537520 | 1583617 |
| | 2003-04 | 521543 | 560450 | 52153 | 597920 | 1732066 |
| | 2004-05 | 641711 | 630415 | 67110 | 657820 | 1997056 |
| | 2005-06 | 724011 | 808116 | 74158 | 764320 | 2370605 |
| | 2006-07 | 882040 | 910446 | 84142 | 884325 | 2760953 |
| | 2007-08 | 971011 | 920460 | 99133 | 992721 | 2983325 |
| | 2008-09 | 972345 | 930560 | 103345 | 1023451 | 3029701 |
| | 2009-10 | 974567 | 940673 | 136789 | 1234567 | 3286596 |
| | 2010-11 | 987653 | 950765 | 176542 | 1456781 | 3571741 |
| | 2011-12 | 995432 | 967896 | 198763 | 1598761 | 3760852 |
| | 2012-13 | 1003296 | 985318 | 223787 | 1754640 | 3967041 |

Source: compiled from the annual reports, performance highlights various issues (1997-2013) RBI and IBA.

It is also evident from table 2.A that the growth of credit cards in case of all bank groups have shown a decreasing trend during 2008-2009. During 2012-13, growth of credit cards is found highest (12.59 %) in case of old private sector bank group, followed by new private sector banks (9.75 %), SBI & its associates (1.80 %), and nationalized banks where the growth of credit cards is seen the lowest (0.79 %).

**Table 2.A: Bank group wise growth of Credit -Cards of Scheduled Commercial Banks in India between 1998-99 and 2012-13.**

| Period | | Growth of Credit Cards ( in percent) | | | | |
|---|---|---|---|---|---|---|
| | | Nationalized Banks | SBI and its Associates | Old Private Sector Banks | New Private Sector Banks | Banking Industry |
| pre e-banking period(1997-98 to 2000-01) | 1998-99 | 54.22 | 17.77 | 72.04 | 40.36 | 30.26 |
| | 1999-00 | 35.00 | 5.80 | 88.53 | 8.91 | 12.42 |
| | 2000-01 | 25.91 | 1.26 | 436.31 | 8.49 | 10.66 |
| | **Mean** | **38.38** | **8.28** | **198.96** | **19.25** | **17.78** |
| | **ACGR** | **37.50** | **8.10** | **159.10** | **18.40** | **17.40** |
| post e-banking period(2001-02 to 2012-13) | 2001-02 | 13.73 | 2.94 | 42.46 | 23.82 | 12.72 |
| | 2002-03 | 44.34 | 3.90 | 56.47 | 25.83 | 22.79 |
| | 2003-04 | 8.99 | 7.69 | 10.61 | 11.24 | 9.37 |
| | 2004-05 | 23.04 | 12.48 | 28.68 | 10.02 | 15.30 |
| | 2005-06 | 12.83 | 28.19 | 10.50 | 16.19 | 18.70 |
| | 2006-07 | 21.83 | 12.66 | 13.46 | 15.70 | 16.47 |
| | 2007-08 | 10.09 | 1.10 | 17.82 | 12.26 | 8.05 |
| | 2008-09 | 0.14 | 1.10 | 4.25 | 3.10 | 1.55 |
| | 2009-10 | 0.23 | 1.09 | 32.36 | 20.63 | 8.48 |
| | 2010-11 | 1.34 | 1.07 | 29.06 | 18.00 | 8.68 |
| | 2011-12 | 0.79 | 1.80 | 12.59 | 9.75 | 5.29 |
| | 2012-13 | 0.79 | 1.80 | 12.59 | 9.75 | 5.48 |
| | **Mean** | **11.51** | **6.32** | **22.57** | **14.69** | **11.07** |
| | **ACGR** | **10.90** | **6.00** | **21.70** | **14.50** | **10.9** |
| Levene's Test for Equality of Variances | **p value** | 0.026 | 0.013 | 64.536 | 11.216 | 2.304 |
| | Sig. | 0.874 | 0.91 | 0.000 | 0.005 | .153 |
| t- Test for Equality of means | T | 3.102 | 0.371 | 1.484 | 0.425 | 1.458 |
| | **p value** | **0.008** | **0.717** | **0.276** | **0.71** | **.169** |

Source: compiled from the annual reports, performance highlights various issues (1997-2013) RBI and IBA.

The analysis of growth pattern of post e-banking period reveals the highest year on year growth as well as annual compound growth of credit cards for old private sector bank group, followed by new private sector banks, nationalized banks and minimum growth for SBI group respectively during the study period. Both the compound growth rate and simple growth rate (mean) about credit cards are found the highest in case of old private sector banks followed by new private banks, nationalized banks and SBI groups in the post e-banking period. The assumption of homogeneity of variance tested by Levene's test of equality of variances is not fulfilled in case of private sector bank groups. For these bank groups p value has been found less than 0.05, it means the hypothesis is rejected and group variances are not treated equal. The t- test was applied to examine significance of difference of 'credit cards growth pattern' between pre e-banking and post e-banking period. It is found significant at 5 percent level only for nationalized bank groups. Hence, the credit cards growth pattern of nationalized banks for two time period is found statistically different (Table 2.A). But, in case of other bank groups no significance difference is found in the growth pattern of credit cards for two periods.

The number of internet banking branches is a third e-channel considered in this study. Table 3 presents the number of internet banking branches in various bank groups. The number of such branches has increased to 18,465 during 2012-13 as compared to 659 during 1997-98. Thus, the internet banking have increased in commercial banks at an annual compound rate of 16.2 percent since 1997-97 (Table 3.A). The SBI group banks have an edge over private sector as well as nationalized banks in terms of their internet banking branches during the study period. In 1997-98, the internet banking branches were found the highest in case of SBI group (1601) followed by new private bank group (620), nationalized bank group (510) and old private sector bank group (267). During 2012-13, the internet banking branches were also found the highest for SBI group (7882) followed by nationalized bank group (6590), new private sector bank group (2196) and old private sector bank group (1797). In 2012-13, the internet banking branches installed by nationalized banks group is more than 12 times to their respective branches established in pre e-banking period (2001-02). The table also pinpoints that public sector banks enjoy the lion's share of internet banking among the commercial banks in India. Public sector banks accounted for more than 69 per cent and more than 77 percent of the total number of internet banking branches in pre e-banking and post e-banking period respectively, while close to 29 percent and 21 percent of the total internet banking branches in pre e-banking and post e-banking period were attributable to new private sector banks.

Table 3.A shows the growth pattern of internet banking branches during pre e-banking and post e-banking period among commercial banks in India. It can be seen from this table that, there has been fluctuating trend of internet banking branches over the study period. The new private sector banks have the highest compound growth rate (167.83 %), followed, in downside, by old private sector bank group (129.44 %), SBI group (67.65 %) and nationalized bank group (26.90 %) during the pre e-banking period of the study.

**Table 3: Bank group wise no. of Internet Banking branches of Scheduled Commercial Banks in India between 1998-99 and 2012-13.**

**Table 4: Bank group wise no. of Mobile Banking branches of Scheduled Commercial Banks in India between 1998-99 and 2012-13.**

| Number of Mobile Banking Branches | | | | | | |
|---|---|---|---|---|---|---|
| period | | Nationalized Banks | SBI and its Associates | Old Private Sector Banks | New Private Sector Banks | Banking Industry |
| pre e-banking period(1997-98 to 2000-01) | 1997-98 | 186 | 156 | 10 | 25 | 377 |
| | 1998-99 | 241 | 365 | 35 | 120 | 761 |
| | 1999-00 | 317 | 750 | 105 | 220 | 1392 |
| | 2000-01 | 611 | 1000 | 295 | 540 | 2446 |
| post e-banking period(2001-02 to 2012-13) | 2001-02 | 719 | 1200 | 310 | 688 | 2917 |
| | 2002-03 | 1110 | 1450 | 472 | 720 | 3752 |
| | 2003-04 | 1910 | 1700 | 599 | 841 | 5050 |
| | 2004-05 | 3411 | 2700 | 610 | 901 | 7622 |
| | 2005-06 | 5263 | 2745 | 811 | 1325 | 10144 |
| | 2006-07 | 6405 | 3610 | 982 | 1401 | 12398 |
| | 2007-08 | 8401 | 3695 | 1140 | 1502 | 14738 |
| | 2008-09 | 9402 | 3787 | 1356 | 1678 | 16223 |
| | 2009-10 | 9956 | 3897 | 1578 | 1789 | 17220 |
| | 2010-11 | 10079 | 3967 | 1789 | 1834 | 17669 |
| | 2011-12 | 10535 | 4034 | 1976 | 1956 | 18501 |
| | 2012-13 | 11011 | 4102 | 2182 | 2086 | 19381 |

Source: compiled from the annual reports, performance highlights various issues (1997-2013) RBI and IBA

Table 4.A shows the results of growth pattern of mobile banking branches during pre e-banking and post e-banking period. It can be seen from this table that, during both periods, all the bank groups show fluctuating trend in the number of mobile banking branches. A comparison across bank-groups indicates that the old private sector banks have the highest annual compound growth (208.90 %) followed, in downside, by new private sector bank group (178.50 %), SBI group (85.80%) and nationalized bank group (48.70 %) during the pre e-banking period of the study in so far as mobile banking branches are concern.

**Table 4.A: Bank group wise growth of Mobile-Banking branches of Scheduled Commercial Banks in India between 1998-99 and 2012-13.**

| Period | | Growth of Mobile Banking ( in percent) | | | | |
|---|---|---|---|---|---|---|
| | | Nationalized Banks | SBI and its Associates | Old Private Sector Banks | New Private Sector Banks | Banking Industry |
| pre e-banking period(1997-98 to 2000-01) | 1998-99 | 29.57 | 133.97 | 250.00 | 380.00 | 101.86 |
| | 1999-00 | 31.54 | 105.48 | 200.00 | 83.33 | 82.92 |
| | 2000-01 | 92.74 | 33.33 | 180.95 | 145.45 | 75.72 |
| | **Mean** | **51.28** | **90.93** | **210.32** | **202.93** | **86.83** |
| | **ACGR** | **48.70** | **85.80** | **208.90** | **178.50** | **86.50** |
| post e-banking period(2001-02 to 2012-13) | 2001-02 | 17.68 | 20.00 | 5.08 | 27.41 | 19.26 |
| | 2002-03 | 54.38 | 20.83 | 52.26 | 4.65 | 28.63 |
| | 2003-04 | 72.07 | 17.24 | 26.91 | 16.81 | 34.59 |
| | 2004-05 | 78.59 | 58.82 | 1.84 | 7.13 | 50.93 |
| | 2005-06 | 54.29 | 1.67 | 32.95 | 47.06 | 33.09 |
| | 2006-07 | 21.70 | 31.51 | 21.09 | 5.74 | 22.22 |
| | 2007-08 | 31.16 | 2.35 | 16.09 | 7.21 | 18.87 |
| | 2008-09 | 11.92 | 2.49 | 18.95 | 11.72 | 10.08 |
| | 2009-10 | 5.89 | 2.90 | 16.37 | 6.62 | 6.15 |
| | 2010-11 | 1.24 | 1.80 | 13.37 | 2.52 | 2.61 |
| | 2011-12 | 4.52 | 1.69 | 10.45 | 6.65 | 4.71 |
| | 2012-13 | 4.52 | 1.69 | 10.45 | 6.65 | 4.76 |
| | **Mean** | **29.83** | **13.58** | **18.82** | **12.51** | **19.66** |
| | **ACGR** | **27.30** | **12.50** | **18.10** | **11.90** | **18.80** |
| Levene's Test for Equality of Variances | F | 0.236 | 8.847 | 6.416 | 46.442 | .124 |
| | **p value** | 0.635 | 0.011 | 0.025 | 0.000 | .730 |
| t- Test for Equality of means | T | 1.135 | 2.546 | 9.135 | 2.106 | 7.036 |
| | **p value** | **0.277** | **0.119** | **0.009** | **0.169** | **.000** |

In contrast to the trend of pre e-banking period, the year- on -year growth and annual compound growth rates found the highest in case of nationalized bank group and the lowest in new private sector bank group during post e-banking period. In post e-banking period, the annual compound growth rate in mobile banking branches was found highest for nationalized banks (29.83 %), followed by old private sector bank group (18.82 %), SBI group (13.58 %) and new private sector bank group (12.51 %). It is also visible clearly from the table that year –on- year growth and annual compound growth rates of mobile -banking branches were generally found higher during pre e-banking period as compared to post e-banking period. The tools of inferential statistics such as Levene's test, F-test and T-test were applied to draw conclusion about the difference between pre e-banking and post e-banking scenario of mobile banking in India. The assumption of homogeneity of variance tested by Levene's test of equality of variances. The results of the test show that p is greater than .05 only in case of nationalized bank group, it means the hypothesis has been accepted and group variances are treated as equal. Further t- test has been applied to check the significance difference in the growth pattern of mobile banking branches in pre e-banking and post e-banking period. t- value is found significant at 5 percent level in case of old bank groups only because p value is .009 i.e. $p < 0.05$. It means there is a significance difference in the pre e-banking period and post e-banking period regarding the number of mobile banking branches. But in case of remaining bank groups, the difference of mobile banking branches growth between pre e-banking and post e-banking period is not found significant as indicated by the t-test applied for the purpose at 5 percent level.

Tele banking is the fifth e-banking channel considered for analysis in this study. Table 5 presents the bank group wise number of tele banking branches, during pre e-banking and post e-banking period. The table indicates towards a remarkable progress of all bank groups regarding the growth in number of tele banking branches of the scheduled commercial banks which rose to 13,403 during 2012-13 from 198 in 1997-98 and 1891 during 2001-02. The numbers of tele banking branches of SBI group and nationalized banks were 102 and 42 in the year 1997-98, respectively where as new private sector banks and old private sector banks had 28 and 26 tele banking branches in the corresponding years. Public sector banks accounted for more than 56 per cent and 51 percent of the total number of tele banking branches in the pre e-banking and post e-banking period, while only 15 percent such branches are contributed by private sector banks during the same duration. Nationalized banks have the highest (6801) number of tele-banking branches followed by SBI group (3436), new private sector banks (1609) and old private sector bank group (1557) during 2012-13.

Table 5.A represents the year- on- year and annual compound growth rates of tele-banking branches of various bank groups during pre e-banking and post e-banking period. It is clear from the table that both simple average and compound average growth of tele- banking branches is found higher

during pre e-banking period as compared to post e-banking period. This pattern holds good irrespective of the types of bank groups.

**Table 5: Bank group wise no. of Tele-Banking branches of Scheduled Commercial Banks in India between 1998-99 and 2012-13.**

| Period | | Number of Tele Banking Branches | | | | |
|---|---|---|---|---|---|---|
| | | Nationalized Banks | SBI and its Associates | Old Private Sector Banks | New Private Sector Banks | Banking Industry |
| pre e-banking period(1997-98 to 2000-01) | 1997-98 | 42 | 102 | 26 | 28 | 198 |
| | 1998-99 | 84 | 205 | 58 | 80 | 427 |
| | 1999-00 | 201 | 380 | 128 | 202 | 911 |
| | 2000-01 | 310 | 501 | 245 | 320 | 1376 |
| post e-banking period(2001-02 to 2012-13) | 2001-02 | 452 | 600 | 382 | 457 | 1891 |
| | 2002-03 | 982 | 910 | 410 | 652 | 2954 |
| | 2003-04 | 1182 | 1300 | 505 | 680 | 3667 |
| | 2004-05 | 1310 | 1701 | 604 | 792 | 4407 |
| | 2005-06 | 2110 | 1900 | 842 | 802 | 5654 |
| | 2006-07 | 3942 | 2703 | 942 | 901 | 8488 |
| | 2007-08 | 5210 | 2803 | 1044 | 1002 | 10059 |
| | 2008-09 | 5423 | 2908 | 1123 | 1134 | 10588 |
| | 2009-10 | 5834 | 3089 | 1256 | 1256 | 11435 |
| | 2010-11 | 6089 | 3278 | 1378 | 1378 | 12123 |
| | 2011-12 | 6435 | 3356 | 1465 | 1489 | 12745 |
| | 2012-13 | 6801 | 3436 | 1557 | 1609 | 13403 |

Source: compiled from the annual reports, performance highlights of various issues (1997-2013), RBI and IBA

In pre e-banking period year- on- year average and compound growth of tele-banking branches was found the highest in case of new private sector banks and lowest in SBI group. However, by reversing the trend of pre e-banking period, it is found the highest for nationalized bank group and the lowest for new private sector bank group during the post e-banking period.

| Period | | Growth of Tele-Banking ( in percent) | | | | |
|---|---|---|---|---|---|---|
| | | Nationalized Banks | SBI and its Associates | Old Private Sector Banks | New Private Sector Banks | Banking Industry |
| pre e-banking period(1997-98 to 2000-01) | 1998-99 | 100.00 | 100.98 | 123.08 | 185.71 | 106.44 |
| | 1999-00 | 139.29 | 85.37 | 120.69 | 152.50 | 130.70 |
| | 2000-01 | 54.23 | 31.84 | 91.41 | 58.42 | 49.17 |
| | **Mean** | **97.84** | **72.73** | **111.73** | **132.21** | **95.43** |
| | **ACGR** | **94.70** | **70.00** | **111.20** | **125.30** | **92.30** |
| post e-banking period(2001-02 to 2012-13) | 2001-02 | 45.81 | 19.76 | 55.92 | 42.81 | 36.45 |
| | 2002-03 | 117.26 | 51.67 | 7.33 | 42.67 | 54.90 |
| | 2003-04 | 20.37 | 42.86 | 23.17 | 4.29 | 23.77 |
| | 2004-05 | 10.83 | 30.85 | 19.60 | 16.47 | 19.79 |
| | 2005-06 | 61.07 | 11.70 | 39.40 | 1.26 | 28.17 |
| | 2006-07 | 86.82 | 42.26 | 11.88 | 12.34 | 49.83 |
| | 2007-08 | 32.17 | 3.70 | 10.83 | 11.21 | 47.06 |
| | 2008-09 | 4.09 | 3.75 | 7.57 | 13.17 | 7.87 |
| | 2009-10 | 7.58 | 6.22 | 11.84 | 10.76 | 9.52 |
| | 2010-11 | 4.37 | 6.12 | 9.71 | 9.71 | 6.69 |
| | 2011-12 | 5.68 | 2.38 | 6.31 | 8.06 | 11.76 |
| | 2012-13 | 5.68 | 2.38 | 6.31 | 8.06 | 11.76 |
| | **Mean** | **33.48** | **18.64** | **17.49** | **15.07** | **25.63** |
| | **ACGR** | **29.30** | **17.40** | **16.60** | **14.40** | **24.60** |
| Levene's Test for Equality of Variances | F | 0.001 | 3.591 | 0.131 | 20.55 | 5.657 |
| | **p value** | 0.976 | 0.081 | 0.723 | 0.001 | .033 |
| t- Test for Equality of means | T | 2.607 | 3.792 | 9.254 | 3.057 | 2.827 |
| | **p value** | **0.022** | **0.002** | **0.000** | **0.09** | **.096** |

Source: compiled from the annual reports, performance highlights of various issues (1997-2013), RBI and IBA.

Table 5.A further indicates the results of testing the assumption of homogeneity of variance by Levene's test of equality of variances. p value has been found more than 0.05 in majority of bank groups except new private sector bank group, it means the hypothesis has been accepted for these bank groups and group variances are treated equal. The independent sample t-test was applied to examine the significance of difference in growth pattern of tele banking branches of various bank groups in pre e-banking and post e-banking period and results show that p value is found significant at 5 percent level in case of all bank groups except new private banks. Therefore we reject the null hypothesis which means the tele- banking branches of the selected banks for the two periods (i.e. pre e-banking and post e-banking) are significantly different.

## Conclusion

The analysis has brought out that number of ATMs, credit cards, mobile banking branches, internet banking branches and tele banking branches have increased appreciably in all bank groups during 1997-98 to 2012-13. However, the growth of e-delivery channel was found higher in pre e-banking period as compared to post e-banking period. The above phenomenon may be attributed to the fact that e-banking channels drastically cut down the cost of providing service to the customers. For service providers, e-banking channels offers the next surest way to achieve growth. The nationalized banks have the largest share in ATMs, mobile banking branches and tele banking branches, while new private sector banking are leading in issuing credit cards, SBI group have the maximum number of internet banking branches. There is a significance difference found in the growth pattern of ATMs and credit cards between pre e-banking and post e-banking period. The new private sector banks have an edge over their counterparts in terms of per annum growth of their ATMs in post e-banking period. The highest annual compound growth rate of credit cards was found in case of old private sector banks. Similarly, the nationalized banks are leading the industry with highest compound growth of mobile banking and tele banking channels during post e-banking period. The study reveals that annual compound growth rates relatively higher during pre e-banking period than post e-banking period.

The results brought out by the study regarding the use of various e-delivery channels will prove very useful for decision makers and policy makers in the banking industry. All the banks should give more stress to modify their services, through e-delivery channels. The adoption of e-delivery channels might help in improving the CRM in banks, which is essential for enhanced customer satisfaction. In future only those banks would survive which are adopting the information technology fastly with the changing requirement of the customers. There are so many other e-delivery channel are present in the Indian banking sector. However, in the present study the growth of other e-channels has not been considered, which will remain the limitation of the study. It can be concluded that mere introduction of e-delivery channels alone will not be sufficient to bring necessary performance improvement and to get the competitive edge; intelligent people are required to use such intelligent tools. Other limitation of the present study is that the results are based only on secondary data. Hence, the future researchers may take into account this limitation by considering both primary as well as secondary data so as to make the study more useful.

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# Financial Statement Effects of IFRS Convergence In India.

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**Abstract**

The announcement of the long waited MCA notification on the implementation of converged IFRS standard in India has not only set grounds for research but it has also tasked researchers and professionals to provide insight projections on the new standard.

In light of these, the research has inquired into; the changes that Convergence (Ind.AS) or Adoption (IFRS) will bring on accounting values. And whether the differences between AS (Indian local GAAP) values and Ind.AS (IFRS) values will be consistent over the years. The empirical analysis was conducted by using Comparative Index Percentage (CIP) on 5 years consolidated financial statement under AS and IFRS. F-test and T-test were used to test the hypothesis.

Ind.AS is likely to reduce non-current assets value due to the wide difference in goodwill recognition. Similarly, the total liabilities under Ind.AS will also decrease because of the discounted measurement of long term provision and non-recognition of proposed dividend under IFRS (Ind.AS). The findings of the study reveal that, there is no pattern or consistency of IFRS impact on accounting values over the 5 years.

**Keywords;** AS CIP, Ind.AS and IFRS

## 1.0 Introduction

As India prepares to take its bite on IFRS from next accounting year, (2016/2017) through the enforcement of converge IFRS (Ind.AS), there is nothing more pressing in accounting research than, a study on the impact of this new standards on reporting. Although, numerous researches have been conducted since the drafting of Ind.AS in 2011, this study has identified that, almost all of them are theoretical comparison without clearly demonstrating its value impact. This may be due to the fact that, there was no certainty in the implementation of Ind.AS, or because of the continuous postponements of the implementation.

In light of these, the research has inquired into; the changes that Convergence (Ind.AS) or Adoption (IFRS) will bring on accounting values. And whether the differences between AS (Indian local GAAP) values and Ind.AS (IFRS) values will be consistent over the years.

### 1.1 Reasons Why India Went For Convergence But Not Adoption

Indian as its follow big economies like China, USA and Canada has opted to implement a converged IFRS standards rather than a complete IFRS adoption as done by many jurisdictions. Firstly, the accounting professionals believes that India have much cultural difference with other countries so a global standard may not be suitable. Other scholars also thinks that unlike other developing countries where accounting is weak, India over the period has continuously remain as a strong accounting economy with strong local standards, hence the country is not willing to just give up their hard end standards for global standard.

A more pressing issue is that, IFRS is more principle based which gives more choices. This may create breeding grounds for fraud in the country. Therefore a converged version which reduces some of the choice will do for India. Further IFRS 13 fair value measurement has remained at centre of hot debates. The standard setting body (ASB) of the country thinks that India doesn't have efficient market which gives accurate market prices to practice fair valuations. The family business dominance of India also makes it more sensitive for high disclosures as required under IFRS especially in related party transaction.

On a light note, critics of India convergence, opine that India is playing international power politics like their brothers China and Japan by converging and not adopting. In the mist of all these justifications, the IASB hope that, the convergence will serve as preparation for full adoption in the coming years.

### 2.2 Difference Between IFRS Adoption And IFRS Convergence

Adoption of IFRS means the application of full IFRS in a counting or jurisdiction as issued by the IASB and 100% compliant with the guidelines by IASB. Adoption entails the application by a jurisdiction of IFRS in full. It implies a continuing commitment by all adopters to contribute to the development of IFRS into future. (Ian Mackisntos 2014).

Convergence on the other hand means the application of modified comparative version of IFRS within a country. This means that the ASB of the country develop high quality compatible standard that meet the specific condition of the country but are based on the IFRS principles.

## 2.0 Review of Literature

Swamynathan and Sindhu (2011) investigated the financial statement implications of adopting IFRS by Wipro Limited, India. They found less variation in the net income between

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IFRS and the local GAAP. But the reported value of Total liability and Equity differ significantly due between the two standards mainly because of reclassification difference on Equity and Total liability. Due to the recognition of dividend provision per the Local GAAP which is not there in IFRS, the total provision was less in the IFRS financial statement. Fair value measurement of Available for Sale Investment and the Employee Benefits were some of the source high expenses as per IFRS. IFRS reporting accelerated amortization of stock compensation expense in the initial years following the grant of options, whereas in Indian GAAP reporting recognizes the stock compensation expenses in graded manner on a straight line basis over the requisite vesting period for the entire award which resulted in increase in share based payment reserve. In spite of these differences in return on equity, return on asset, total asset turnover and net profit ratios were not significantly affected by converging to IFRS but the leverage ratio shows significant change on converging with IFRS. The change in total Equity and total liability position due IFRS was greater than that of Total Asset Position. The study therefore concluded that IFRS is fair value oriented and Balance Sheet oriented accounting where there are more transparent disclosures and Indian GAAP is conservative approach.

In 2012, Sarbapriya Ray conducted the same study on the same company (Wipro Limited) with the following findings. The total assets value and total equity per IFRS were all more than AS by 1.37% and 7.28% respectively while the total liabilities were less by 6% in 2008. But in 2009, the total asset and per IFRS was high by 1.94% and total equity was also higher by 8.13%. However the differences in the total liabilities reduce to 4.28% from 6% in 2008. They interpreted their results that that there was not much deviations and fluctuations in the net income position as disclosed by financial statement of Wipro Ltd in IFRS reporting and Indian GAAP. But, deviation is rather prominent when observing the total liability and equity position which is mainly because of reclassification between equity and total liability. However these differences were not much seen in the return on equity, return on asset, total asset turnover and net profit ratios. But there was significant change in the leverage ratio due to the IFRS reporting

Similarly, Bhargava and Shikha (2013) studied on the impact of IFRS on financial statements and some significant ratios with the help Wipro Limited in India. The study revealed that, the IFRS reported 5.92% high in equity than AS financial statement. Similarly the reported amount of noncurrent liabilities and current asset were also high by 20.96% and 1.66% respectively. On the other hand, the current liabilities as well as non-current assets per IFRS were lower than AS by percentage of 12.74% and 0.64% respectively. However the total balancing amount was varied only by 0.79%. The study also found a 0.3% decrease in the reported total revenue and .02% in total expenses resulting in low reported net profit by 0.09% per IFRS. There was difference in the recognition and disclosure of tax between the two standards. They explain that the variation in the assets and liabilities is due to the reclassification among equity and liability and because of the difference in the concept of revenue recognition. The valuation and depreciation of property plant and equipment is also raise difference. The study therefore concluded that IFRS is a fair value principles based accounting which will improve quality of disclosures and enhance international comparability and understanding of financial statements. These conclusions are similar to early research by Swamynathan and Sindhu (2011). Their findings suggest that, IFRS reporting affect liabilities more than assets especially on provision. And the impact of is much seen on balance sheet than the income statement. The study was conducted on only one year financial statement and one company representing a single industry, hence the findings could not be generalize as to the impact remain same for more than one year and for different companies and industries.

A study by the Certified General Accountants Association of Canada (CGA-Canada) in 2013 reveals the following findings on the impact of IFRS adoption financial statement in Canada.

- The analysis of individual differences between IFRS and CGAAP values shows that assets and liabilities are higher in IFRS than in CGAAP; however, these differences are mostly offset in shareholders' equity.
- Sales and operating revenues are reduced under IFRS compared to CGAAP, but profit is higher and other comprehensive income (OCI) adjustments are predominately negative (losses).
- The scale of differences observed in the balance sheet can be striking. For instance, total assets in IFRS are less than half of the total assets in CGAAP for the company that has the largest negative difference in the sample examined and more than double the total assets in CGAAP for the company with the largest positive difference.

- Fair value accounting for investment property, consolidation and strategic investments, financial instruments, and derivatives and hedges are the most important categories of accounting adjustments in the reconciliation of IFRS and CGAAP figures.

The volatility of financial statement figures is mostly higher in IFRS than in CGAAP. This concerns especially the areas of consolidation (including strategic investments), financial instruments (including derivatives and hedges), and fair value for investment property. Specific effects are also traced to a company's sector.

However the study noted that, central values of IFRS financial statement figures and ratios are not significantly different from those derived under CGAAP since the equality of means and the equality of medians are not statistically rejected for all figures and ratios, except net profit/loss.

The analysis was based on a comparison of accounting figures and financial ratios computed under IFRS and pre changeover Canadian GAAP for the same period using a sample of 150 companies listed on the Toronto Stock Exchange which mandatorily adopted IFRS in 2011.

The financial statements for analysis are the profit and loss account and balance sheet. The AS financial statements are taken from the annual reports of the companies whiles the IFRS financial statements are taken from the Form 20F company fillings with the Security Exchange Commission of USA. Unlike other researches such as Ibiamke and Ateboh (2014) and Callo and Lanez (2007) that take two financial statements under different standards from two different years, this study takes all set of financial statements from same accounting year. That is IFRS 2014 financial statement is compared with AS 2014 financial statement. This ensures that the figures are comparable and the real impact is shown. Since there is no Ind.AS financial statement, IFRS financial statements are used as proxy for Ind.AS on the following assumptions;

- From the second year onwards of the adoption of Ind.AS, because most of IFRS 1 and Ind.AS 101 difference is likely to eliminated afterwards.
- The textual difference is ignored
- The entity chooses the option which is same as IFRS where such choice is given by Ind.AS. For instances an entity recognise unrealised exchange difference (Ind.AS 21) on long term items in profit and loss rather than equity.

**3.2 Direct comparison**

The empirical analysis involve the use of accounting figures or amount as reported to explain the difference and impact of various standards on accounting values. The analysis is taken from the two main approach of accounting comparison. That is the figure to figure (direct) and ratio comparison.

Figure to figure (direct) comparison is the comparison that matches each amount to each other on the profit and loss statement and balance sheet under the different standards. Example, net profit under AS is compared with net profit as reported as per IFRS. The comparison will include all items as presented in the financial statement but special attention will be given to key decision items.

Income statement items are revenue, total operating expenses, net profit, total comprehensive income and other relevant items where necessary. The balance sheet items include current assets, non-current, total assets, current liabilities, non-current liabilities and equity\

**Comparative Index Percentage (CIP):** This is the expression of difference as the percentage of the base values; for the purpose of this study, the base is the IFRS value. CIP overcomes the limitation of absolute difference by indicating percentage of changes between the two standards in proportion to the base. Such results can be used to make future inferences on different years figures.

That is if the different between sales of Tata Motors values in AS and IFRS is +20%, then stakeholders can expect that financial statements in the coming years will results into about +20% sales increase amount due to new standard reporting not because of management performance.

$$\frac{\text{IFRS Values - As Values}}{\text{IFRS Values}} \times 100$$

*Interpretations*

CIP = 0, the value per IFRS financial statement is same as the AS financial statement

CIP > 0, (positive CIP) the value of IFRS financial statement is greater than AS financial statement value.

CIP < 0, (negative CIP), the value of IFRS financial statement is less than AS financial statement value.

**4.0 Development of Hypothesis**

**4.1 Hypothesis To Test Consistency Among The Years.**

Since the difference in the standards has existed till date, it is assumed that the difference in their values will be same or consistent over the period. It is therefore expected that there will be no variations in the CIP among the years.

**H0:** There is no variation in CIP values among the years (Standard Deviation = 0) of both companies.

**H1**: There is variation in GCI and CIP values among the years (Standard Deviation > 0) of both companies

**4.2 Hypothesis to test the impact between the companies**

All companies in every industry apply the same set of standards within a country in reporting financial statements. It is therefore expected that all companies will experience same level of impact on its accounting values when there is new set of standards or change in the existing standards. On this assumption it is hypothesis that;

**H0:** There is no difference in the CIP of Infosys Technologies Limited and Tata Motors Limited over the 5 years financial statements.

**H1:** There is difference in the CIP and the GIC of Infosys Technologies Limited and Tata Motors Limited over the 5 years financial statements.

**ANALYSIS AND DISCUSSION**

**5.0 INFOSYS TECHNOLOGIES LIMITED.**

**5.1 CIP of individual Items on financial statement of Infosys Technologies Limited.**

[1]They conducted a study on the impact of IFRS in India by using 8 companies

It was observed that, the difference between AS and IFRS affect almost all the items on the balance sheet in one or more years. Only few items such as trade receivables, unearned revenue, share capital were same per AS and IFRS. There was difference in some items including cash and cash equivalent only in 2010.

As stated early, the 2010 financial statement per AS was prepared in different and more summarised format than other years. Due to this, the difference between AS and IFRS may be caused by classification errors.

It can also be observed from the table that, the difference between AS and IFRS have a high impact on intangible asset and provisions. The CIP of intangible assets started from -630.35% in 2010 to -362.068% in 2014. Which means that, the intangible assets as reported by AS is higher than the IFRS intangible asset to amount of 630% of IFRS value in 2010 and 362% in 2014. In the same line, the provision recognised and measured by AS is higher than that IFRS on average of 405% of the IFRS provision value. While AS, recognise proposed dividend as provision, IFRS does not recognise same. IFRS also use discounting method in recording long term provisions.

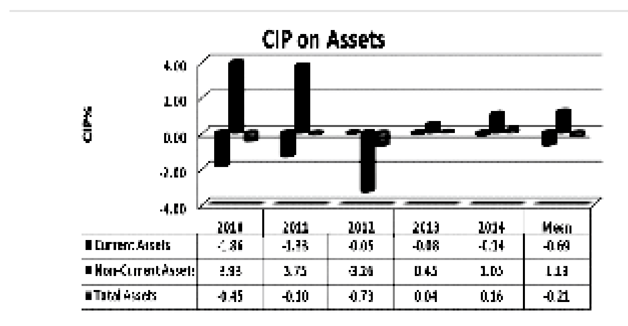
The picture from CIP on income statement seems contrary to the high CIP in the balance sheet. There is marginal impact of the difference between AS and IFRS on the income statement of Infosys. The reported revenue was same for both standards through the five years. There was difference in the reported operating profit because of the difference in the recognition and measurement of some operating expenses including depreciation. Apart from the total comprehensive income, the average CIP of the income statement items was less than 1% of the reported values per IFRS.

It can therefore be concluded that the difference in as and IFRS have much impact on balance sheet valued than the income statement values of Infosys's limited.

**5.2 Comparability Index Percentage on Assets (CIP %)**
From figure 1.0 below, it can be seen that all the asset items have an absolute CIP of less than 4% (+ or -) over the study period. Non-current assets have the highest CIP 3.9% in 2010 to 1.05% in 2014.
This difference can be attributable to the fair valuation of investment property as per IFRS which is not done in AS (investment measured at cost). Another cause of this difference is the recognition of customer relationship as goodwill in IFRS financial statement which is not there in AS.

With the exception of 2012, the value non-current assets reported by IFRS have always been higher than AS values. Contrary, the AS current assets value for all the 5years has been greater than IFRS values (negative CIP). Due to the negative CIP of current assets and positive CIP of non-current assets, the effect on total assets is minimal. The CIP on total asset is less than 1%.
It can also be observed from the figure, that the difference between AS and IFRS asset values decreases in recent times, that is 2013 and 2014. This is because most of the guidance notes issued by ICAI are very close to IAS and IFRS. Again it is very possible that Infosys applies IAS or IFRS in the preparation of as statement in transaction where there is no existing AS standards. The figures in the table on the asset items also show that on average AS total asset value is likely to be higher than IFRS value to about 0.25%. although the value of goodwill and intangible assets of AS were higher, the fair valuation of tangible assets by IFRS were much higher in value which offset the difference in goodwill and tangible asset because the IT industry is more market oriented.
This finding is in sharp contrast with Bhargava and Shikha (2013). However, the figure as well as the standard deviation does not support any consistency or trend that the difference between AS and IFRS was same, over the five the years period.

**Figure 5.1** Comparability Index Percentage on Assets (CIP %)




**5.3 Comparability Index Percentages on Liabilities (%)**
Unlike the assets CIP, the difference between AS and IFRS is averagely more than 50% of the IFRS value in current liabilities. The current liabilities reported by IFRS have always been lower than AS values for the 5 years. In the same vein, the non-current liabilities of IFRS is lower than that of AS but the CIP is about -20% on average. The higher variation among AS and IFRS can be traced to the measurement and recognition of provisions and deferred tax between the two standards.
Whereas, AS recognise proposed dividend as a liability in the related year itself, IFRS does not recognise proposed dividend but rather declared dividend in the subsequent year. This means that the current liability of AS will be higher than IFRS by the proposed dividend. Deferred tax is computed for all timing difference under AS but IFRS recognise deferred tax only on temporary difference. As compared with the

[2]Bhargava and Shikha (2013) found decrease in non-current and increase in current assets per IFRS in Wipro Limited 2009 financial statement

| Number of Internet Banking Branches | | | | | | |
|---|---|---|---|---|---|---|
| period | | Nationalized Banks | SBI and its Associates | Old Private Sector Banks | New Private Sector Banks | Banking Industry |
| pre e-banking period(1997-98 to 2000-01) | 1997-98 | 250 | 344 | 25 | 40 | 659 |
| | 1998-99 | 304 | 530 | 60 | 150 | 1044 |
| | 1999-00 | 308 | 1004 | 180 | 220 | 1712 |
| | 2000-01 | 510 | 1601 | 267 | 620 | 2998 |
| post e-banking period(2001-02 to 2012-13) | 2001-02 | 639 | 2210 | 345 | 721 | 3915 |
| | 2002-03 | 911 | 3145 | 566 | 800 | 5422 |
| | 2003-04 | 1410 | 4415 | 689 | 920 | 7434 |
| | 2004-05 | 1701 | 4849 | 802 | 1001 | 8353 |
| | 2005-06 | 2300 | 5628 | 944 | 1420 | 10292 |
| | 2006-07 | 2906 | 7172 | 1092 | 1521 | 12691 |
| | 2007-08 | 4207 | 7273 | 1142 | 1620 | 14242 |
| | 2008-09 | 4890 | 7374 | 1234 | 1768 | 15266 |
| | 2009-10 | 5634 | 7475 | 1356 | 1890 | 16355 |
| | 2010-11 | 5897 | 7675 | 1567 | 1987 | 17126 |
| | 2011-12 | 6234 | 7778 | 1678 | 2089 | 17779 |
| | 2012-13 | 6590 | 7882 | 1797 | 2196 | 18465 |

Source: compiled from the annual reports, performance highlights various issues (1997-2013) RBI and IBA.

In contrast to the trend of pre e-banking period, the year on year growth and compound growth was found the highest for nationalized bank group (24.76%) and the lowest for new private sector bank group (11.5%) during post e-banking period.

**Table 3.A: Bank group wise growth of Internet-Banking branches of Scheduled Commercial Banks in India between 1998-99 and 2012-13.**

| Period | | Growth of Internet Banking ( in percent) | | | | |
|---|---|---|---|---|---|---|
| | | Nationalized Banks | SBI and its Associates | Old Private Sector Banks | New Private Sector Banks | Banking Industry |
| pre e-banking period(1997-98 to 2000-01) | 1998-99 | 21.60 | 54.07 | 140.00 | 275.00 | 58.42 |
| | 1999-00 | 1.32 | 89.43 | 200.00 | 46.67 | 63.98 |
| | 2000-01 | 65.58 | 59.46 | 48.33 | 181.82 | 75.12 |
| | **Mean** | **29.50** | **67.65** | **129.44** | **167.83** | **65.84** |
| | **ACGR** | **26.90** | **66.90** | **120.30** | **149.50** | **65.70** |
| post e-banking period(2001-02 to 2012-13) | 2001-02 | 25.29 | 38.04 | 29.21 | 16.29 | 30.59 |
| | 2002-03 | 42.57 | 42.31 | 64.06 | 10.96 | 38.49 |
| | 2003-04 | 54.77 | 40.38 | 21.73 | 15.00 | 37.11 |
| | 2004-05 | 20.64 | 9.83 | 16.40 | 8.80 | 12.36 |
| | 2005-06 | 35.21 | 16.07 | 17.71 | 41.86 | 23.21 |
| | 2006-07 | 26.35 | 27.43 | 15.68 | 7.11 | 23.31 |
| | 2007-08 | 44.77 | 1.41 | 4.58 | 6.51 | 12.22 |
| | 2008-09 | 16.23 | 1.39 | 8.06 | 9.14 | 7.19 |
| | 2009-10 | 15.21 | 1.37 | 9.89 | 6.90 | 7.13 |
| | 2010-11 | 4.67 | 2.68 | 15.56 | 5.13 | 4.71 |
| | 2011-12 | 5.71 | 1.34 | 7.08 | 5.13 | 3.81 |
| | 2012-13 | 5.71 | 1.34 | 7.08 | 5.13 | 3.86 |
| | **Mean** | **24.76** | **15.30** | **18.09** | **11.50** | **17.00** |
| | **ACGR** | **23.80** | **14.20** | **17.20** | **11.10** | **16.30** |
| Levene's Test for Equality of Variances | F | 2.706 | 0.000 | 13.32 | 23.148 | 2.214 |
| | **p value** | 0.124 | 0.983 | 0.003 | 0.000 | .161 |
| t- Test for Equality of means | T | 0.367 | 4.678 | 2.511 | 2.356 | 6.086 |
| | **p value** | **0.719** | **0.000** | **0.126** | **0.142** | **.000** |

Source: compiled from the annual reports, performance highlights various issues (1997-2013) RBI and IBA.

In post e-banking period compound average of growth rates of internet banking was found the highest for nationalized banks (23.80 %), followed by old private sector bank group (17.20 %), SBI group (14.20 %) and new private sector bank group (11.10 %). Overall yearly average and annual compound growth of internet banking branches for Indian banking industry was seen higher in pre e-banking phase than post e-banking growth. T-test was applied to examine the significance of difference in the growth rate of internet banking branches between pre e-banking and post e-banking period. Results thus show that p value of Levene's test was more than 0.05 for public sector banks and thus show equal variance. The t test values and corresponding p-values of internet banking branches of SBI group and the whole banking industry are found significant at 1 percent level of significance. So, we states that there is a significance difference found in the growth pattern of SBI as well as whole banking industry between the pre e-banking and post e-banking period. Table 3.A also shows that t-value for difference between two periods (i.e. pre e-banking and post e-banking period) is not significant at 0.05 percent level for other bank groups, hence the growth rate are more or less similar during both the periods in them.

Mobile banking which has drastically cut down the cost of providing service to the customers is another innovative e-channels with banks these days. For service providers it offers the next surest way to achieve growth so mobile banking is getting more and more popular in all bank groups in India. Table 4 presents the number of mobile banking branches of various bank groups during pre e-banking and post e-banking period. During 1997-98, the maximum number of mobile banking branches was in nationalized bank groups (186), and the lowest in old private sector bank group (10). The total number of mobile banking branches of scheduled commercial banks has risen to 19,381 in 2012-13 from 377 branches in 1997-98. Between year 1999 and 2003 SBI and its associates have the highest (1000) number of mobile banking branches followed, with wide difference, by the number of such branches in case of nationalized banks. However, the nationalized banks became the leading banks in this respect during 2003-04 with 1910 mobile banking branches and these banks succeeded to enjoy the leading position in each year till now. The number of mobile banking branches has increased to 11,011 in nationalized banks during 2012-13 from 719 during 2001-02. SBI and, its associates jointly are at number two position among the various bank groups in so far as the mobile banking branches are concerned. The aggregate of the number of mobile banking branches of public sector banks was 1,919 and 15,113 in the years 2001-02 and 2012-13 respectively whereas the private banks had 998 and 4,268 mobile banking branches in the corresponding years. To make the analysis about growth of mobile banking branches more clear and precise, year- on –year growth rates, mean and compound growth rates are computed for various bank groups.

classify any items as other comprehensive income doing the period. The difference between net income CIP and total comprehensive income CIP signals that, the other comprehensive income reported by IFRS have impact on the total earnings of the company.

A comparison between the impact on Infosys limited and Tata Motors suggest that, while IFRS reporting have much impact on Infosys balances sheet, the impact of IFRS is seen much on the income statement of Tata Motors. It can therefore be concluded that IFRS adoption or convergence impact each industry and company differently, depending on the transaction that the company undertake in a financial year.

**6.2 Comparability Index Percentage on Assets (CIP %)**

The figure 6.1 below shows two set of different impact of IFRS on AS financial statement. The first set is IFRS in 2010 and 2011 where the values of both the non-current asset and total assets of IFRS are high than the AS values (that is positive CIP). 2012-2014 which comprises the second set does not only show negative CIP (AS > IFRS), the difference between the CIP among the years are very less as compared with 2010-2011 figures.

The wide difference in 2010 and 2011 can be traced to different financial statement presentation format of AS in those years. It was observed from Tata Motors AS financial statements that, there was less information presented in 2010 and 2011 as compared with the corresponding IFRS financial statement. The negative non-current asset CIP indicates from 2012 onwards, the reported AS non-current asset were higher than IFRS values because of the difference in goodwill recognition.

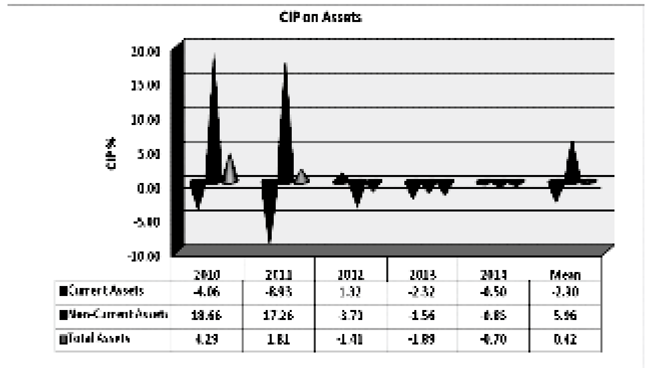
Although previous studies such as Kabir et al. (2010) in New Zealand and Sarbapriya Ray (2012) in India argues that IFRS non-current asset are higher than local GAAP because fair valuation, the high value of goodwill per AS out weights the fair valuation of other IFRS non-current asset. The goodwill of AS is higher than IFRS because, assets and liabilities are measured at book values on business combination but IFRS measure same at fair value.

This means the total assets on acquisition will show less value per AS, resulting to high goodwill. The difference between the current assets by the two standards is due to the classification of some assets as current and non-current asset. Some investments are classified as current assets by IFRS while AS classified them as non-current asset.

Moreover, AS measures other financial liabilities, current investment and financial receivables at cost while IFRS recognised at the discounted value or market value. Interesting, the non-current asset and current assets shows an opposing trend in the first 3 years and same pattern in recent years. The closeness of AS and IFRS from 2012 to 2014 show that the difference between AS and Ind.AS will be less in the coming years.

The graph also shows a decreasing pattern of the CIP over the period. The closeness of AS to IFRS values can be explained from the fact that recent standards and guidelines of ICAI on AS are more close to IFRS than previous years. Most of the guidelines issue by ICAI eliminates the differences between IFRS and AS.

**Figure 6.1 Comparability Index Percentages on Assets (%)**




**6.3 Comparability Index Percentage on Liabilities (CIP %)**

In a same line with the current asset, the current liabilities of AS financial statement have been higher than that of IFRS statement throughout the study period. The average difference is about -2.295% meaning that the current liabilities reported by AS is likely to be higher than IFRS value.

Non-current liabilities on the other hand show that the IFRS figures are higher than that of AS with the exception of 2012. The high value of non-current liabilities of IFRS is due to the recognition of some provision which is not required per AS.

The provision of employee's benefit non-current liabilities for both executive and non-executive directors per IFRS but AS considers executives directors only. The same way AS required the recognition of proposed dividend as provision but same is not allow per IFRS. Another difference is long term provisions are recognised at discounted value under IFRS whereas provisions are recognised at cost per AS making provision per AS higher than IFRS. The mean value indicates that on average the non-current liabilities of IFRS has been higher than that of AS. But the average difference of total liabilities is about –0.05% which means AS total liabilities has been higher than the IFRS values.

The current liabilities (because of the recognition of proposed dividend in AS) of AS is high to netted off the high values of IFRS non-current liabilities making the total liabilities of AS higher than IFRS. The total equity value which also represents the network of the company indicates that AS reported place high value on Tata Motors than IFRS in 2013 and 2014. Contrary, the IFRS reported net worth of 17.63% more in 2010 as well as 2011.

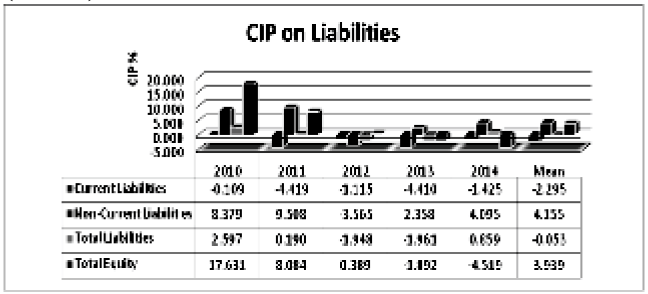
2012 seem to be the changeover year. The average CIP indicates that the equity of IFRS has been 3.939% higher than the reported equity value of as. Neither the equity nor liabilities maintained the same CIP over the periods nor does

[6]Kabir et al. (2010) found that total assets, total liabilities and net profit figures were higher in IFRS-based financial statements. In addition, they noted that IFRS-based adjustments increased goodwill, other intangible assets and investment property amounts.

[7]Sarbapriya Ray (2012) study on Wipro Limited India came out that, the total assets value and total equity per IFRS were all more than AS by 1.37% and 7.28% respectively while the total liabilities were less by 6% in 2008. But in 2009, the total asset and per IFRS was high by 1.94% and total equity was also higher by 8.13%.

figure 5.15 shows any pattern of CIP among the years.

**Figure 6.2 Comparability Index Percentage on Liabilities (CIP %)**




## 6.4 Comparability Index Percentage on Income Statement (CIP %)

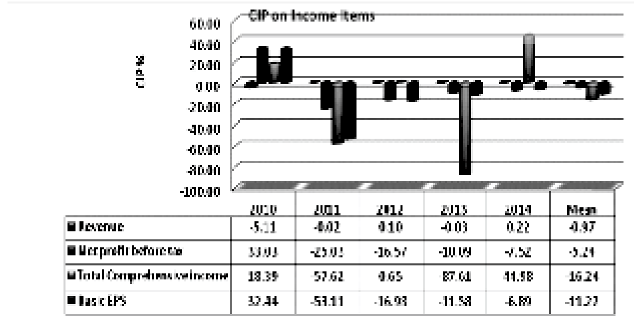
Unlike the revenue of Infosys Limited where there was no difference between the AS reported revenue and that of IFRS revenue, there are some difference in Tata Motors revenue. In some years the revenue of IFRS was higher than AS whereas, as reported revenue was also higher than IFRS in other years; 2010, 2011 and 2013.

This means that IFRS impact more on the revenue recognition of Tata Motors and for that matter automobile industry than Infosys Limited and IT industry in general. It can also be said that the converged IFRS (Ind.AS) will exhibit similar impact. Tata Motors have difference in its revenue because, as big automobile company, it will have long term revenue transactions with government agencies and other big companies. Such transactions may take time to be realised. This brings difference in recognition as per the two standards. AS Revenue is measured at the consideration received or receivable while, IFRS Revenue is measured at the fair value of the consideration received or receivable.

Fair value is determined by discounting all future receipts using an imputed rate of interest. This makes the long term revenue of AS to be higher than IFRS revenue. Although all the other selected income statement items exhibits high CIP as compared with Infosys Limited items, total comprehensive income experience the highest difference with an average of -16.24%.

If the CIP of net profit is linked to the CIP of total comprehensive income it can deduced that, Tata Motors reported high losses in the other comprehensive that is why the CIP on total comprehensive income of AS is much higher than the IFRS. This much difference between the two set standards makes it less comparable.

**Figure 6.3 Comparability Index Percentages on Income statement (%)**




## 7.0 Hypothesis Testing Results

The F- test statistical tool is used to test the hypothesis that, the variation of IFRS impact on Infosys financial statement and that of Tata Motors over the years are the same. The hypothesis was tested at 5% significant level.

The results presented on table 7.0 below shows that there are variations between the years of Infosys and Tata motors CIP on financial statement are significantly different, excluding total equity, cash ratio and Asset/liability ratio.

This implies that the impact of IFRS adoption and convergence in a country affects companies differently and at different financial year. It can also be seen from the table, there is high significant difference of CIP on Infosys and Tata Motors income statement. Thus the F-test probability is 0.000

Sample T-test is also used to find out if the 5 years average CIP of the Infosys Technologies and Tata Motors limited are same or otherwise at 5% significant level. Since both companies apply same accounting standards, it is expected that on average both companies will experience same impact.

The results are presented in the last column of table 5.27. The T-test results shows that the 5 years average on current liabilities, total liabilities, current ratio, debt/equity and profitability of both companies are similar and significant at 5% level.

This implies that, averagely the impact of IFRS adoption have similar impact on those items for both companies. On the other hand, there is difference on the average impact of IFRS on the remaining items between Infosys Technologies (IT industry) and Tata Motors limited (automobile industry)

| | MEAN | | STANDARD DEVIATION | | F-TEST | T-TEST |
|---|---|---|---|---|---|---|
| ITEMS | INFOSYS | TATA | INFOSYS | TATA | | |
| Current Assets | 1.007 | 1.029 | 0.008 | 0.039 | 0.011 | 0.108 |
| Non-Current Assets | 0.988 | 0.940 | 0.029 | 0.110 | 0.025 | 0.140 |
| Total Assets | 1.002 | 0.996 | 0.004 | 0.026 | 0.002 | 0.313 |
| Current Liabilities | 1.542 | 1.023 | 0.288 | 0.020 | 0.000 | 0.008 |
| Non-Current Liabilities | 1.612 | 0.958 | 0.949 | 0.052 | 0.000 | 0.093 |
| Total Liabilities | 1.543 | 1.001 | 0.306 | 0.019 | 0.000 | 0.008 |
| Total Equity | 0.998 | 0.961 | 0.106 | 0.090 | 0.751 | 0.276 |
| Revenue | 1.000 | 1.009 | 0.000 | 0.019 | - | 0.202 |
| Net profit before tax | 1.002 | 1.052 | 0.002 | 0.224 | 0.000 | 0.323 |
| Total Comprehensive income | 0.990 | 1.162 | 0.008 | 0.549 | 0.000 | 0.258 |
| Basic EPS | 1.001 | 1.058 | 0.001 | 0.226 | 0.000 | 0.186 |

**8.0 Findings**

The wide deviations in 2010 shows that the format of presentation of accounts can also create difference in accounting valuation between two set of standards

Both CIP and GIC of 2012 financial year were found to be outliner of all the items under financial statement analysis for both companies. The figures obtained in 2012 were either the highest or lowest value during the 5 years period. Although this research could not establish any economic reasons behind the figures for this trend, it can be said to some extent that is due to the IFRS issued after 2011. The ICAI last issue of new or revised as was in July 2011 hence any new standard by IASB was not incorporated in the local standard. However, the ICAI where issuing guide notes in order to reflect the changes in the global accounting reporting. These notes started effectively in 2013 and it was optional. Therefore the gap between AS and IFRS was not much catered for during the 2012 reporting year.

The findings on goodwill and intangible assets are in sharp contrast to that of Kabir et al (2010) in New Zealand. Their research noted increase in goodwill and intangible asset in IFRS prepared financial statement. Their study also argues that IFRS adjustment decrease employee's benefit, this is also opposite to the findings of this study. Employee benefit increase per IFRS in the Indian context because the local GAAP did not recognise the benefit of non-executive directors as part of the employees benefit but IFRS includes all directors, both executive and non-executive.

Contrary to many previous researches CGA-Canada (2013), Kabir et al (2010), (Bhargava and Shikha 2013), etc. this study found that, that Ind.AS is likely to reduce the non-current values of company due to fair valuation on goodwill at acquisition. Ind.AS requires goodwill to be calculated on the fair value of the identifiable assets and liabilities of the subsidiary. This will results to recognition of less goodwill as compared with AS where goodwill is calculated on book values of the subsidiary identifiable assets and liabilities.

Similarly, Ind.AS is also likely to decrease the liabilities values especially provisions on the financial statement. AS (local GAAP) explicitly state that provisions should not be discounted to their present value. But Ind.AS requires provisions to be discounted to their present value where the effect of the time value of money is material. The discount rate to be applied for such calculations is generally the pre-tax incremental borrowing rate of the company. Discounting will result in lower provision upfront and higher interest cost over the provision period purchases are recorded at the amount payable to the supplier.

Under Ind.AS, due to application of the initial fair valuation principles, purchases with any deferred terms will be recorded at their cash price equivalent (which may be determined using present value of future payments). Moreover, AS recognise proposed dividend as current provision relating in the financial year which dividend relates to while Ind.AS will not recognise proposed dividend as provision but will recognise in subsequent accounting year when is declared at Annual General Meeting. This timing difference can reduce the liabilities of a company in an accounting year to extent of the dividend amount.

This study did not find any consistency on the impact of Ind.AS on accounting values. This means that, the impact difference between Ind.AS and AS values are not same from one year to another even on specific item in financial statement. However the differences in value between the two standards are decreasing in recent times. Hence the difference of year cannot be used to predict the following year impact. In same way, it is likely that the difference in Ind.AS and IFRS will not be consistent because most of the difference between Ind.AS and IFRS are one time transactions which does not affect financial statement regularly.

**9.0 Conclusion**

The impact of Ind.AS will be different from industry to industry. AS demonstrated under the hypothesis testing in the previous chapter, the average impacts of 5 years, as well as the variations among the 5 years from the two companies are not same. This implies that each company or industry will experience different impact from Ind.AS. From the study, it was also observed that Ind.AS will have much impact on income statement of automobile companies than IT companies. Generally, Ind.AS will affect the balance sheet much as compared to the income statement because Ind.AS is more balance sheet oriented.

The study therefore concludes that, Ind.AS financial statement will have comprehensive disclosures but is not likely that, accounting values on the face of the financial statement will be higher than AS (local GAAP) financial statements due to the book value recognition of goodwill, intangible and provisions of AS compared with IFRS conservative fair value recognition.

This research has set the grounds for future study in areas like industrial analysis on IFRS convergence, information quality and relevance of Ind.AS and Indian GAAP (AS)

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# Positioning in the Smartphone Market

***Dr. Monika Gupta Vashisht**
**** Dr. Anil Chandhok**

**Abstract**

User-Friendliness, affordability and technology are important intangible factors taken into consideration during purchase of Smartphone by the users. This study makes an attempt to position select Smartphone brands: Micromax, HTC, OPPO, Gionee, Apple, Blackberry, HP, Dell and Samsung in Ambala District, Haryana. Positioning of select Smartphone brands was done using MEXL to discover consumers' evaluation of select Smartphone brands along major dimensions of Value and Status Symbol. 200 consumers from Ambala District, Haryana were approached for personal interviews. The data was collected from family, friends, and acquaintances of the researchers via Convenience Sampling. The owners/ managers need to position/ reposition these Smartphone brands so as to maintain their 'uniqueness'. The results revealed that Micromax is the most preferred Smartphone brand for customers seeking 'Value' whereas Apple is preferred most by shoppers seeking 'Status Symbol'.

**Keywords:** Smartphone, Positioning, Value, Status Symbol, Technology Advancement

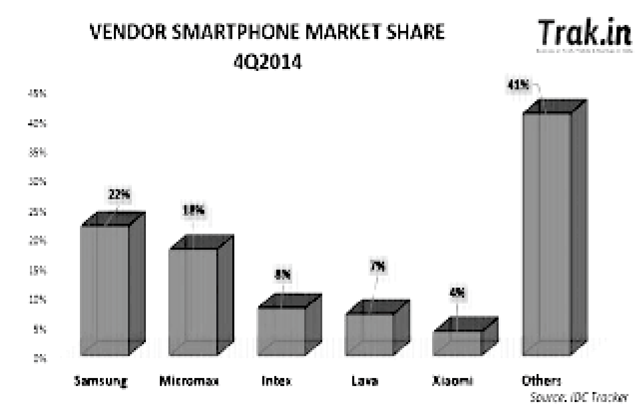
## Introduction

India has become the third biggest market in the world based on number of smartphones sold (According to research firm Canalys). India also has second-highest number of mobile phone accounts in the world after China. As buyers are upgrading from feature phones, low-priced smartphones have become the top sellers in the country.

**PWC India (2014)** observed that one-seventh (15% approx.) of active mobile-voice subscribers prefer to access the Internet through mobile phones (India had 130m mobile-Internet users as of December 2013). Increases in the number of smartphones and 3G subscriptions are further driving this growth. The number of smartphone users is expected to witness a 91% CAGR from 2012 through 2016, hop from 29m to 382m. Likewise, the number of 3G subscribers might reach an 84% CAGR—from 23m to 266m during that time.

"India will exceed 200 million smartphone users, topping the US as the world's second largest smartphone market by 2016" (eMarketer report). In emerging markets, new opportunities for marketing and commerce lie in inexpensive smartphones where many consumers had no access to the Internet earlier. In mature and established markets, smartphones are shifting the model for consumer media usage and motivating the marketers to preferably to be mobile-centric.

In the smartphone market in India in 2014 Q4, Samsung, the Korean major, retained its leadership position with a 22% share, despite the shrunk in the overall market by 4%. The fall might be due to a high channel inventory at the beginning of the quarter amongst general trade, the reason being which might be caused by the flow eye witnessed in online sales during festive season (IDC market research report). Smartphones contribute to 35% of overall mobile phones business in the country. The overall mobile phone market reached at 64.3 million units in the fourth quarter of 2014. Samsung's smartphone market share fell down two percentage points during the quarter due to hard competition from Apple and Xiaomi and Motorola. Online brands have great affect on Samsung's 'value for money' category (IDC market research report). Xiaomi held 4% market share in the fourth quarter. Micromax, the in-house player, retained its second position with 18% market share. Intex, with more than a two-fold increase, reached the third position besides focused product launches and media advertisements. Lava, with 7% share, fell down to the fourth position; remained consistent and stable with good visibility of its distributors. Shipment role from vendors such as Asus, HTC and Microsoft has observed toehold recently.




IDC report also spotted that Smartphones general growth remained quite healthy despite fall in shipments on quarterly basis. The market research firm also observed movement from feature phones to smartphones is speeding up. In last one year, feature phones' market share has fallen from 78% to 65% whereas Smartphone market share has increased from 22% to 35%.

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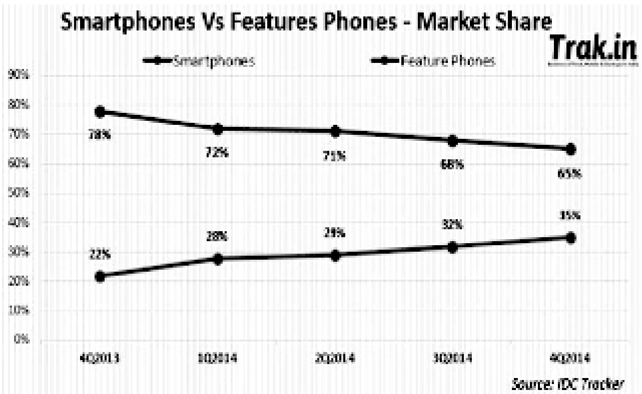



"In the current market scenario, there is an increase in demand for products with high specification at low price. The report also suggested that the demand for 4G-enabled smartphones will increase in 2015 as telcomm companies are going to launch 4G services. "Operators are gearing up for 4G network rollout. For vendors and ecosystem partners, importance is given to 4G enabled handsets and that too at competitive prices (Kiran Kumar, Research Manager, client devices, IDC India).

Domestic firm iBall replaced the electronics giant as top vendor in tablet in the Indian market. Mumbai-based iBall overtook Samsung in the Indian tablet market with 15.6 per cent share in the October-December quarter, with total shipments of 0.96 million units.

According to research firm Canalys, Micromax (22 per cent share) had overtaken Samsung (20 per cent) as number one seller in the last quarter of 2014, whereas other research firms like Counterpoint and GfK found Samsung as a leader in the Indian smartphone market.

## Review of Literature

**Mata, F. R.S. (2012)** conducted the exploratory qualitative research as a desk research, utilizing various sources of secondary data in the field of strategic management. This research is focused on a case study about Nokia: corporate restructuring to support the strategies; analysis of attempts made to withstand competition in the smartphone market considering current data sources, including the opinions of market analysts' and business experts'. As a result, a framework was developed for in-depth analysis of firms' competitiveness in highly dynamic markets. It is concluded that the success of a firm results from the relationship of various factors. Nokia needed to reinvent its core strategy such as the adoption of the open innovation concept, to regain the leader position in the mobile smartphones' industry.

**Namasivayam, Dr.S., Prakash, M. and Krishnakumar, M. (2014)** conducted the study about the various aspects of customer satisfaction on Samsung smart phones in Coimbatore city and satisfied the following objectives i.e. handling convenience in Samsung smart phones and the quality of service provider in Samsung smart phones. The target respondent included those customers who were using the Samsung smart phones. The collected data was edited, coded and tabulated by using some statistical tools. The survey helped to make identification over its strength and weakness of Samsung smart phones.

**Patel, Dr. R. K. (2014)** conducted the study with aim to assess the current smart-phone market in India and to identify the opportunities for Lumia. The study focused on customer buying behavior, their needs, what offerings they perceived as useful and finally what contributed to their satisfaction. The study also focused on the existing Lumia customers, their assessment of its performance and suggested areas for improvement. The study was done by means of qualitative and quantitative research through focus group discussions, expert interviews, online surveys, etc.

**Rani, S. and Sharma, N. (2014)** analyzed the consumer preference for brand of Smartphone (in Rohtak city) and made an attempt to determine whether there is a significant difference between preferences for features of smart phones on the basis of gender (special reference to Blackberry, Nokia, Samsung and Apple). An empirical study using descriptive research design and convenience sampling was applied. Data was collected with the help of questionnaire and independent sample t-test was used for analysis. The study's measure findings revealed that maximum Smartphone users were female respondents who were students and have income level 5000-30000 P.M. The male respondents were found to be more aware about Smartphone features as compared to female respondents.

**Suki, N. M. (2013)** examined structural relationships of brand name, price of the product, features of the product and social influence with demand for Smartphones among Malaysian students'. The data was collected from 320 university students who have experience in using and owning Smartphones via a closed-ended, structured questionnaire, making use of a convenient sampling technique. Empirical results revealed that brand name has maximum effect on the increasing demand for Smartphones among Malaysian students, followed by social influence.

**Swenters, J. (2012)** made an attempt to create a knowledge basis that helps understanding the smartphone market and the ongoing operating system standard war. It provided an elaborate theoretical framework and used it to build a comprehensive case study. In order to compete with Google and Apple, the players need to focus on running a solid operating system on qualitative devices and developing a vibrant platform community.

## Objective

To position select Smartphone brands in Ambala District, Haryana based on shopper perceptions of existing Smartphone brands along various attributes, customer preferences for Smartphone brands, and measures of behavioral responses of customers toward the Smartphone brands.

## Research Methodology

Primary Data and Secondary Data Collection Method methods were used to collect the relevant data via Structured Questionnaire from 200 shoppers in Ambala District, Haryana. Convenience Sampling Method was used for the purpose.

**Data Analysis**

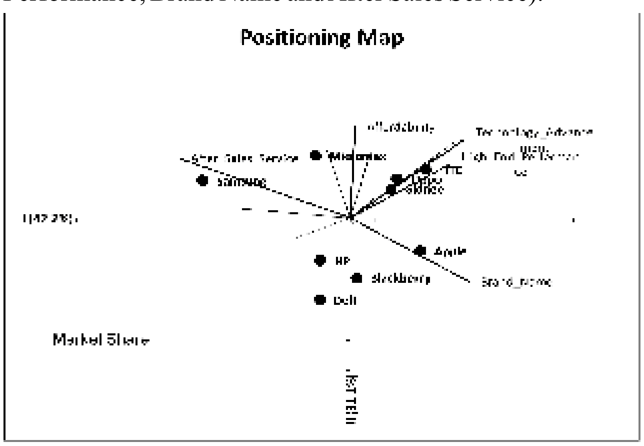
Marketing Engineering for Excel **(MEXL)**, Tutorial, Version 2.0. "Positioning" submenu has been used to analyze the data. Marketing Engineering for Excel (ME>XL) refers to Marketing Engineering software as an Excel Add-in.

**Positioning Analysis and Perceptual Mapping Model**

Positioning Analysis software incorporates several mapping techniques that enable owners and managers to develop differentiation and positioning strategies for their Smartphone brands. Perceptual-mapping helps owners and managers understand how customers view their Smartphone brand(s) relative to competitive Smartphone brands.

**Positioning Analysis**

**Perceptual data** refer to customer perceptions of the Smartphone brands along those selected attributes. For example, they indicate how the target market perceives Apple on the 'Status Symbol' dimension (but not actual 'Status Symbol' ratings of Smartphone brands). Perceptual data comprises the number of dimensions (rows) along which the Smartphone brands were compared (viz. Affordability, Technology Advancement (Innovation), High End Performance, Brand Name and After Sales Service).



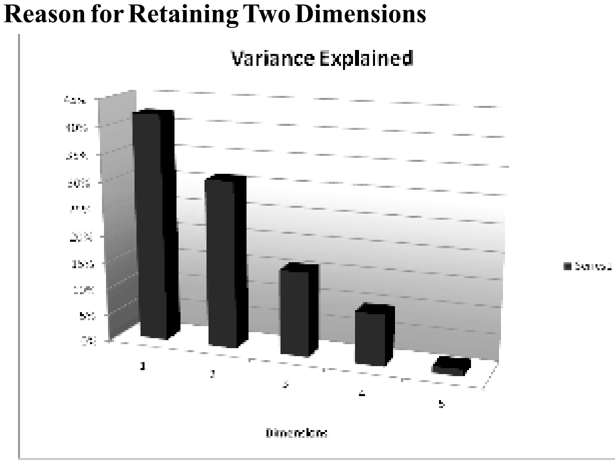

**Positioning Map(s):** The generated positioning map(s) consists of: One map to retain two dimensions (X-Y).

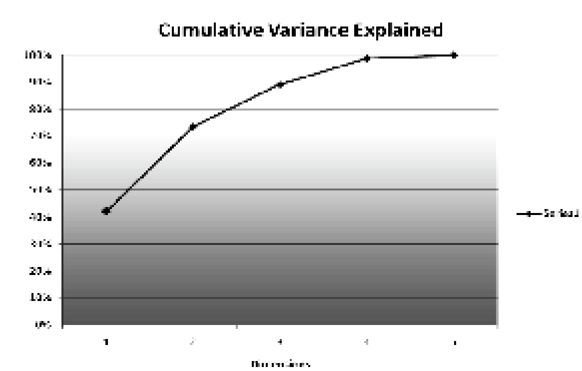
Perceptual map: depicts a data matrix that consists of the average perceptions of different Smartphone brands (i.e. choice alternatives) in a target segment. The perceptions measures rely on selected attributes of the Smartphone brands, and the resulting map provides a visual representation, in two dimensions, of how the target segment perceives all the Smartphone brands.

**Data Interpretations**

- The distances between Smartphone brands on the map indicate their perceived similarities. Smartphone brands that are close together are perceived as similar, whereas those that are far apart are perceived as different.
- The axes of a perceptual map are the aggregate dimensions (or composite attributes) along which customers tend to discriminate Smartphone brands. Attributes aligned close to each axis provide clues of the meaning of that axis.
- The variance explained by each axis indicates the relative importance of that axis for explaining customer perceptions. The variance explained by the horizontal dimension is 42.2% and the variance explained by the vertical dimension is 31.1%, it indicates the horizontal dimension is nearly one-and-a-half times as important in explaining customer perceptions.
- The lines on a perceptual map indicate the direction in which an attribute increases while moving away from the origin along that line. For example, if the 'Technology Advancement' attribute uses a 1-5 scale, in which 5 represents the highest level of Technology Advancement, then Technology Advancement increases along that line and away from the origin.
- The length of a line on the map indicates the variance in that attribute explained by the perceptual map. The longer a line, the greater is the importance of that attribute in differentiating among Smartphone brands in the market.
- To position a Smartphone brand on any attribute on the map, an imaginary perpendicular line can be drawn from the Smartphone brand to the attribute. The farther a Smartphone brand is from the origin along the direction of that attribute, the higher is the rating of the Smartphone brand on that attribute.

**Reason for Retaining Two Dimensions**



The first two factors capture 73% of the variance in the initial data, and adding a third factor captures only an additional 16%. Since the third factor does not capture significantly more variance (compared with the first two), only two dimensions (first two) are retained.

**Managerial Implications and Discussion**

MEXL was used to discover consumers' evaluation of QSR along two major dimensions of:

- **Status Symbol** (Dimension I) and
- **Value** (Dimension II).

The results revealed that Apple is the most preferred Smartphone brand for customers seeking 'Status Symbol' whereas Micromax is preferred most by shoppers seeking 'Value' based brand. Rani, S. and Sharma, N. (2014) found status symbol as one of the reasons of selection of current Smartphone besides features that gave them many facilities like internet and many apps. In light of these prevailing market conditions, the report makes the following 3 broad strategic recommendations: 1) Continuous Innovation, 2) Android Presence, 3) Functionality Cantered R & D and Marketing Campaigns (Patel, Dr. R. K., 2014).

**Conclusion**

Innovation has always found its place in the Smartphone market (HTC). The owners and managers in Ambala District, Haryana needed to focus more on positioning/ re-positioning of their Smartphone brands for the long-run success of their brand(s). This can be further strengthened by research activities in determining the rapid shift in buyers' perceptions of existing Smartphone brands (and new concepts) along various attributes and their preferences for Smartphone brands, and measures of the behavioral responses of customers toward the Smartphone brands, thereby, formulating innovative marketing practices well in time before another shift occurs in the customer behavior. In summary, the market represents a vast untapped potential with Smartphones becoming Status Symbol for consumers today. Patel, Dr. R. K. (2014) indicated certain crucial insights regarding the purchase behavior of consumers regarding the purchase triggers, frequency of purchase, brand loyalty, valued offerings etc.

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# Innovations In Banking Services For Sustainability : Perspective And Challenges

***Mr. Naresh Kumar**
****Dr. (Mrs.) Sudesh**

**Abstract**

**"If there is one aspect in which we can confidently assert that India is ahead of China, it is the robustness and soundness of our banking system." - Dr. Manmohan Singh**

Over the last three decades the role of banking in the process of financial intermediation has been undergoing a profound transformation in the global financial system. India's banking system has seen some major innovations in the past decade like IMPS, CTS, NUUP, facebook banking, responsible banking, green banking, SMS banking, missed call banking and many more value added services. In increasingly integrated financial systems facing more competition, higher volatilities and wide varieties of risks; innovations have become an essence to provide new products and strategies to better suit different circumstances of time and market and to meet different requirements of participants. This research paper focuses on different service and technology innovations in Indian banking sector in recent days. It also highlights the challenges of innovative banking trends. Total five banks are selected as sample namely State Bank of India, Bank of Baroda, Punjab National Bank, ICICI Bank and YES Bank. 4P's Service Innovation model & Six Dimensional Service Innovation Model are applied on the current strategies of service innovation adopted by selected banks. The present study concludes that despite of numerous challenges faced by banks, the benefits of technology have brought a huge change in the outlook of modern banking.

**Keywords:** CTS, Facebook Banking, IMPS, NUUP

## Introduction

India is one of the top ten economies in the world where the banking sector has tremendous potential to grow. India's banking sector is currently valued at Rs. 82 trillion (US$ 1.37 trillion). As per industry report by RBI, it has the potential to become the fifth largest banking industry in the world by 2020 and the third largest by 2025. The face of Indian banking has changed completely due to innovations from last decade. Now, banks are reaching out to the masses with technology to facilitate transactions through mobile devices and internet. Competition among the banks has redefined the concept of the entire banking system. Banks are looking for new strategies to attract and retain the customers as well as gain competitive advantage over their competitors in the market. They are using innovative sales and advanced marketing techniques to gain supremacy. The main cause behind this change is changing customers' needs and expectations. Customers no longer want to wait in long queues and spend hours in bricks & mortar banks for single banking transaction. This change leads the bank to development of SMS banking, facebook banking, mobile and internet banking along with availability of service right at the customer's doorstep. With the help of universal banking, banks provide all banking products and services under one roof. While banks are moving towards "Relationship Banking", customers are moving away from the confines of traditional banking and seeking the convenience of remote electronic banking. Information technology has brought revolution in the working of banks and financial entities all over the world.

Innovation is the application of better solutions to meet new requirements, unarticulated needs/demands or existing market needs. The term innovation can be defined as something new, original and important in whatever field that breaks into or obtains a foothold in a market or society (Lundvall, 2007). Technological innovations comprise significant technological changes of products and processes. Metcalfe (2006) defined service innovation as a new service concept, service delivery system or client interaction channel that leads to one or more renewed service functions that are new and require new technological, human or organizational capabilities of the service organization.

Technology has been playing a crucial role in the tremendous improvement of banking services and operations. Indian banking industry has moved way ahead both in terms of offering value added services and delivering quality service. It is a well proven hypothesis that sustainable profit for the banks depends on innovation. It was thought that the world financial crisis would impact the Indian banking sector in a serious manner. But, due to strong foundations of Indian banking system with full support from well structured financial systems, the anticipated impact of the world crisis was almost insignificant. Instead, it helped the banks to get strengthened further and become closer to the customer with innovative approaches. Because of innovation, banks appear to be on the path of achieving sustainability and a long-term survival. So, banks need to be able to make the investment and sustain the environment and the culture of innovation.

## Review of Literature

Vaish (1978) documented that service sector especially banking sector has become a dynamic component of economic activity and growth. The observable growth in internet, web-based services and high-technology

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environmental services indicates that knowledge intensive services are having a greater value added role in economic growth. The composition of banking transactions signifies the economic happenings in the country. Technological developments have made a sea change in the banking system from a totally regulated environment to a market driven competitive system. Avasthi & Sharma (2000) reported that advancements in technology are set to change the face of banking business. Technology has transformed the delivery or service channels in retail banking. The study also explored the challenges that banking industry and its regulator face. Janki (2002) described that how technology is affecting the employees' productivity. In India particularly public sector banks will need to use technology to improve operating efficiency and customer services. The study concludes that technology is the only tool to achieve their goals. Jalan (2003) articulated that IT revolution has brought about a fundamental transformation in banking industry and opined that no other sector has been affected by advancement in technology as much as banking sector. Bradley and Stewart (2003) observed that technological change and the advent of the internet are among the most dramatic and challenging areas of change for service sector. Study identified that technological innovations in the banking sector have been shown to increase productivity of banking industry around the world. Mittal and Kumar (2007) studied the role of technology in banking sector. Authors analyzed investment scenario in technology in Indian banks but this study was related to the time period before the Information Technology Act and at that time technology in Indian banks was very low. Jha et al. (2008) analyzed the use and effectiveness of information technology in the Indian Banking sector. Authors observed that the technology up-gradations, innovations and its access to various functional areas of banking are of the highest level in India and banking being one of the fastest growing sectors of the Indian economy where technology is customer-oriented service.

From the above reviews it is observed that the banking industries itself adopted various innovative schemes for furtherance of their business and to attract more and more customers. All these help them to maintain their sustainability and keep their brand image even in the competitive environment. Further, it is observed that major innovations took place in this field in recent years.

**Research Methodology**

Descriptive research design is used for current study as it describes and analyses the data representing the behaviour of the phenomena and their relationship. Total five banks are selected as sample, out of which three are public sector banks namely State Bank of India, Bank of Baroda and Punjab National Bank; and remaining two are private sector banks namely ICICI Bank and YES Bank. Study is purely based on secondary data which is collected mainly from official websites of selected banks and RBI. Two models of service innovation- 4P's Service Innovation model & Six Dimensional Service Innovation Model are applied on the current strategies of service innovation adopted by selected banks. An analysis has been carried out by applying these models for identifying and comparing various strategies adopted by the selected banks.

**Objectives of the Study**

1. To study the recent service and technology innovations in banking sector.
2. To study the challenges faced by banks in changing banking scenario.

**Technology Innovations**

Information technology has given rise to new innovations in the product designing and their delivery in the banking and finance industries. Financial innovation associated with technological change totally changed the banking philosophy and that is further tuned by the competition in the banking industry. Challenging business environment within the banking system create more innovation in the fields of banking product, process and market.

Aadhaar Payments Bridge System (APBS)

It is a system that facilitates seamless transfer of all welfare scheme payments to beneficiary residents' Aadhaar Enabled Bank Account. This system serves the goal of Government of India and Reserve Bank of India in financial inclusion by way of processing government disbursement like LPG subsidies using Aadhaar number.

Immediate Payment Service (IMPS)

IMPS is an instant and 24x7 interbank electronic money transfer service through mobile phones in India. This facilitate customers to use their mobile instruments as a channel for accessing their bank accounts and put interbank fund transfers in a high secured manner with immediate confirmation features. IMPS funds transfer can be done through Mobile Number and MMID & Account Number and IFSC.

National Unified USSD Platform (NUUP)

It is a mobile banking service provided by National Payment Corporation of India (NPCI) which works on USSD technology. Unstructured Supplementary Service Data (USSD) is a technology unique to GSM (Global System for Mobile Communications) handsets. The service allow every banking customer to access banking services with a single number across all banks irrespective of the telecom service provider, mobile handset company or the region. A common platform for all banks instead of each bank having to develop a platform is a strategic move by NPCI to help banks and let them focus on customers to enable this service while NPCI manages the technology behind the platform. Customers can access the mobile banking menu of bank just by dialling the short code *99# from their mobile phone. The maximum limit of fund transfer per customer on this service is Rs.5000 per day and Telecom Service Providers will charge for accessing this service.

Green Banking

Green Banking is comparatively a new development in the financial world. It is a form of banking taking into account the social and environmental impacts and its main motive is to protect and preserve environment. Green Banking means promoting environmental-friendly practices and reducing carbon footprint from banking activities. This comes in many forms like using internet banking instead of branch banking and paying bills online instead of mailing them.

Facebook Banking

It is a service that allows you to link your Facebook profile to your Mobile Banking profile. It enables you to check your balance, recharge mobile and transfer funds on Facebook. A first-of-its kind app on Facebook "Pockets by ICICI Bank" offers you the convenience of banking on Facebook. All you need to do is generate a coupon for the required amount and send it to your friend via SMS/E-mail/Facebook personal notification. Your friend can redeem the same instantly in his any bank account by authenticating himself and the job's done.

Responsible Banking

Responsible Banking approach makes the best use of skills and resources and achieves the greatest impact in a business-like, commercially viable manner – addressing social, environmental and financial benefits for banks and customers by bringing about a systemic change rather than an isolated one-off intervention. It aligns with bank core business, strategically differentiates the bank in a crowded marketplace, helps in developing financial solutions for developmental problems, and underpins each transaction via the Environment and Social Policy.

ASBA

Application supported by Blocked Amount (ASBA) enables investors to apply for IPO/FPO/NFO issues without making immediate payment. The application amount is "Blocked" in investor's Bank account and is released in a proportionate amount on allotment of shares.

Cash Deposit Machine

Cash Deposit Machine (CDM) is self-service terminal that enables you to deposit cash without any manual intervention of the branch officer. There is no need to fill deposit slips and stand in long queues at the cash counter. To use the CDM, you need to have Bank Debit Card or Bank's account number in which you wish to deposit the money.

Cheque Truncation System (CTS)

Truncation is the process of stopping the flow of the physical cheque issued by a drawer at some point with the presenting bank en-route to the drawee bank branch. An electronic image of the cheque is transmitted to the drawee branch by the clearing house instead of physical movement along with relevant information like date of presentation, presenting bank and MICR band etc. With introduction of this system, there has been a quantum jump in the number of cheques processed through this system particularly at New Delhi and Chennai, reflecting the growing acceptability of the system. As the coverage of CTS is further widened by bringing more centres under its umbrella, the volumes will grow further spreading the benefits of this system to a larger number of customers.

Missed Call Banking

It is a new service from banks which involves Banking by giving a Missed Call to pre-defined mobile numbers. This service is available for saving, current, overdraft and cash-credit accounts. Services include balance enquiry, mini statement, blocking of ATM card, car and home loan enquiry. This service can only be activated for the mobile number that is registered for a particular account with the Bank.

Service Innovation Models

Several innovation models have been proposed by various authors under various titles. For the purpose of this study, two models of service innovation are considered. The first one is 4P's Service Innovation Model given by Bessant and Tidd; and second one is Six-Dimensional Service Innovation Model given by Pim Den Hertog.

4P's Service Innovation Model

Bessant and Tidd (2007) identified 4P's of innovation: Product Innovation, Process Innovation, Position Innovation and Paradigm Innovation. Product Innovation is new designs of products or features seen in tangible products such as house appliances, etc. Process innovation consists of fundamental changes in fabrication procedures or modifications in manufacturing methods, sequence or equipments which are used to create products. Position innovation refers to contextual shifts with regard to the way products/services are introduced. Paradigm innovation refers to change in mental models which frame the actions or behaviours of a social entity and motivates their interest in performing new routines or engaging in practices that may have previously been devalued. Thus, a paradigm innovation may lead to shifts in perceptions, values and belief systems that generate new actions and behaviours as well as motivate new practices or routines. Banks can satisfy their customers only by providing customized, cost effective and timely services. With the help of technology banks are able to provide plethora of products and services to their customers which suit them.

Six Dimensional Service Innovation Model
A conceptual framework for service innovation was developed by Pim Den Hertog (2010) through a Six-Dimensional Service Innovation Model. They define Service Innovation as a new service experience or service solution that consists of one or several dimensions. The first dimension is Service Concept or Service Offering. The second dimension is the New Customer Interaction and the role customers play in the creation of value. The third dimension is the New Value System or set of new business partners who co-produce a service innovation. The fourth dimension is related to new revenue model. The fifth dimension is the New Delivery System. The sixth dimension is New Technology.

**Application of Service Innovation Models**

An analysis has been carried out by applying service innovation models for identifying and comparing various strategies adopted by the selected banks.
**(See Table 1 and Table 2)**

**Table 1: 4P's Service Innovation Model**

| *Banks* | *Product Innovation* | *Process Innovation* | *Position Innovation* | *Paradigm Innovation* |
|---|---|---|---|---|
| **State Bank of India** | One Rupee Bank / E-RAIL | SMS Unhappy | Expansion Abroad | Doorstep Banking |
| **Punjab National Bank** | Xpress Money Remit Card | Miscall Banking/CDM | Expansion Abroad | Mobile Banking |
| **Bank of Baroda** | Baroda SME Gold Card/ Pension AADHAAR Card | Sustainable Investment Banking | Project- Navnirmaan | Service Delivery |
| **ICICI Bank** | 3-in-1 Online Trading Account | IMPS/NUUP | APBS | Facebook Banking |
| **Yes Bank** | Honey Farming | Responsible Banking | Entrepreneurship Programme | Bricks and Clicks Model |

**Source:** Compiled by authors

**Table 2: Six Dimensional Service Innovation Model**

| *Banks* | *Service Offering* | *New Customer Interaction* | *New Value System* | *New Revenue Model* | *New Delivery System* | *New Technology* |
|---|---|---|---|---|---|---|
| **State Bank of India** | Broking Services/ Domestic Treasury | Crorepati Only Branch | Link with Kirana Shops | One Rupee Banking | Online Account Opening | Banking Anywhere |
| **Punjab National Bank** | E-Tax Payment/Online Loan Application Service | Single Window Service | Mobile Banking/ Internet Banking | Merchant Banking/ Insurance | Doorstep Banking Services | Cash Deposit Machine |
| **Bank of Baroda** | NRI Services | ASBA/Rural Banking | Baroda e Shoppe | Wealth Management | Online Feedback System/e-Lobbies | Baroda Instapay |
| **ICICI Bank** | Tab Banking Services | Referral Programme | Facebook Banking | My Money Service | Online Account/ Insurance | Digital Banking |
| **Yes Bank** | Yes PayNow/ Yes Remit Services | YES First Women | Knowledge Banking | Money Monitor/Cash Management Services | Double Security | YES Touch |

**Source:** Compiled by authors

**Challenges**

The banking industry is changing at a phenomenal speed. While at the one end, we have millions of savers and investors who still do not use a bank, another segment continues to bank with a physical branch. Banks are setting up alternative delivery channels to cut down their operating costs like internet banking, mobile banking, SMS banking, Facebook banking and centralized transaction processing etc. Technological changes in Indian banking system presents unique opportunities and challenges for the banking industry. Developing or acquiring the right technology, deploying it optimally and then leveraging it to the maximum extent is essential to achieve and maintain high service and efficiency standards while remaining cost effective and delivering sustainable return to shareholders. Managing technology is therefore a key challenge for the Indian banking sector. Developing countries like India have a huge number of people who don't have access to banking services due to scattered and fragmented locations. But if we talk about those people who are availing banking services, their expectations are raising as the level of services are increasing due to the emergence of Information Technology and immense competition between the services & products provided by different banks. The primary challenge is to give consistent service to customers irrespective of the kind of customer whether rural or urban. Retention of customers is going to be a major challenge. Even with SMS Banking, Phone Banking and Internet Banking many consumers still prefer the personal touch of their neighbourhood branch bank.

However dependency on the network has brought IT department's additional responsibilities and challenges in managing, maintaining and optimizing the performance of retail banking networks. Ensuring that all bank products and services are available at all times and across the entire organization to generate revenues and remain competitive. Besides, there are network management challenges whereby keeping these complex, distributed networks and applications operating properly in support of business objectives becomes essential. Specific challenges include ensuring that account transaction applications run efficiently between the branch offices and data centres. Banks in India will now have to work towards a vision to have an enhanced retail delivery system. Such a system would include transformed branches, enhanced telephone services and leading-edge internet banking functions that provide a consistently positive multi-channel experience for the customer. Some of others challenges that the banks are facing today are diversified needs of customers, diminishing customer loyalty, coping with regulatory reforms and keeping pace with technology up-Gradations.

**Conclusion**

India is fastest growing economy in the world where the banking sector has tremendous potential to grow. Today mobility and customer convenience are viewed as the primary factors of growth and banks are continuously exploring new technology with terms such as mobile solutions and cloud computing. Now the goal of banking is not just to satisfy but also to engage with customers and enrich their experience. This can be done through use of service and technology innovations. Due care will have to be made while embracing technology and transforming traditional touch points to electronic ones so that human touch with customers is also not lost. With technology occupying a pivotal role in delivery of banking services, the expectations of the consumer have also been growing. Broadly, these expectations are swift service with minimal response time, efficient service delivery, tailor-made and value-added products to suit specific needs, hassle-free procedures, minimum transaction costs and personalized service. However, Indian banking industry faced the numerous challenges such as increasing competition, diversified needs of customers, diminishing customer loyalty and keeping pace with technology up-Gradations; the benefits of technology have brought a huge change in the outlook of modern banking

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# Corporate Financial Disclosures In Banking Companies: Public Vs Private

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## Abstract

Corporate financial disclosure is an obligation of company to release its performance for the particular years. It not only improves the confidence of its users but also motivates to carry on with the activities of the company. The study scrutinizes the compliance of such disclosure in Indian banking companies. It is an empirical analysis of the degree of mandatory disclosure in financial reports as per ICAI. The sample consists of 30 banking companies selected on the basis of market capitalization. The study revealed that there are high-disclosure practices among selected companies which compliance to mandatory accounting standards. Another objective is to know the disclosure practices and some variables impacting on profit efficiency of the banking industries. The variables that are selected for the study are deposits of customers, advances, disclosure score, interest income, and number of offices which are considered as influencing variables of net profit. Thus, relatively high and moderate correlations were observed among different variables and disclosure score.

**Keywords:** Accounting standards, Disclosure index, Net Profit, Deposits and Market Capitalization.

## Introduction

Corporate disclosure of financial reports helps the investors, lenders and several other users to analyse the past performance of the company and to compare its performance with other peer companies' performance for the particular years. The disclosure can be done through various ways similarly the disclosure through annual report plays an important role. Likewise, in 19th century, dividend declared was the only form of disclosure created by corporate. The quality of reporting of financial performance has now witnessed to be improved due to government norms and regulation. The ICAI (Institute of Chartered Accountant of India) is the accounting Standards Board of India which was formed on 21 April, 1977. One of the major objectives of ICAI is to prepare the accounting principles which will be applicable to Indian corporate/ enterprises. Primarily, the nature of these accounting standards was recommendatory to all companies but from some previous years it was become mandatory for some companies.

In India, the mandatory disclosures are required as per the provision of companies' act 1956 and its various amendments. According to the section 11 of companies' act 1956, requires that every company should showed the true and fair view of its state of affairs and result of its operations at the end of their financial year. Recently, on July 01, 2012 the ICAI has also declared various Accounting Standards which were mandatory in nature.

## Review of literature

Coombs, H. M. and Tayib, M. (1998) examined in their study about the financial reporting traditions in two divergent economies i.e. U.K and Malaysia. The paper tried to identify the impacting factors of financial information and the users behind it. The outcome of the study was such that there was some significant differences were found between the U.K and Malaysia economies in terms of accounting disclosure by the companies particularly in case of revenue account. Other finding was that UK local authorities were more responsive as compared to Malaysian local authorities, but they both had very high compliance with the Code of practice.

Joshi A. (2004) had analyzed the impact of company characteristics such as Age, Deposit, Loans & Advances, Share Capital and PAT (Profit after tax but before Appropriation on various disclosure pattern of Director's Report). The company for the samples were IFCI, IDBI, SBI, HDFC & SIDBI banks of India. Annual reports were collected and the items disclosed in Director's Report are selected by Observational and dichotomous technique. The study conducted the correlation between director's reports disclosure index and above variable. It was found that there were negative association between age, deposits, Loans & Advances & PAT with disclosure pattern.

Hossain M. (2008) had examined the compliance of mandatory corporate governance disclosure of the Indian banking companies. According to the results, a high level of compliance existed amongst the Indian banks and that the parameters of size, ownership, board composition, and profitability, have significant impact in the corporate governance disclosure. A separate disclosure index had been derived to know the correlation between the above parameters and disclosure practices. A significant correlation between such variables was found in the study.

Sharma N. (2011) has discussed about the corporate social responsibility and reporting practices in Indian banking sector. It explained the concept of Corporate Social Responsible as an organisation's commitment that operates in a communally responsible manner. The paper considered the social as well as environmental factors of corporate financial matter. The business structure have increased manifold and with this intricacy the role of sustainable development have been increased. Hence, the call for enhanced transparency in financial matter of company disclosure has also magnified the quality of CSR. As such corporate enterprises and authorities had taken the action towards CSR principles were quite satisfactory.

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Kumar M. & Sharma N. (2011) examined the corporate financial reporting practices in respect to banking companies in India. This study was based on Annual reports of Indian Banking companies. Total twelve voluntary items have been selected from past review of literature some of them were financial ratios, HRA, cost statement, financial results (overview), economic value added, Export-Import details etc. the major finding of the study was that the voluntary financial practices of disclosure were adopted in both the public as well as private sector banks of India.

Bhrahmbhatt M. et al (2012) empirically investigated the corporate governance scenario in public as well as private banks in India from investors and financial advisors perspective. With the use of questionnaire and corporate governance score card, the paper came to conclusion that some difference were found in the annual reports of private and public sector banks in respect to rate of corporate governance. It was also revealed in the study that major mandatory factors were disclosed but some non-mandatory considerations were not included in the corporate financial system.

Das S. K. (2012) supposed that Corporate Social Responsibility (CSR) in respect to financial disclosure were developed steadily in India although it was started earlier. This practice has assumed to be important for corporate world especially for banking companies. The present endeavour was based on case study method and efforts were made to access the reporting practices of Indian Financial sector. It was highlighted from the case study there were direct relationship were found in all the financial and banking institutions of the country with respect to social as well as development banking approach. It was further viewed that whatever the CSR by this sector activities are happening were focussed on education, rural development and women empowerment.

Dhanapal C. And Ganesan G. (2012) had explored the possibility of getting more deposits by efficient and timely services and also measured the impact of some variables of E-banking products on satisfaction of customer. Five service quality dimensions were derived in the paper namely reliability, responsiveness, assurance, empathy and tangibles based on the need and obligation of the customers.

Kaur H. (2012) had attempt to find out the difference in the corporate governance disclosures of private and public sector banks in India. Eight broad parameters have been used according to the clause 49 of the SEBI using content analysis. The study was based corporate governance disclosure practices between public as well as private sectors banks in India. The sample size was 5-5 each from public as well as private banks in India. The private sector banks included in sample are Axis Bank, HDFC Bank, ICICI, Karur Vyasa Bank, Indus Ind Bank and Oriental Bank of Commerce, State Bank of India, Bank of Baroda, Syndicate Bank and Central Bank of India are the sample public sector banks for the study. It had been found in the study that all the banks whether public or private have integrated their vision and philosophy on Corporate Governance in their annual reports.

**Methodology**

The study focuses on disclosure practices in the banking sector of India. The content analysis technique has been used to empirically investigate the data. To test the disclosure status an index has been developed based on the past review of literature and annual reports of the banking companies. According to disclosure index, score of '1' was awarded if an item was reported; otherwise a score of '0' was awarded.

The parameters that have taken into consideration are the accounting standards that are mandatory by ICAI as on 1st July 2012. Thus, out of 29 standards only 21 standards are considered suitable for the study such as: Disclosure of Accounting Policies, Cash Flow Statements, Contingencies & events, Net Profit or Loss Account, Changes in Accounting Policies, Revenue Recognition, Accounting for Fixed Assets, Foreign Exchange Rates, Accounting for Investments, Employee Benefits, Borrowing Costs, Segment Reporting, Related Party Disclosures, Leases, Earnings Per Share, Consolidated Financial Statements, Accounting for Taxes on Income, Accounting for Investments (Consolidated Financial Statements), Intangible-Assets, Interests in Joint Ventures, Impairment of Assets and Provisions, Contingent` Liabilities & Contingent Assets. (ICAI, 2013)

The population for the study is private and public sector banks of India. On the basis of convenience sampling top 30 banks have been selected for the study according to the market capitalization which consists of each from public and private sector banks. The secondary source of data had been collected from the publications of Reserve Bank of India, Money control, Ministry of Industry and Commerce, ICAI, Journals and Periodicals. The reference period of this study is 2013-14. Relevant statistical techniques such as Correlation analysis, regression analysis, descriptive statistics and Frequency distribution table have been applied using software MS Excel and SPSS 20. Net Profit is considered as a dependent variable and some indicators such as deposits of customers, advances, disclosure score, interest income, and number of offices as independent variables.

**Objective:**

The objectives of the present study are:

1. To examine the corporate financial disclosure status in India.
2. To make a comparative study of mandatory financial disclosure in the Indian public as well as private sector banks.
3. To identify the significant relationship between independent variables and the net profit of banking

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Companies.

**Hypotheses:**
For objective one no such hypothesis is formed as the study is of qualitative in nature, where as for 2nd and 3rd objectives following hypotheses have been framed:

H0A: There is no significant difference in corporate disclosure practices between Indian public and private sector banks.

H1A: There is significant difference in corporate disclosure practices between public sector and private sector banks in India.

H0B: There is no favourable relationship between independent variables and the net-profit of banking companies.

H1B: There are some favourable relationship between independent variables and the net-profit of banking companies.

**Multiple Regression Model:**
For executing the third objective of the study, correlation analysis and multiple regression technique has been used. For regression analysis, the model has been built to ascertain the relationship between Net Profit and some influencing variables of banks assuming disclosure score as one of the variable.

The operational form of regression model is as under:

$Y = \alpha + \beta\ 1DOC + \beta 2\ Int\_Inc + \beta 3\ Dis\_Sc + \beta 3\ NoO + e$

Where,

Y = Dependent variable i.e., Net profit of the year
β = Beta coefficient,
DOC = Deposit of Customers,
Int_Inc = Interest Income,
Dis_Sc = Disclosure Score,
NoO= Number of Offices.

**Discussion & Analysis**
Keeping in view the objectives of the study, the results have been analysed under the following mentioned heads:

**Corporate Financial Disclosure Status**
The financial reporting and disclosure practices in India are regulated and prepared by the Companies Act 1956, the rules of the Securities and Exchange Board of India and approval of the Institute of Chartered Accountants of India (ICAI). As such on 1st July 2012, ICAI has declared some mandatory and non-mandatory accounting standards for Indian companies. The list of mandatory and non-mandatory accounting standards are as follows:

**"Table 1 about here"**

**Disclosure Practices in Banking Companies:**
The mandatory disclosures of accounting standards by banking companies were found as under:

**"Table 2 about here"**

The table 2 demonstrates that corporate financial disclosure score indicating high level of compliance with mandatory accounting standards. It was analysed that out of whole sample, only six banks complied with maximum disclosure i.e 100 percentages they are State Bank of India, Axis Bank, Union Bank, Central Bank of India, Karur Vysya Bank and Bank of Maharashtra (Kaur H., 2012). It was analysed from the higher index score that disclosure practices of financial reports are equally dominated by both private banks as well as public banking companies.

On other hand, it has also been observed from lower score of disclosure index that the public sector banks are lower as compared to private sectors banks. Thus, it reveals that the private sector banks are more transparent in regards to disclosure practices. Hence first null hypothesis is rejected against alternate hypothesis on the ground that there were similar disclosure practices in private vs. public banks in India. But to some extent, it was also found that private banks are more compliance with disclosure practices of corporate reports as compared to public sector banks.

The descriptive statistics for the above disclosure index is as follows:

**"Table 3 about here"**

The average score of the disclosure index is indicated as 18.79 i.e. 90.55%. The minimum score of disclosure stood at 16 points i.e. 76.19%. It means that no banking company have less than 76.19% score. On other hand 21 were the highest score in which six banks follows maximum i.e., 100% disclosure practices.

**Correlation & Multiple Regression Analysis**
To scrutinize the variables that influencing the profit of the banking companies, some independent variables were considered for the study. These variables have been chosen on the basis of past review of literature such as deposits, interest income, advances, disclosure score and number of offices. Thus, correlation and multiple regression techniques will analyse the cause and effect relationship between dependent variable and independent variables.

**A: Correlation Analysis**
The table 4 provides a summary of variables used in the study and matrix of multiple correlations for regression analysis. The data are tested statistically using Spearman correlation coefficient at 1% level of significance. It was analyzed from the results that there were positive and high correlations among some variables. The matrix of correlation analysis is given below:

**"Table 4 about here"**

According to the above table , Net-profit showed strong and positive correlation with deposits of customers (.875) and interest income (.745); while moderately correlated with Number of offices (.665) and weak relationship with

disclosure score (.300) is depicted. On the other hand very weak correlation found between advances and net profit. The above data were tested at 1% level of significance. Hence, relatively high and moderate correlations were observed among different variables such as deposits, interest income, number of offices and disclosure score with Net profit whereas advances demonstrated weak correlation with net profit (Hossain M., 2008 & Joshi A., 2004). Therefore, it cannot be preceded further for regression analysis.
Thus, the null hypothesis (H0B) is rejected and alternate (H1B) is accepted because there were significant relationship between the dependent variable and other independent variables except advances.

**B. Regression Analysis**
The results of the regression analysis and coefficients of Net-Profit of the banks are given in the following table:

**"Table 5 about here"**
The table 5 explains the regression coefficients of the model. Standardize Beta coefficients have been considered in the study which refers to how many standard deviations a dependent variable will change the net profit while F-Value is used to test the hypotheses.

The model for the multiple regression equation on Net Profit is derived as:
Net Profit = 25433.355 + 1.026 Deposits + .0344 Interest Income - .078 Disclosure - .401 No. of Offices.
Thus the above equation is the result of regression analysis which explains that if other variable will get zero, the net profit must be stood at 25433.355 million rupees.
The ANOVA tests the validity of the regression model fit and the output is given in the following table:

**"Table 6 about here"**
The F value showed the model adequately fit at 1% level of significance. Accordingly null hypothesis (H0B) is rejected and alternate hypothesis is accepted as value of F is greater than Significance.

**"Table 7 about here"**
The table 7 depicts that 92.1% of the variance in net profit is accounted by deposits, interest income, disclosure score and number of offices. Deposits and interest income showed positive relationship while the inverse relationship between disclosure factor and number of offices with net profit was found. It means that company would follow disclosure practices when the earning capacity of the company will tend to reduce. Also in case of number of offices, it doesn't have much impact on Net profit (Hossain M., 2008 & Joshi A., 2004). It may be noted due to presence of erection cost, the opening of large number of offices would reduce the net profit of the company.

**Findings of the Study**
The findings of the research paper may be summarized as under:
1. There was high as well as familiar financial disclosure practices followed in public and private banking companies.
2. Among all the sample banks, State Bank of India, Axis Bank, Union Bank, Central Bank of India, Karur Vysya Bank and Bank of Maharashtra were considered superlative banks in terms of disclosing practices.
3. The Net profit showed high correlation with deposits of customers at 0.875 and interest income at 0.745; while moderately correlated with Number of offices at 0.665 and weak relationship with disclosure score at 0.300 were depicted. On the other hand, very weak correlation was found between advances and Net profit.
4. Since, advance on loan is showing very weak correlation with net profit therefore it is not preceded for regression analysis. But disclosure score is considered suitable for study of regression analysis with net profit.
5. The result of the regression model is 92.1 % of the variance in net profit is accounted by deposits, interest income, disclosure pattern and number of offices. Deposits and interest income showed positive relationship while there were inverse relationships between disclosure factor as well as number of offices with net profit.

**Conclusion**
Financial Disclosure of company's performance is an essential duty of any company and it will lead to enhance investor's confidence for particular company. The others stakeholders of the company may also look into performance of the company and can take any decision regarding their own interest. Hence the paper analysed the disclosing practices of top 30 selected banking companies in India as per market capitalization. There were 29 mandatory accounting standards but only 21 standards were considered for the study as some of the them are not applicable in the banking industry. It was found that banking companies are highly compliance with the mandatory financial disclosure practices. Afterwards, the paper analyzed the impact of disclosure score on net profit of the banking company along with some more variables such as deposits of customers, interest income, advances and number of offices. To know the cause and effect relationship, the correlation analysis and multiple regression techniques have been used taking net profit as the dependent variable. Deposits and interest income showed positive relationship while there were inverse relationships between disclosure score as well as number of offices with net profit. Therefore we may conclude that disclosure of financial reports does not make much effect on profit of the company directly but indirectly it will improve investors and customers confidence.

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**ANNEXURE:**

**Table 1: Accounting Standards as Disclosure Parameters**

| | |
|---|---|
| **Mandatory Accounting Standards:** | |
| AS 1 | Disclosure of Accounting Policies |
| AS 2 | Valuation of Inventories |
| AS 3 | Cash Flow Statements |
| AS 4 | Contingencies and Events Occurring after the Balance Sheet Date |
| AS 5 | Net Profit or Loss for the period, Prior Period Items and Changes in Accounting Policies |
| AS 6 | Depreciation Accounting |
| AS 7 | Construction Contracts (revised 2002) |
| AS 9 | Revenue Recognition |
| AS 10 | Accounting for Fixed Assets |
| AS 11 | The Effects of Changes in Foreign Exchange Rates (revised 2003) |
| AS 12 | Accounting for Government Grants |
| AS 13 | Accounting for Investments |
| AS 14 | Accounting for Amalgamations |
| AS 15 | Employee Benefits (revised 2005) |
| AS 16 | Borrowing Costs |
| AS 17 | Segment Reporting |
| AS 18 | Related Party Disclosures |
| AS 19 | Leases |
| AS 20 | Earnings Per Share |
| AS 21 | Consolidated Financial Statements |
| AS 22 | Accounting for Taxes on Income |
| AS 23 | Accounting for Investments in Associates in Consolidated Financial Statements |
| AS 24 | Discontinuing Operations |
| AS 25 | Interim Financial Reporting |
| AS 26 | Intangible Assets |
| AS 27 | Financial Reporting of Interests in Joint Ventures |
| AS 28 | Impairment of Assets |
| AS 29 | Provisions, Contingent` Liabilities and Contingent Assets |
| **Non-mandatory Accounting Standards:** | |
| AS 30 | Financial Instruments: Recognition and Measurement and Limited Revisions to AS 2, AS 11 (revised 2003), AS 21, AS 23, AS 26, AS 27, AS 28 and AS 29 |
| AS 31 | Financial Instruments: Presentation |
| AS 32 | Instruments: Disclosures |

**Source:** Self-Compiled from ICAI website

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**Table 2: Disclosure Index**

| Ranks | Banks | Disclosure Score | Disclosure Percentage | Bank Category |
|---|---|---|---|---|
| 1. | State Bank of India | 21.00 | 100.00 | Public |
| 2. | Axis Bank | 21.00 | 100.00 | Private |
| 3. | Union Bank | 21.00 | 100.00 | Public |
| 4. | Central Bank of India | 21.00 | 100.00 | Public |
| 5. | Karur Vysya Bank | 21.00 | 100.00 | Private |
| 6. | Bank of Maharashtra | 21.00 | 100.00 | Public |
| 7. | Kotak Mahindra | 20.00 | 95.23 | Private |
| 8. | ING Vysya Bank | 20.00 | 95.23 | Private |
| 9. | Corporation Bank | 20.00 | 95.23 | Public |
| 10. | South Indian Bank | 20.00 | 95.23 | Private |
| 11. | HDFC Bank | 19.00 | 90.47 | Private |
| 12. | ICICI Bank | 19.00 | 90.47 | Private |
| 13. | Bank of Baroda | 19.00 | 90.47 | Public |
| 14. | Induslnd bank | 19.00 | 90.47 | Private |
| 15. | Punjab National Bank | 19.00 | 90.47 | Public |
| 16. | Syndicate Bank | 19.00 | 90.47 | Public |
| 17. | Jammu & Kashmir Bank | 19.00 | 90.40 | Private |
| 18. | Andhra Bank | 19.00 | 90.47 | Public |
| 19. | Indian Overseas Bank | 19.00 | 90.47 | Public |
| 20. | State Bank of Bikaner | 19.00 | 90.47 | Public |
| 21. | Dena Bank | 19.00 | 90.47 | Public |
| 22. | Karnataka Bank | 19.00 | 90.47 | Private |
| 23. | Bank of India | 18.00 | 85.71 | Public |
| 24. | IDBI Bank | 18.00 | 85.71 | Public |
| 25. | Federal Bank | 18.00 | 85.71 | Private |
| 26. | Allahabad Bank | 18.00 | 85.71 | Public |
| 27. | Oriental bank of Commerce | 17.00 | 89.95 | Public |
| 28. | Indian Bank | 17.00 | 89.95 | Public |
| 29. | Canara Bank | 16.00 | 76.19 | Public |
| 30. | UCO Bank | 16.00 | 76.19 | Public |

**Source:** Self composed after content analysis

**Table 3: Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. deviation |
|---|---|---|---|---|---|
| **Disclosure Score** | 30 | 16 | 21 | 18.76 | 1.54 |
| **Disclosure %** | 30 | 76.19 | 100.00 | 90.5583 | 6.55950 |

**Source:** Results of SPSS

**Table 4: Correlation Analysis**

| | Deposits of Customers | Advances | Interest Income | Disclosure Score | No. Of Offices |
|---|---|---|---|---|---|
| **Net Profit (Spearman Correlation)** | .875* | .267 | .745* | .300* | .665* |
| **Significance** | .000 | .077 | .000 | .050 | .000 |

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

**Table 5: Coefficient of regression**

| Model[a] | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| (Constant) | 25433.355 | 24743.069 | | 1.028 | .314 |
| Deposits of customers | .019 | .005 | 1.026 | 4.056 | .000 |
| Interest Income | .062 | .031 | .344 | 2.023 | .054 |
| Disclosure score | -1762.163 | 1333.311 | -.078 | -1.322 | .198 |
| No. of Offices | -5.343 | 2.959 | -.401 | -1.806 | .083 |

| Model[a] | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| (Constant) | 25433.355 | 24743.069 | | 1.028 | .314 |
| Deposits of customers | .019 | .005 | 1.026 | 4.056 | .000 |
| Interest Income | .062 | .031 | .344 | 2.023 | .054 |
| Disclosure score | -1762.163 | 1333.311 | -.078 | -1.322 | .198 |
| No. of Offices | -5.343 | 2.959 | -.401 | -1.806 | .083 |

a. Dependent Variable: Net profit of the year 2012 in Rs million.

**Table 6: ANOVA**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | **Regression** | 32662679035.363 | 4 | 8165669758.841 | 73.016 | .000[b] |
| | **Residual** | 2795834868.600 | 25 | 111833394.744 | | |
| | **Total** | 35458513903.963 | 29 | | | |

b. Predictors: (Constant), Deposits, Interest Income, Disclosure score and No. of offices.

**Table 7: Regression Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| **1** | .960[a] | .921 | .909 | 10575.13 |

a. Predictor: (Constant), Deposits, Interest Income, Disclosure score and No. of offices

**Table 8: Data of Disclosure Index and variables (in millions Rs)**

| Banks | Disclosure Score | Disclosure % | No. of Offices | Deposits | Interest Income | Advances | Net Profit |
|---|---|---|---|---|---|---|---|
| HDFC_Private | 17.00 | 89.95 | 2186.00 | 2467064.46 | 272864.00 | 1954200.29 | 51670.90 |
| SBI_Public | 20.00 | 95.23 | 14316.00 | 10436473.62 | 1065214.53 | 867578.89 | 186860.10 |
| ICICI_Private | 16.00 | 76.19 | 2780.00 | 2554999.56 | 335427.00 | 2537276.58 | 64652.60 |
| Axis_Private | 18.00 | 85.71 | 1657.00 | 2201043.03 | 219946.00 | 1697595.39 | 42422.10 |
| Kotak_Private | 20.00 | 95.23 | 363.00 | 385365.21 | 61802.00 | 390792.32 | 10850.50 |
| BOB_public | 20.00 | 95.23 | 3992.00 | 3848711.00 | 33096.05 | 287377.29 | 50069.60 |
| Induslnd_Private | 17.00 | 89.95 | 397.00 | 423615.50 | 53592.00 | 350639.51 | 8026.10 |
| PNB_Public | 20.00 | 95.23 | 5739.00 | 3795884.79 | 364280.00 | 293774.76 | 48842.00 |
| Canara_Public | 19.00 | 90.47 | 3631.00 | 3270537.00 | 308506.00 | 232489.82 | 32827.10 |
| BOI_Public | 21.00 | 100.00 | 4021.00 | 3182160.00 | 284807.00 | 248833.34 | 26775.20 |
| union_public | 19.00 | 90.47 | 3329.00 | 2228689.00 | 211443.00 | 177882.08 | 17871.40 |
| IDBI_public | 21.00 | 100.00 | 972.00 | 2104925.61 | 233699.30 | 181158.43 | 18943.40 |
| ING_Vysya_Private | 20.00 | 95.23 | 541.00 | 351954.19 | 38568.00 | 287366.72 | 4563.00 |
| Syndicate_Public | 19.00 | 90.47 | 2707.00 | 1579411.00 | 152684.00 | 123620.17 | 13133.90 |
| Federal_Private | 19.00 | 90.47 | 956.00 | 489371.22 | 55584.00 | 377559.86 | 7768.00 |
| OBC_Public | 19.00 | 90.47 | 1814.00 | 1559649.00 | 158149.00 | 113049.81 | 11415.60 |
| CBI_Public | 16.00 | 76.19 | 4134.00 | 1961733.00 | 191495.00 | 147512.85 | 5330.40 |
| Indian_Public | 18.00 | 85.71 | 1993.00 | 1208038.00 | 122313.00 | 903236.00 | 17552.70 |
| Allahabad_Public | 21.00 | 100.00 | 2572.00 | 1595930.80 | 155232.78 | 1111450.99 | 18667.90 |
| Corp_Public | 18.00 | 85.71 | 1454.00 | 1361422.00 | 130178.00 | 100469.02 | 15060.40 |
| JK_Private | 20.00 | 95.23 | 555.00 | 533469.02 | 48355.77 | 330774.22 | 8032.50 |
| UCO_Public | 19.00 | 90.47 | 2389.00 | 1540034.90 | 146323.72 | 1155400.10 | 11086.70 |
| IOB_Public | 18.00 | 85.71 | 2676.00 | 1784341.76 | 178970.84 | 1407244.44 | 10501.30 |
| Karur_Private | 17.00 | 89.95 | 479.00 | 321115.93 | 32704.00 | 239491.86 | 5017.20 |
| Andhra_Public | 21.00 | 100.00 | 1712.00 | 1058512.18 | 113387.28 | 836418.27 | 13446.70 |
| BOM_Public | 17.00 | 89.95 | 1632.00 | 765286.51 | 72139.64 | 560597.64 | 4259.60 |
| SouthIND_Private | 18.00 | 85.71 | 711.00 | 365005.35 | 35834.00 | 272807.36 | 4016.60 |
| SBB_Public | 20.00 | 95.23 | 1036.00 | 615720.92 | 62913.58 | 492443.27 | 6520.30 |
| Dena_Public | 19.00 | 90.40 | 1281.00 | 771667.97 | 67941.28 | 566925.38 | 8031.40 |
| Karnatak_Private | 16.00 | 76.19 | 527.00 | 316083.24 | 31129.00 | 207206.98 | 2460.70 |

Source: Compiled from annual reports and RBI bulletin

# Corporate Working Capital Management Practices in the Backdrop of Recent Global Recession: A Comparative Evaluation

***Priyansha Mahajan**

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## Abstract

The Global Recession (2008) that had its roots in U.S. subprime crisis has been documented in many of the latest research papers as by far the deepest global recession since the great depression. This crisis that initially seemed to be localized in the U.S. financial system exploded into a severe global recession percolating through the international trade, financial flows and commodity prices to other countries around the globe on account of interdependence and synchronization among them. These disruptions spilled-over to corporate sector in India reflecting through their reduced sales and cascade onto their profits. Consequently, to deal with the disruptions following the global recession, companies are likely to alter their day-to-day operational decisions in terms of working capital management practices. In this backdrop, the present paper makes a comparative evaluation of working capital management practices of Indian companies during pre-slowdown period and slowdown period.

***Keywords:*** *Sub-prime Crisis, Economic Recession, Economic Slowdown and Working Capital Management Practices.*

## Theoretical Framework

The Global Recession (2008) that had its roots in U.S. subprime crisis has been documented in many of the latest research papers as by far the deepest global recession since the great depression. This crisis that initially seemed to be localized in the U.S. financial system exploded into a severe global recession percolating through the international trade, financial flows and commodity prices to other countries around the globe on account of interdependence and synchronization among them. The countries that are open to international trade, their exports are likely to get adversely affected by the external demand shocks in case the countries that constitute their export destination are undergoing an economic recession. However, if it is the case of a general recession having a global reach (recent global recession as an instance), the worldwide macroeconomic instability and uncertainty elicit an acute loss of confidence and pessimism among consumers and raise doubts regarding the possibility and timing of economic recovery. Resultantly, it leads to the collapse of domestic demand as well because people curtail their consumption to be able to save more and be better prepared for even the worst. The composite outcome of the decline in exports as well as domestic demand is that eventually the corporate sector has to bear its spill-over effects in terms of declined product demand reflecting through their reduced sales and cascade onto their profits. Consequently, to deal with the disruptions following the global recession, companies are likely to alter their day-to-day operational decisions in terms of working capital management practices.

The present research paper is organized as follows. The second section presents a brief elucidation of the empirical works on the subject. The third section illustrates the econometric approach adopted in the study. The fourth section presents the comparative evaluation of working capital management practices of Indian companies during pre-slowdown period (2005-06 to 2007-08) and slowdown period (2008-09 to 2009-10). The final section summarizes and concludes the empirical findings of the paper.

## Review of Literature

Working capital refers to the firm's investment in current assets which are held to carry on production and achieve sales. This concept of working capital is commonly known as gross working capital and focuses attention on two aspects of current assets' management i.e. determining optimum level of current assets warranted by particular units of output/sales and financing pattern of current assets. Current assets of a firm are supported by long-term sources of finance, short-term bank financing and spontaneous current liabilities i.e. trade creditors (Chandra, 1992 p.252). Based upon the mix of long-term and short-term financing, the firms may follow matching, conservative or aggressive approaches to finance its current assets. Net working capital i.e. the excess of current assets over current liabilities indicates the extent to which current assets have been financed from long term sources of funds. Working capital management is concerned with both the adequacy of current assets and level of risk posed by current liabilities (Hampton, 2006 p.177). The current assets should be sufficiently in excess of current liabilities to constitute a margin or buffer for maturing obligations within the ordinary operating cycle of a business (Pandey, 2013 p.657). Therefore, adequacy of current assets in conjunction with their efficient management virtually determines the solvency or liquidation of a firm. Pandey, 2013 p.658 states, "Firms maintaining an adequate investment in current assets will have no difficulty in paying off creditors, as and when due, and will be able to ensure smooth production and fill sales orders. However, to the extent the investment in current assets is idle, the firm's profitability will suffer".

Working capital management has been ragarded as one of the cornerstones of business continuity and operates as a buffer against the tightened credit during economic crises (Kesimli and Gunay, 2011). Nevertheless, the recent economic downturn with crimping consumer demand put squeeze on

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the corporate revenues and profit margins and thereby, affected the most important source of working capital (Enqvist et al., 2013). In this regard, Correa and Lootty (2010) found that firms from six countries of Eastern Europe and Central Asia relied more on their internal sources to finance working capital as a reaction to the global financial crisis. Unfavourable economic conditions compel the firms to alter their practices with respect to inventory, accounts receivables, accounts payables and thereby, causing the firms to use more or less working capital (Duggal and Budden, 2012). The study conducted by Kesmili and Gunay (2011) analysed that the crisis affected the working capital management practices of the companies in Istanbul. Duggal and Budden (2012) found that companies retained more cash and cash equivalents indicating a shift in the efficient frontier during global recession.

Another strand of literature suggests that firms may use a mix of short-term and long-term funds to finance their working capital needs but the shrinkage of these sources of funds during economic crisis make the working capital financing difficult (Tong and Wei, 2008). However, when firms allocate more of their internally generated funds to finance working capital, fewer resources become available for investments in new equipments, labour training, and Reserach & Development, which in turn tends to curb firms' productivity as well as profitability (Correa and Lootty, 2010). Not only this, the recent global economic crisis strained cash flows of companies on account of non availability of working capital, thereby leading to shrinkage of operations, postponement of capital expansion plans to different markets, etc. (Kesmili and Gunay, 2011 and Mwangi et al., 2014). Working capital management decisions are strategic in nature because they affect the firm's profitability and firm value (Kestens et al., 2008, Vural et al., 2012 and Wu, 2012). Enqvist et al. (2013) using a dataset of Finnish companies over eighteen years found that the impact of business cycles on relationship between working capital management and firms' profitability became more pronounced in economic downturns relative to economic booms. Kesimli and Gunay (2011) articulated that the companies optimally managing their working capital during recession came out stronger post-recession. The authors further add that it is easier to forecast working capital needs and manage liquidity during boom while the real test comes during bust. In this backdrop, it is likely for the companies in India to alter their working capital management practices in the aftermath of global recession.

## Database and Research Methodology

### Objective of the Study

The main aim of this research paper is to comparatively analyse the changes in working capital management practices of companies in India during slowdown period relative to the pre-slowdown period.

Sources of Data Collection

In order to achieve the aforementioned objective of the study, the secondary data with respect to financial performance have been collected from Prowess database of CMIE (Centre for Monitoring Indian Economy), Ace Equity database of Accord Fintech Private Ltd., Capitaline Plus database maintained by Capital Market Publishers India Ltd. and Annual Reports of the sampled companies.

Period of the Study

The study covers a time frame of five years beginning from financial year 2005-06 to financial year 2009-10 bifurcated into pre-slowdown period and slowdown period, embracing a time period of FY 2005-06 to FY 2007-08 and FY 2008-09 to FY 2009-10 respectively. The pre-slowdown period encompasses the years in which the Indian economy achieved double digit GDP growth rate and the slowdown period comprises the years witnessing slowdown in the GDP growth rate.

### Sample Selection

The present study employs a combination of two probability sampling techniques i.e. Proportionate Stratified Random Sampling and Systematic Sampling in order to select a representative random sample from the sampling frame. Firstly, the sampling frame has been bifurcated into various strata. The various industrial groups in manufacturing sector (recession hit) evidencing a decline in the growth rate during the FY 2008-09 as compared to FY 2007-08 have been assigned as different strata. In addition to it, the IT sector itself has been chosen as a stratum, being hit by global recession. Secondly, only the BSE or NSE listed companies have been included in the selected strata. Thirdly, the relative sales growth of listed companies identified under various strata has been calculated by computing the relative sales growth ratio. The relative sales growth has been computed as the ratio of firm's average sales growth in the slowdown period to the average sales growth in the immediately preceding pre-slowdown period. Fourthly, the listed companies under the respective strata have been sorted in the ascending order of their relative sales growth. Further, in order to select a sample of 250 companies, the number of companies to be selected from each stratum has been decided on the basis of proportionate stratified sampling. Finally, the number of companies to be selected from each stratum has been chosen by employing systematic random sampling.

### Research Design

The present study uses ratio analysis to analyze the changes in corporate working capital management practices during the slowdown period as compared to the pre-slowdown period. Various working capital ratios/variables used for analysis are liquidity ratios (current ratio, quick ratio and absolute liquidity ratio), turnover ratios (inventory turnover ratio, debtors turnover ratio, creditors turnover ratio and working capital turnover ratio), operating cycle and operating expenses coverage ratio. In an attempt to examine whether there is any significant difference in the working capital management practices of companies in slowdown period (2008-09 to 2009-10) from that of pre-slowdown period

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(2005-06 to 2007-08), paired samples t-test has been employed. A brief outline of working capital ratios used in the analysis has been given in the following section.

**Variables Employed and Hypotheses Framed**

**Liquidity Ratios**

The first set of ratios employed to analyze the changes manifested in working capital management practices is liquidity ratios. The liquidity ratios measure the ability of a firm to meet its short-term obligations and can help in gaining insights into its ability to remain solvent in the event of adversities (VanHorne, 2002 p.369). The ratios used to analyze the short-term liquidity position of a firm are current ratio, quick ratio and absolute liquidity ratio. The current ratio indicates as to how much rupees of current assets are available against each rupee of current liabilities. Quick ratio measures the adequacy of quick assets (current assets excluding inventory and prepaid expenses) to satisfy the current liabilities. Another version of quick ratio is to take quick liabilities as denominator instead of current liabilities. However, the former version has been used so as to keep the same denominator as that of current and absolute liquidity ratios. The absolute liquidity ratio represents the most rigorous and conservative test of firm's liquidity position by including only the absolute liquid current assets i.e. cash and cash equivalents. The liquidity ratios do not indicate the quality of current assets. Since current assets may consist of slow-paying debtors or slow-moving inventory, these ratios are used in conjunction with turnover ratios. The following formulae have been employed to compute the liquidity ratios:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{Quick Ratio} = \frac{\text{Current Assets - (Inventory + Prepaid Expenses}}{\text{Current Liabilities}}$$

$$\text{Cash Ratio} = \frac{\text{Cash and Bank Balance + Marketable Securities}}{\text{Current Liabilities}}$$

In the present context, the liquidity ratios have been employed to analyze the significant differences, if any, in the liquidity position of the companies during slowdown period as compared to pre-slowdown period. The hypothesis to be tested here is as follows:

**$H_0$1:** There is no statistically significant difference between the liquidity ratios of companies during pre-slowdown period and slowdown period.

Turnover Ratios

The second set of ratios employed to analyze the changes in working capital management practices is turnover ratios. The turnover ratios are employed to evaluate the efficiency with which the firm manages and utilizes its current assets and current liabilities. Four turnover ratios namely, inventory turnover ratio, debtors turnover ratio, creditors turnover ratio and working capital turnover ratio have been used for analysis. The inventory turnover ratio indicates how quickly the inventory gets converted into sales. A high inventory turnover ratio is recommended as it indicates that inventory is swiftly turning over into sales whereas low inventory turnover ratio implies excessive inventory level than warranted by production and sales activities and amounts to unnecessary tied-up funds, increased costs and reduced profits (Pandey, 2013 p.590). Debtors turnover ratio measures the number of times receivables turn over in a year and a high debtors turnover is indicative of efficient management of credit and rapid collection. Creditors turnover ratio indicates the extent to which trade creditors (including bills payable) are willing to wait for payment and act as a short-term source of finance known as suppliers' credit (Khan and Jain, 2013 p.6.9). While computing debtors and creditors turnover ratios, credit sales and credit purchases should have been taken as a numerator instead of net sales and net purchases respectively. Since no bifurcation was available in the corporate databases with respect to credit and cash sales/purchases, net sales and net purchases have been taken as a numerator to compute debtors and creditors turnover ratios respectively. Lastly, working capital turnover ratio indicates as to how efficiently a firm is using its current assets (gross working capital) to generate sales. A high working capital turnover implies that more rupees sales are generated in comparison to the short-term resources used to fund the sales. The following formulae have been employed to compute the turnover ratios:

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods sold}}{\text{Average Inventory}}$$

$$\text{Debtors Turnover Ratio} = \frac{\text{Net Sales}}{\text{Average Receivable}}$$

$$\text{Creditors Turnover Ratio} = \frac{\text{Net Purchases}}{\text{Average Payable}}$$

$$\text{Working Capital Turnover Ratio} = \frac{\text{Net Sales}}{\text{Gross Working Capital}}$$

In the present context, the turnover ratios have been employed to analyze as to how the inventory, receivables, creditors and working capital turned over during the slowdown period as compared to the pre-slowdown period. The hypothesis to be tested here is as follows:

**$H_0$2:** There is no statistically significant difference between the turnover ratios of the companies during pre-slowdown period and slowdown period.

Operating Cycle

Operating cycle (net) implies the continuing flow from cash to suppliers to inventory to accounts receivables and back to cash. It is also referred to as Cash Conversion Cycle which is defined as the time interval between cash disbursements to creditors for purchase of material and cash collection from debtors against sale of finished goods. Brigham (1985) p.735 explains, “The firm's goal should be to shorten the cash conversion cycle so as to improve its profits because the longer the cash conversion cycle, the greater the need for external financing, and such financing has a cost to the firm". In the aftermath of economic downturn, companies are likely to alter their credit practices, inventory management policies and can even make more use of suppliers' credit. As a result, the gross as well as net operating cycles of the companies are probable to change. The following formulae have been employed to compute the operating cycle:

Gross Operating Cycle =
Raw Material Cycle + Work - in -Progress Cycle + Finished Goods Cycle + Debtors Collection Period

Net Operating Cycle =
Gross Operating Cycle - Payable Deferral Period

In the present context, the operating cycle has been computed and compared during the slowdown period and pre-slowdown period by employing paired samples t-test. The hypothesis to be tested here is as follows:

**$H_0$3:** There is no statistically significant difference between the operating cycle of the companies during pre-slowdown period and slowdown period.

**Operating Expenses Coverage Ratio**

This ratio estimates the number of days that a company can pay for its business operations with cash and cash equivalents. A high ratio indicates that the company can pay for its operations for a longer time period with its cash and cash equivalents and vice-versa. The following formula has been employed to compute the ratio:

Operating Expenses Coverage Ratio

$$= \frac{\text{Cash and Bank Balance + Marketable Securities}}{\text{Operating Expenses /365}}$$

In the present context, operating expenses coverage ratio has been computed and compared during the slowdown period and pre-slowdown period by employing paired samples t-test. The hypothesis to be tested here is as follows:

**$H_0$4:** There is no statistically significant difference between the operating expenses coverage ratio of the companies during pre-slowdown period and slowdown period.

**Empirical Results and Discussion**

To test the above mentioned hypotheses within the framework of working capital management practices, paired samples t-test has been applied and results of the same have been presented through the following tables.

**Table 1**

**Comparative Analysis of Liquidity Ratios of Selected Companies in India during Pre-Slowdown Period and Slowdown Period**

| S.No. | Liquidity Ratios | Paired Samples *t*-test | | |
|---|---|---|---|---|
| | | Mean | *t-value* | Sig. (2-tailed) |
| 1. | **Current Ratio (times)** | | | |
| | Pre-Slowdown Period | 2.36 | -2.24 | 0.028 |
| | Slowdown Period | 1.86 | | |
| 2. | **Quick Ratio (times)** | | | |
| | Pre-Slowdown Period | 1.67 | -1.92 | 0.077 |
| | Slowdown Period | 1.23 | | |
| 3. | **Absolute Liquidity Ratio (times)** | | | |
| | Pre-Slowdown Period | 0.69 | -2.80 | 0.055 |
| | Slowdown Period | 0.49 | | |

Source: Authors' Computations

The first set of ratios to analyze the changes in working capital management practices has been liquidity ratios. Table 1 reveals that the current ratio decreased from an average 2.36 times in the pre-slowdown period to 1.86 times during the slowdown period. It highlights the fact that the companies could not maintain the rule of thumb of 2:1 current assets to current liabilities during the slowdown period. However, the change in the ratio during two periods has been found to be significant at 5% level of significance. Quick ratio declined from 1.67 times during the pre-slowdown period to 1.23 times during slowdown period and the decline is statistically significant at 10% level of significance. It highlights that although the quick ratio fell down during slowdown period from its pre-slowdown level, yet it was adequately more than the rule of thumb. Further, absolute liquidity ratio also declined from 0.69 times during the pre-slowdown period to 0.49 times during slowdown period, which is significant at 10% level of significance. It demonstrates that against rupee one of current liability, 0.49 rupee was available in cash and cash equivalents during the slowdown period. It is worth mentioning here that companies approximately maintained the rule of thumb of 0.5:1 absolute liquid assets to current liabilities during the slowdown period.

**Table 2**

**Comparative Analysis of Turnover Ratios of Selected Companies in India during Pre-Slowdown Period and Slowdown Period**

| S.No. | Turnover Ratios | Paired Samples *t*-test | | |
|---|---|---|---|---|
| | | Mean | *t-value* | Sig. (2-tailed) |
| 1. | **Inventory Turnover Ratio (times)** | | | |
| | Pre-Slowdown Period | 12.8 | -2.99 | 0.032 |
| | Slowdown Period | 7.4 | | |
| 2. | **Debtors Turnover Ratio (times)** | | | |
| | Pre-Slowdown Period | 8.8 | -3.05 | 0.01 |
| | Slowdown Period | 6.2 | | |
| 3. | **Creditors Turnover Ratio (times)** | | | |
| | Pre-Slowdown Period | 8.75 | -0.973 | 0.332 |
| | Slowdown Period | 7.32 | | |
| 4. | **Working Capital Turnover Ratio (times)** | | | |
| | Pre-Slowdown Period | 3.35 | -2.46 | 0.039 |
| | Slowdown Period | 0.93 | | |

Source: Authors' Computations

The second set of ratios employed to analyze the changes in working capital management practices has been turnover ratios. Table 2 shows that inventory turnover ratio declined from an average 12.8 times during the pre-slowdown period to 7.4 times during the slowdown period which is significant at 5% level of significance. It highlights the fact that finished goods turned over slowly into sales during the slowdown period relative to pre-slowdown period. Debtors turnover ratio also declined from 8.8 times during the pre-slowdown period to 6.2 times during slowdown period, which is significant at 1% level of significance. The lower debtors turnover ratio during the slowdown period highlights that the debtors took more time in payment of their outstanding dues. Creditors turnover ratio decreased from 8.75 times to 7.32 times during the pre-slowdown period and slowdown period respectively. The decline in ratio shows that companies used more suppliers' credit during the slowdown period as compared to pre-slowdown period. However, the decline has not been found to be statistically significant at even 10% level of significance. Working capital turnover ratio declined considerably from 3.35 times to 0.93 times during the pre-slowdown period and slowdown period respectively, which is significant at 5% level of significance. It reveals that lesser sales were generated against the working capital employed during slowdown period.

**Table 3**

**Comparative Analysis of Operating Cycle and Expense Coverage of Selected Companies in India during Pre-Slowdown Period and Slowdown Period**

| S.No. | Operating Cycle and Expense Coverage | Paired Samples *t*-test | | |
|---|---|---|---|---|
| | | Mean | *t-value* | Sig. (2-tailed) |
| 1. | **Gross Operating Cycle (days)** | | | |
| | Pre-Slowdown Period | 128 | 3.659 | 0.008 |
| | Slowdown Period | 167 | | |
| 2. | **Net Operating Cycle (days)** | | | |
| | Pre-Slowdown Period | 87 | 3.051 | .0420 |
| | Slowdown Period | 116 | | |
| 3. | **Operating Expenses Coverage Ratio (days)** | | | |
| | Pre-Slowdown Period | 157 | -4.870 | 0.002 |
| | Slowdown Period | 109 | | |

Source: Authors' Computations

Table 3 shows that gross operating cycle increased from 128 days during the pre-slowdown period to 167 days during slowdown period, which is statistically significant at 1% level of significance. As far as cash conversion cycle (net operating cycle) is concerned, it increased from 87 days to 116 days during the pre-slowdown period and slowdown period respectively. The increase in the operating cycle during slowdown period is also significant at 5% level of significance. It reveals that the sampled companies had to finance their net operating cycle by another one month through external financing during slowdown period. The difference between gross and net operating cycles equals payables deferral period. Their comparison during two periods highlights that payables deferral period increased during the slowdown period. Lamberg and Valming (2009) state that in the event of liquidity crisis, the firms may defer their payments to creditors but the same may prove detrimental to companies and can result worse credit terms in future. The table further reveals that operating expenses coverage ratio declined from 157 days to 109 days during pre-slowdown period and slowdown period respectively. The change is highly significant at 1% level of significance. It shows that the number of days that a company can pay for its business operations with cash and cash equivalents declined during the slowdown period.

## Conclusion and Implications

Present research work has been carried out to compare the working capital management practices of companies during pre-slowdown and slowdown period. The comparative analysis of working capital management practices reveals that the short-term liquidity position of companies during slowdown period had not been as good as pre-slowdown period. Secondly, turnover ratios declined significantly during the slowdown period pointing towards slow-moving inventory as well as debtors, increase in suppliers' credit, lesser sales generation against working capital and elongated gross as well as net operating cycles. In the foregoing backdrop, companies need to modify their credit policies during economic downturn. Firstly, selective credit administration becomes indispensable on their part. Companies have to keep a close eye on the creditworthiness of their customers. The customers that have been irregular in making payments even during good economic times can pose more threat during an economic downturn. Therefore, stringent credit conditions should be put in place for such customers. Undoubtedly, lenient credit policies can fetch more sales to the companies but during economic downturn risk of bad debts upsurges. In addition to it, companies have to undertake rigorous collection of receivables in the times of economic downturn. Further, while at no point of time, firm can escape payment to its suppliers; however, trade credit can be optimally utilised by making payment to the suppliers on due date during difficult economic times. For the reason that economic downturn is unanticipated, companies need to be financially prudent, cautious and farsighted in the very years of economic boom so as to become capable enough to face uncertainties posed by economic recession and can easily navigate through the same.

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# A Study on Employees' Perception of Quality of Work Life in Commercial Banks

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**Abstract**

The concept of quality of work life (QWL) has been introduced in the early 1970s. With the increase in competition, advancements in technology, emergence of service sector in almost all parts of the world, the QWL has become important for the organisations. The quality of work life provides a number of ways to dilute the stress levels, increase the job satisfaction, minimise absenteeism, and improve the productivity. The present study has been conducted to find out the perception of bank employees regarding various dimensions of quality of work life. The study has also made comparative analysis of the quality of work life of male and female bank employees; and further, compared quality of work life of married and single employees working in commercial banks. A sample of employees working in public sector banks and private sector banks in Haryana has been taken for the study. Stratified Random Sampling was used for the study. The study found that the banks employees are highly satisfied with the 'image of organisation in society' dimension of quality of work life. While, the lowest extent of agreement has been found on the dimension 'work and total life space' followed by the dimension 'work load'. The findings of the study suggested that the employees working in commercial banks are facing problems regarding work and total life space. So, the banking organisations should adopt the strategies to improve the QWL in terms of Work and Total Life Space by appointing more staff in their banks so that the work burden will be reduced and all the employees get more time for their families and fulfilment of their social obligations.

**Keywords:** Quality of Work Life, Commercial Banks, Employees.

## Introduction

Everybody performs some economic activity to fulfil various needs of life. Workplace is a place where all kinds of economic activities are performed by a person. He/she spends a considerable amount of time at the work place and interacts with various people there. Thus, the work place environment has an important bearing on the professional and personal life of a person. With the increase in competition, advancements in technology, emergence of services sector in almost all parts of the world, good employees have become a source of distinctive advantage for any organisation. In order to ensure there better management, organisations are making efforts aimed at changing the entire organisational climate by humanizing work. The term 'Quality of Work Life' was introduced by Louis Davis in 1970s. Since then, it has evolved with the changing business environment and employee aspirations.

Quality of Work Life is a process by which an organization responds to employee's needs for developing mechanisms to allow them to share fully in making the decision that design their lives at work (Walton, R.E., 1973). It was found from the definition that for improving the QWL, the organisations should concern their employees while taking the important decisions for their organisations. All these motivate the employees and improve the quality of work life of the organisation.

Quality of work life is the quality of the content of relationship between human beings and their work (Beinum, 1974). In this definition, the QWL refers to the quality of life of employees in their workplace. Work environment is an important consideration for the employees as well as for the organisations.

Quality of work life as a set of methods, such as autonomous work groups, job enrichment, and high involvement aimed at boosting the satisfaction and productivity of workers (D. Fever, 1989). As per this definition the QWL is associated with job satisfaction and productivity. With the help of good interpersonal relations, participation of employees and opportunity to use and develop human capacity the employees feel more satisfied with their job and the QWL will improve.

Quality of work life is defined as the feelings that employees have towards their jobs, colleagues and organizations that ignite a chain leading to the organization's growth and profitability (Heskett, Sasser and Schlensinger, 1997).

The recent definition (Serey, 2006) is quite conclusive and best meet the contemporary work environment. It is related to meaningful and satisfying work. It includes:

- An opportunity to exercise one's talents and capacities to face challenges and situations that requires independent initiative and self direction;
- An activity thought to be worthwhile by the individuals involved;
- An activity in which one understands the role the individuals plays in the achievement of some overall goals ; and
- A sense of taking pride in what one is doing and in doing it well.

Thus, it can conclude that "Quality of Work Life" is defined as the subset of psycho social and physical conditions of job environment which become essential for the organisation's growth, wealth, and development and as well as for employees, it increases the productivity, morale, job satisfaction, working performance, harmonious relations of

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employees, and reduced the absenteeism, turnover rate, and stress of the people working in the organisation. Thus, Quality of Work life makes the human power of great value for the organisation".

**Review of Literature**

Numerous studies have been done to examine the effects of physical work environment and organisational climate on worker's job satisfaction, performance and health.

Geetha V. et.al (2010) have examined the significant differences between male and female employees regarding quality of work life. The result showed that there was significant difference between male and female employees with respect to uncertainty and attrition, fatigue and tensions and overall QWL. Uncertainty & Attrition, and Fatigue & Tension are more with female workers than the male workers.

Tabassum et.al (2011) have studied a comparative learning of the existing QWL between male employees and female employees of the private commercial banks in Bangladesh. The study revealed that there was a significant difference between male and female employees regarding the dimensions of QWL viz. adequate and fair compensation, flexible work schedule and job assignments, attention to job design, and employee relations. The results indicated that the male respondents have a better QWL in private commercial banks of Bangladesh.

Bharathi et. al (2011) have explored the quality of work life of college teachers. The study has also examined the difference in the level of perception of QWL between the respondents (Male and Female). The results indicated that there is significant difference between the male and female respondents with regard to overall quality of work life in teaching environment.

**Need of the Study**

Since the early 1990s, banking sector has undergone sweeping reforms. Now it is highly competitive, market oriented sector wherein technology is fast changing. In the present scenario, profitability, customer service, and productivity are dominant concerns in any banking organisation and its people are the vital means of improving overall productivity and for achieving the other goals of the organisation. Every action or decision is being taken in the light of productivity, efficiency, and profitability which results in increase in stress level of employees negatively affecting the quality of work life. So, the banking organizations should make the strategies to improve the quality of work life. Thus, the growth of employees and organisation are correlated. If employees are satisfied with their working conditions, the productivity, efficiency, and customer service will be automatically improved. The quality of work life offers a variety of ways to reduce stress levels, increase job satisfaction, reduce absenteeism and increase productivity.

**Objectives of the Study**

The QWL is an important for the smooth running and success of the banking organisation. QWL helps the employees in various ways i.e. maintaining work life balance, adequate salary, good interpersonal relations, safe and healthy physical environment, training and development programs, image of organisation in society etc. Thus, there is need to develop a research on QWL of bank employees. Thirteen dimensions have been taken for the study. The present study was designed with a view to obtaining the following objectives-

1. To find out the perception of bank employees regarding various dimensions of Quality of Work Life.
2. To compare the quality of work life between male and female employees in commercial banks.
3. To compare the quality of work life between married and single employees working in commercial banks.

**Research Methodology**

The present study has been confined to fulltime employees of public sector and private sector banks in Haryana. Stratified Random Sample of two major categories of employees viz. Officers and Clerical Staff has been taken from public sector banks and only Officers from private sector banks have been taken because many new private sector banks do not have clerical staff.

Primary data required for the study has been collected with help of a structured questionnaire. The measurement instrument used for this purpose is based on the scale developed by Saklani in 2003. It is based on thirteen clusters of sixty four items intended to measure quality of work life. To mark differences in degree, each statement was followed by a five-point disagreement-agreement continuum indicating 'very poor' to 'very good' status of quality of work life in organization. Reliability analysis was checked at both the level of entire QWL scale and at the level of each dimension of the scale. The values of Cronbach Alpha ($\alpha$) co-efficient derived from the test were found to be sufficiently high at overall level ($\alpha$=.902). The existence of positive and high value of the coefficient is reflective of the capability of items included in the instrument to elicit consistent and reliable responses as described in table 1:

**Table 1- Reliability Indices for the Research Instrument**

| Sr. No. | Dimension | Alpha ($\alpha$) |
|---|---|---|
| 1. | Adequate and Fair Compensation | .794 |
| 2. | Fringe benefits and Welfare Measures | .657 |
| 3. | Job Security | .637 |
| 4. | Safe and healthy Physical Environment | .646 |
| 5. | Work load | .697 |
| 6. | Opportunity to Use and Develop Human Capacity | .747 |
| 7. | Opportunity for Continued Growth | .833 |
| 8. | Human Relations and Social Aspect of work Life | .754 |
| 9. | Participation in Decision Making | .808 |
| 10. | Reward and Penalty System | .724 |
| 11. | Equity, Justice, and Grievance Handling | .852 |
| 12. | Work and Total Life Space | .594 |
| 13. | Image of organization on Society | .838 |
| | **Overall Quality of Work Life** | **.902** |

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## ANALYSIS AND INTERPRETATION

### Sample

The survey was conducted in four commercial banks. A stratified random sampling procedure was employed. 550 questionnaires were distributed to the respondents. However, 510 survey questionnaires were returned, and analysed. Thus, the present study has a sample of 510 employees working in public sector banks and private sector banks in Haryana. As prescribed in table 2, about 71.6 percent of respondents are working in public sector banks i.e. State Bank of India and Central Bank of India and 28.4 percent respondents are working with private banks i.e. ICICI Bank and Yes Bank.

It can be seen in the Table, the total sample comprises of 364 (71.4%) male and 146 (28.6%) female respondents. About 72.2 percent respondents are married and 27.8 percent respondents are single.

**Table 2: Sample Profile of The Respondents**

| VARIABLES | FREQUENCY | PERCENTAGE | CUMULATIVE PERCENTAGE |
|---|---|---|---|
| **1.Ownership pattern wise composition of respondents** | | | |
| **a)Public Sector Banks** | 365 | 71.6 | **71.6** |
| **b) Private Sector Banks** | 145 | 28.4 | **100.0** |
| **Total** | **510** | **100.0** | |
| **2.Gender wise composition of respondents** | | | |
| **a)Male** | 364 | 71.4 | **71.4** |
| **b)Female** | 146 | 28.6 | **100.0** |
| **Total** | **510** | **100.0** | |
| **4.Marital status wise profile of respondents** | | | |
| **a)Married** | 368 | 72.2 | **72.2** |
| **b)Single** | 142 | 27.8 | **100.0** |
| **Total** | **510** | **100.0** | |

**Source:** Primary Data

**Table 3: Dimension wise Aggregate of Means Score, Grand Mean Score, and Standard Deviation of Quality of Work Life Perceived by Bank Employees**

| **S. NO.** | **Dimensions** | **Aggregate of means score** | **Grand Mean score** |
|---|---|---|---|
| 1. | Adequate and Fair Compensation (5statements) | 15.71 (4.04) | 3.142 |
| 2. | Fringe Benefits and Welfare Measures (3statements) | 10.08 (3.02) | 3.360 |
| 3. | Job Security (3statements) | 10.30 (2.43) | 3.343 |
| 4. | Safe and Healthy Physical Environment (3statements) | 11.16 (2.31) | 3.720 |
| 5. | Work Load(5statements) | 14.36 (3.71) | 2.872 |
| 6. | Opportunity to Use and Develop Human Capacity (8statements) | 26.74 (4.98) | 3.342 |
| 7. | Opportunity for Continued Growth (5statements) | 18.58 (3.81) | 3.716 |
| 8. | Human Relations and Social Aspect of Work Life (8statements) | 26.59 (4.81) | 3.323 |
| 9. | Participation in Decision making (5statements) | 16.11 (3.82) | 3.222 |
| 10. | Reward and Penalty System (4statements) | 15.10 (2.99) | 3.775 |
| 11. | Equity, Justice, and Grievance Handling (4statements) | 14.47 (3.51) | 3.617 |
| 12. | Work and Total Life Space (3statements) | 8.03 (2.53) | 2.676 |
| 13. | Image of Organization in Society (6statements) | 23.58 (4.34) | 3.930 |

Source: Primary data

Figures in parentheses indicate the Standard Deviation

The analysis was conducted using the statistical software program SPSS. As prescribed in table 3, the aggregate of means score, standard deviation, and grand mean score have been obtained on various dimensions of 'quality of work life'. A glance at table 3, exhibits that the highest mean score of 3.930 is accorded on dimension 'Image of Organisation in Society'. It means that employees do agree with this dimension. It reveals that the banking organisations are highly concerned about various aspects of organisational image viz. the customers complaints, issues relating to protection of environment, promotion of education, sports, culture, justice, equality etc. in society and their practices are not biased in the favour of a particular community based on religion, sex, caste etc. While the lowest mean score have been found on the dimension 'Work and Total Life Space' (2.676), followed by the dimension 'Work Load' (2.872). It means that the employees feel that they have no enough time for their personal, family, and social obligations. Employees also face crisis situation due to work load and long working hours. The table 3 depicts that employees agree with the dimensions viz. safe and healthy physical environment, opportunity for continued growth, reward and penalty system, equity, justice and grievance handling, and image of organisation in society. The mean scores of the remaining dimensions are found in the range of 2.676 to 3.360. It depicts that the employees neither agree nor disagree with these dimensions while working in banking organisations.

**Gender Wise Comparison of the Respondents**

In order to find out the significant difference between male and female employees regarding thirteen dimensions of QWL viz. 'Adequate and Fair Compensation', 'Fringe benefits and Welfare Measures', 'Job Security', 'Safe and Healthy Physical Environment', 'Work Load', 'Opportunity to Use and Develop Human Capacity', 'Opportunity for Continued Growth', 'Human Relations and Social Aspect of Work Life', 'Participation in Decision making', 'Reward and Penalty System', 'Equity, Justice and Grievance Handling', 'Work and Total Life Space', and 'Image of Organisation in the Society' the grand mean scores reported by male and female respondents were compared by using T-Test.

Table 4 reveals the Aggregate of Means Score, Grand Mean Score, Standard Deviation, and T-value between male and female groups of respondents for each of the dimensions of quality of work life. In case of both male and female employee groups the highest mean score is found on the dimension 'Image of Organisation in Society'. In case of both the groups of employees, the lowest mean score is observed on the same dimension viz. 'Work and Total Life Space'. For the male and female group of respondents the mean scores of 2.680 and 2.663 have been accorded respectively on the dimension 'Work and Total Life Space'.

T-Test has been conducted to find out whether there exists any significant difference in the mean values of each of the dimensions of quality of work life between male and female employees working in banking sector. The result of t-test with df=1/508 reveal that the difference in mean score is significant at 5 percent level for the dimension 'Human Relation and Social Aspect of Work Life'. In this dimension, the mean score obtained by female group is higher than that of male group. Thus, female employees are more satisfied with the environment available in their banks where the people are always ready to work in collective manner, socio-emotional support, union-management relations based on trust and spirit of accommodation in their banks.

**Table 4**

**Gender-wise Comparison of Dimensions of Quality of Work Life in Commercial Banks**

| Sr. No. | Dimensions | Male | | Female | | t-Value | p-value |
|---|---|---|---|---|---|---|---|
| | | Aggregate of means score | Grand mean score | Aggregate of means score | Grand mean score | | |
| 1 | Adequate and Fair Compensation (5statements) | 15.73 (4.215) | 3.146 | 15.68 (3.576) | 3.136 | .126 | .900 |
| 2 | Fringe Benefits and Welfare Measures (3statements) | 10.04 (3.179) | 3.346 | 10.18 (2.596) | 3.393 | -.471 | .638 |
| 3 | Job Security (3statements) | 10.24 (2.494) | 3.413 | 10.46 (2.272) | 3.486 | -.911 | .363 |
| 4 | Safe and Healthy Physical Environment (3statements) | 11.16 (2.340) | 3.720 | 11.18 (2.258) | 3.726 | -.095 | .925 |
| 5 | Work Load(5statements) | 14.26 (3.721) | 2.852 | 14.61 (3.700) | 2.922 | -.950 | .342 |
| 6 | Opportunity to Use and Develop Human Capacity (8statements) | 26.70 (5.137) | 3.337 | 26.84 (4.575) | 3.355 | -.302 | .763 |
| 7 | Opportunity for Continued Growth (5statements) | 18.42 (3.885) | 3.684 | 18.97 (3.599) | 3.794 | -1.489 | .137 |
| 8 | Human Relations and Social Aspect of Work Life (8statements) | 26.28 (4.865) | 3.285 | 27.34 (4.595) | 3.417 | -2.262** | .024 |
| 9 | Participation in Decision making (5statements) | 16.02 (3.813) | 3.204 | 16.34 (3.826) | 3.268 | -.854 | .394 |
| 10 | Reward and Penalty System (4statements) | 15.07 (3.097) | 3.767 | 15.16 (2.727) | 3.790 | -.307 | .759 |
| 11 | Equity, Justice, and Grievance Handling (4statements) | 14.41 (3.607) | 3.602 | 14.62 (3.264) | 3.655 | -.594 | .553 |
| 12 | Work and Total Life Space (3statements) | 8.04 (2.563) | 2.680 | 7.99 (2.441) | 2.663 | .222 | .825 |
| 13 | Image of Organization in Society (6statements) | 23.54 (4.459) | 3.923 | 23.69 (4.049) | 3.948 | -.360 | .719 |

Source: Primary Data
Figures in parentheses indicate the Standard Deviation.
**significant at 5% level of significance

However, no significant differences are found between mean scores of two groups in case of other twelve dimensions. The t-value for each of the remaining dimensions of quality of work life has not been found significant at 5 percent level as given in table-4. It indicates that gender wise there is no significant difference between the mean values of each of these dimensions. Thus, across the two groups of respondents i.e. male and female almost same level of agreement is observed regarding these dimensions of quality of work life.

**Table 5: Marital Status-wise Comparison of Dimensions of Quality of Work Life in Commercial Banks**

| Sr. No. | Dimensions | Married | | Single | | t-Value | p-value |
|---|---|---|---|---|---|---|---|
| | | Aggregate of means score | Grand mean score | Aggregate of means score | Grand mean score | | |
| 1 | Adequate and Fair Compensation (5statements) | 15.71 (4.091) | 3.142 | 15.68 (3.903) | 3.136 | .078 | .938 |
| 2 | Fringe Benefits and Welfare Measures (3statements) | 10.15 (3.157) | 3.383 | 9.87 (2.643) | 3.290 | .934 | .351 |
| 3 | Job Security (3statements) | 10.35 (2.510) | 3.450 | 10.17 (2.230) | 3.390 | .759 | .448 |
| 4 | Safe and Healthy Physical Environment (3statements) | 11.21 (2.291) | 3.736 | 11.04 (2.381) | 3.680 | .750 | ..453 |
| 5 | Work Load(5statements) | 14.20 (3.716) | 2.840 | 14.77 (3.699) | 2.954 | -1.537 | .125 |
| 6 | Opportunity to Use and Develop Human Capacity (8statements) | 27.11 (4.825) | 3.388 | 25.82 (5.229) | 3.227 | 2.634* | .009 |
| 7 | Opportunity for Continued Growth (5statements) | 18.73 (3.778) | 3.746 | 18.21 (3.889) | 3.642 | 1.378 | .169 |
| 8 | Human Relations and Social Aspect of Work Life (8statements) | 26.77 (4.689) | 3.346 | 26.09 (5.106) | 3.261 | 1.431 | .153 |
| 9 | Participation in Decision making (5statements) | 16.17 (3.896) | 3.234 | 15.94 (3.617) | 3.188 | .588 | .557 |
| 10 | Reward and Penalty System (4statements) | 15.29 (3.004) | 3.822 | 14.64 (2.923) | 3.660 | 2.191** | .029 |
| 11 | Equity, Justice, and Grievance Handling (4statements) | 14.58 (3.581) | 3.645 | 14.16 (3.291) | 3.540 | 1.211 | .227 |
| 12 | Work and Total Life Space (3statements) | 7.88 (2.555) | 2.626 | 8.41 (2.423) | 2.803 | -2.149** | .032 |
| 13 | Image of Organization in Society (6statements) | 24.11 (4.222) | 4.018 | 22.20 (4.376) | 3.700 | 4.528* | .000 |

Source: Primary Data
Figures in parentheses indicate the Standard Deviation.
*significant at 1%level of significance, **significant at 5%level of significance

Quality of work life has become important for both the employees and organization. Organisations make use of innovative methods to keep the employees happy and satisfied so that office becomes a better place to work and also productivity improves. In banks, the common tendency in work culture is to stay back in the office after working hours. However, this affects the various aspects of life of an employee. The quality of work life experienced by employees in commercial banks may be different depending upon the fact that they are married or single because marital status relates to various personal/family responsibilities as well. Table 5 exhibits that the dimension 'image of organization in society' has obtained the highest mean scores of 4.018 and 3.700 for married and single group respectively. Whereas, the lowest mean scores (2.626 and 2.803) have been obtained by the dimension 'work and total life space' in case of both married and single group of respondents.

As described in table 5, the result of t-test with df=1/508 reveal that the difference in the mean score is significant at 5 percent level for the four dimensions i.e. opportunity to use and develop human capacity, reward and penalty system, work and total life space, and image of organisation in society. The mean scores obtained by the married group are higher than that of the single group on the dimensions viz. opportunity to use and develop human capacity, reward and penalty system, and image of organisation in society. Thus, only on the dimension 'work and total life space' the respondents of single group have higher extent of agreement than that of the married group.

There is no significant difference found between mean scores of two groups in case of other nine dimensions viz. adequate and fair compensation, fringe benefits and welfare measures, job security, safe and healthy physical environment, work load, opportunity for continued growth, human relations and social aspect of work life, participation in decision making, and equity, justice & grievance handling. The t-value for each of these dimensions of quality of work life has not been found significant at 5 percent level as given in table 5. It indicates that marital status wise there is no significant difference between mean values of each of these dimensions. Thus, across the two groups of respondents i.e. married and single there is almost same level of agreement regarding these dimensions of quality of work life.

**Conclusion and Suggestions**

It can be concluded from the study that the bank employees have obtained least extent of agreement on the 'work and total life space' dimension of quality of work life followed by the dimension 'work load'. It means that the employees do not have enough time for pursuing hobbies, attending family and social obligations. These problems are faced by bank employees due to long working hours, time restrict targets etc. Cumulatively, all these pressures negatively affect on the QWL of employees. So, the banking organisations have to adopt the strategies to reduce the work load of employees by upgrading their employees with the help of advanced technology and recruiting more employees for maintaining work load reasonable in their banks. These will solve the problems concerning 'work and total life space' also. The result also depicted that so far as the male and female respondents are concerned, they have no significant difference regarding all the dimensions of QWL except one i.e. 'Human Relations and Social Aspect of Work Life' in case of which female employees have higher level of agreement. The results are contradicted to earlier studies (Geetha V et.al 2010, Tabassum et.al 2011). The results also indicated that there is significant difference among the married and single employees regarding the four dimensions viz. opportunity to use and develop human capacity, reward and penalty system, work and total life space, and image of organisation in society. Except work and total life space, married employees exhibit better QWL on remaining three dimensions. The banking organisations should adopt the policies to improve the QWL in terms of work and total life space by ensuring more time for their families and fulfilment of their social obligations. The better QWL of the employees will enable to work more efficiently and effectively towards the attainment of the objectives of their organisations.

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# An Analytical study of Adjustable Rate Mortgages(ARMs)

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## Abstract

A variable-rate mortgage, adjustable-rate mortgage (ARM), or tracker mortgage is a mortgage loan with the interest rate on the note periodically adjusted based on an index which reflects the cost to the lender of borrowing on the credit markets. The loan may be offered at the lender's standard variable rate/base rate. There may be a direct and legally defined link to the underlying index, but where the lender offers no specific link to the underlying market or index the rate can be changed at the lender's discretion. The term "variable-rate mortgage" is most common outside the United States, whilst in the United States, "adjustable-rate mortgage" is most common, and implies a mortgage regulated by the Federal government, with caps on charges. In many countries, adjustable rate mortgages are the norm, and in such places, may simply be referred to as mortgages.

**Keywords:-** Adjusted Rate Mortgage, Development, LIBOR, Mortgage, Inflation

## Introduction to ARM

A study of the fixed rate products globally reveals that there is predominant prevalence of Fixed Rate Mortgage (FRM) contracts in USA & France. On the other hand, there has been preference for Floating Rate Mortgages or Adjustable Rate Mortgage (ARM) in Ireland, Spain, Korea, UK & Australia. Hybrid products are generally more popular in other parts of Europe and in countries like Canada which predominantly offer variable-rate mortgages, often with an initial short to medium term fixed rate. FRMs are very popular in many western markets due to a host of factors like less volatile/low interest rate scenario, vibrant securitization market, presence of Govt. Sponsored Entities (GSEs) to buy out FRMs and existence of Long Term (LT) liquid Interest Rate Swap (IRS) market.

Over 90% of Housing Loans (HLs) in Asia (excluding Japan) are floating rate loans. This is mainly due to the prevalence of an underdeveloped primary and secondary market for securitized products, the absence of a liquid medium/LT IRS market in most of the countries and non-existence of GSEs to buy out the fixed rate loan products. Lending to the housing sector tends to be dominated by banks in most Asian countries.

**Table 1: Fixed vs. Variable Mortgage Products-Cross Country Experience**

| | Variable rate | Short term (2-5 yrs) fixed | Medium term (6-10 yrs) fixed | Long term (beyond 10 yrs) fixed |
|---|---|---|---|---|
| Australia | 92% | 8% | - | - |
| Canada | 35% | - | 55% | 10% |
| Denmark | - | 17% | 40% | 43% |
| France | 33% | - | - | 67% |
| Germany | 16% | 17% | 38% | 29% |
| Ireland | 91% | - | 9% | - |
| Japan | 38% | 20% | 20% | 22% |
| Korea | 92% | - | 6% | 2% |
| Netherlands | - | 15% | 66% | 19% |
| Spain | 91% | 8% | - | 1% |
| Switzerland | 2% | - | 98% | - |
| UK | 47% | 53% | - | - |
| US | 5% | - | - | 95% |

Source: B.Sanders Anthony (October 2011), "Housing Finance Reform: Continuation of the 30-year Fixed-Rate Mortgage", Testimony before the U.S. Senate Banking Committee.

During the period 1977-2000, fixed rate loan products were popular. However, post 2000, these products gave way to floating rate loans mainly due to falling interest rates in the early 2000s and significantly higher interest rate on fixed rate loan products in many cases. Considering that most bank liabilities (mainly deposits) are short to medium term in nature, the sanction of LT fixed rate loan products tends to create an asset liability mismatch on the balance sheets of banks. The options to manage this mismatch could be through raising LT resources via bonds, securitization of assets, etc. NHB has been making efforts to give a fillip to LT fixed rate HLs. It has launched a scheme for refinancing banks which offer LT fixed rate HLs to low income households (income up to `15,000 per month) extending to a period of 15 years.

Among the most common indices are the rates on 1-year constant-maturity Treasury (CMT) securities, the Cost of Funds Index (COFI), and the London Interbank Offered Rate (LIBOR). A few lenders use their own cost of funds as an index, rather than using other indices. This is done to ensure a steady margin for the lender, whose own cost of funding will usually be related to the index. Consequently, payments made by the borrower may change over time with the changing interest rate (alternatively, the term of the loan may change). This is distinct from the graduated payment mortgage, which offers changing payment amounts but a fixed interest rate. Other forms of mortgage loan include the interest-only mortgage, the fixed-rate mortgage, the negative amortization mortgage, and the balloon payment mortgage.

## Review of Literature

In a frictionless setting, mortgage lenders would incur no particular costs in bearing these risks privately (Modigliani and Miller 1958). However, more recent corporate finance research argues that bearing undiversified risks is costly in

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practice due to the presence of financing frictions (e.g., Froot, Scharfstein, and Stein 1993; Froot and Stein 1998). The exposure of the financial system to interest rate and prepayment risk has recently attracted increased attention from policy makers and academics (e.g. Begenau, Piazzesi, and Schneider 2013), given the current low interest rate environment.

Securitization is an important tool used by lenders to pool and diversify the prepayment and interest rate risk associated with FRMs. The resulting MBS are held by a wide range of international and domestic investors, including mutual funds, pension funds and banks. Gabaix, Krishnamurthy, and Vigneron (2007) provide evidence that bearing non diversifiable prepayment risk is costly. These authors show that the marginal MBS investor requires a return premium to hold securities backed by FRMs, and argue that this premium reacts nonsystematic rather than systematic risk from the perspective of the economy as a whole. In related work, Levin and Davidson (2005) emphasize the importance of non diversifiable refinancing and turnover uncertainty for MBS pricing. This trenching allows these risks to be allocated to investors best suited to manage and bear them. The prevalence of FRMs also has important broader consequences for household risk management, monetary policy transmission, and financial stability. FRMs insulate borrowers against movements in real interest rates, and reduce short-run volatility in disposable income, but leave the borrower unhedged against ination shocks (Campbell and Cocco 2003). From a macroeconomic perspective, ARMs generate stronger and more immediate transmission of monetary policy via mortgage interest rates (Miles 2004; Calza, Monacelli, and Stracca 2013). From a systemic risk perspective, Campbell and Cocco (2011) argue that FRMs and ARMs default under different circumstances (FRM defaults increase when interest rates decline, while the opposite is true for ARMs), and that FRMs are more likely to lead to \default waves" whereas ARM defaults are more idiosyncratic.

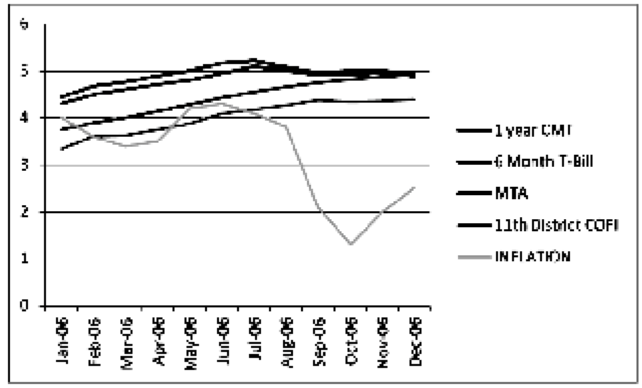
**Objective of the study**
1. To study the concept of ARMs
2. To find out any correlation among ARMs
3. To find out degree of correlation among ARMs

**Hypothesis**
H0: ARMs under study have correlation
H1: ARMs under study have no correlation

**Research Methodology**
**Data Collection**
This study is based on secondary data. The required data have been collected from various sources i.e. World Investment Reports, Asian Development Bank's Reports, United Nations, Asian Development Outlook, Country Reports on Economic Policy and Trade Practice-Bureau of Economic and Business Affairs, U.S. Department of State and from websites of World Bank, IMF, WTO, etc.

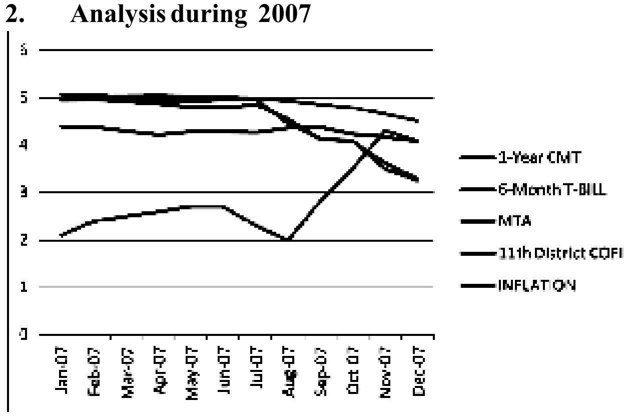
**Time period of the study**
It is a time series data and the relevant data have been collected for the period 2006 to 2012.

**Analysis of Correlation through graphical method-**
**1. Analysis during 2006**



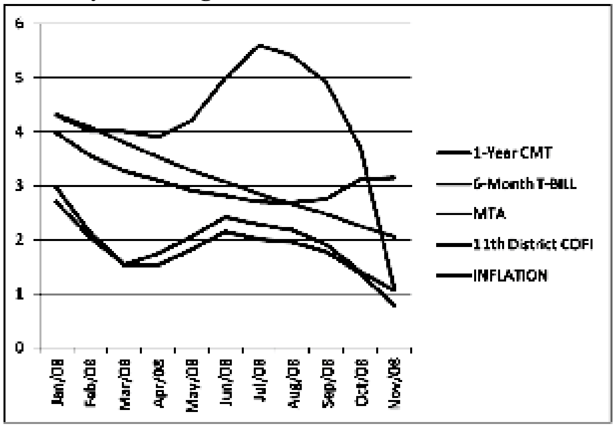

In January, 2006; 1 year CMT was at 4.45% along with 6 month treasury bill at 4.3%, MTA at 3.75%, 11th District COFI at 3.34% with inflation at 4%. In next month all the indexes started to increase but inflation started to decrease. This trend continued until July,2006 and inflation declined to 3.4 in March,06 & increased in July,06 before reaching a low of 2% in next month.

**2. Analysis during 2007**



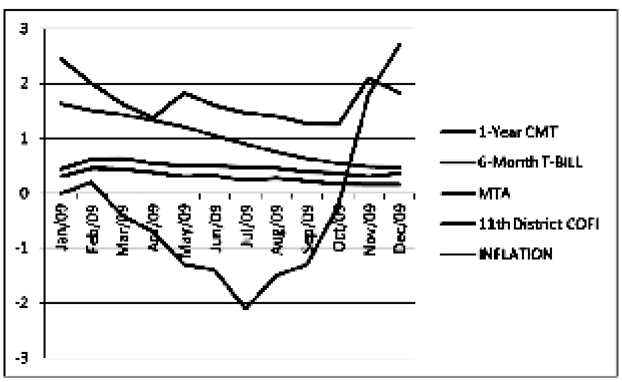

January, 2007 started with a low inflation & ARMs under the study ranged from 4.39% to 5.06% and they ended with a spread of 3.26% to 4.1%. COFI showed least fluctuations, while inflation showed double digit growth. Lenders who opted for 1 year CMT were happy to have a low rate below 3% as their EMI was reduced and they had to pay low interest rate for the borrowed amount. The borrowers whose lending was associated with MTA were feeling misguided even though it was not the fault of MTA team because interest rates could not be predicted accurately and chances of swings always prevail.

### 3. Analysis during 2008



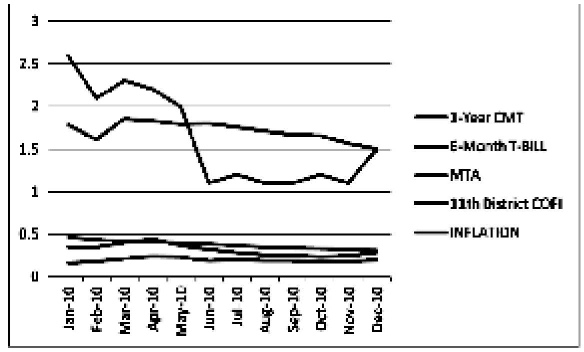

Inflation touch a new low of 1% in December, 2008 & 1 year CMT declined below .50% further providing happiness to lenders and boosting the morale and extra savings by reducing the interest burden, which has large impact on large loans. In 2009, inflation touch zero level and remain negative through 2009. MTA and 11th District COFI were prevailing above 1%. There was depression like scenario in many countries and USA, being the largest economy of the world, having trade relations with most of the countries; cannot remained unaffected including financial market rates. Downturn of economies of the world reflected in lower ARMs and lower price levels due to weak demand from domestic and overseas markets.

### 4. Analysis during 2009



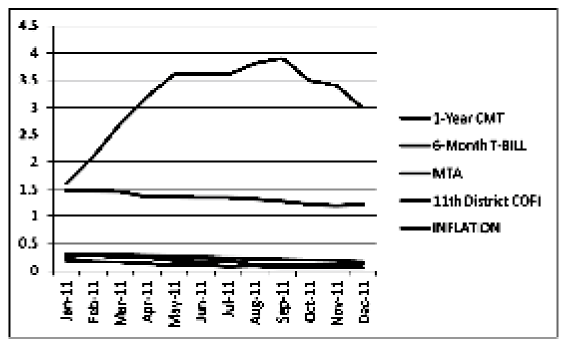

Inflation went negative in 2009, indicating loosing consumer confidence with weak demand worrying industrialist. MTA start declining and continue to decline in whole year remaining below 11th district COFI, which decline up to April,09 and then increase for a month only followed by declining up to October. 1 year CMT remains between 0 to 1% displaying minimum fluctuations. Same trend can be seen in 6-month T-Bill. All the ARMs ended the year in reduced levels whereas inflation crossed 2% from below zero level.

### 5. Analysis during 2010



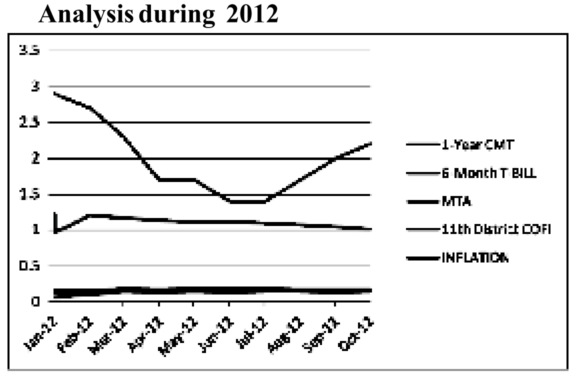

Adjustable rate mortgages touched a new low of below 0.5% level. Only 11th district COFI remains in the range of 1.5% to 2%. This was a golden period for genuin borrowers who wants to lend money while having capacity and certaintly of paying the installments. Corporates can make deal in this type of era for long term loans and invest them in desired projects to have long term gains considering risk and return break even. Business is called the risk game and one can have low interest burden on arrangement made during this period. This will lead to enhanced profitability.

### 6. Analysis during 2011




Prospective borrowers who missed chance to borrow in 2010 get another year of low interest rates of ARMs in 2011. There were opporunities for MNCs who could hedge their foreign exchange risk to take advantage of low lending rates in American market. Inflation started to rise and gained more than 2%. touching aporroximately 4%.

### 1. Analysis during 2012



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Different ARMs under study rates were trailing below 3%; thus offering low interest inflow and low interest outflow. It is unfavourable to depositors as they were getting low return or they had to bear the market risk. At the same time it was favourable to borrowers to invest the funds in profitable projects minimising the interest rate burden at least for some time. 11th district COFI, MTA and 1-year CMT remained in the range of 1.5% to 2%.

**Analysis of Correlation through statistical method-**

**Correlation among different variables**

| | 1-Year CMT | 6-Month T-BILL | MTA | 11th District COFI | INFLATION |
|---|---|---|---|---|---|
| 1-Year CMT | 1 | | | | |
| 6-Month T - BILL | 0.998919 | 1 | | | |
| MTA | 0.95294 | 0.954979 | 1 | | |
| 11th District COFI | 0.941726 | 0.943986 | 0.980471 | 1 | |
| INFLATION | 0.371782 | 0.38025 | 0.371349 | 0.371736 | 1 |

It is clear from the above table that 1-year CMT is closely correlated with 6-month T-Bill but least related with inflation. It is more related with MTA as compare to 11th district COFI. 6 Month T-Bill have 0.95 correlations with MTA and 0.94 with 11th district COFI. Inflation had least correlation with 6-Month T-Bill which creates doubt about government's strength of controlling inflation through monetary measures. MTA and 11th District COFI are closely correlated, so lenders of them were on the same waves of interest fluctuations. Inflation had below 0.40 correlations with adjustable rate mortgages indicating that ARMs are affected by other factors more than the inflation.

**Conclusion**

Adjustable rates transfer part of the interest rate risk from the lender to the borrower. They can be used where unpredictable interest rates make fixed rate loans difficult to obtain. The borrower get benefits if the interest rate falls but loses if the interest rate increases. The borrower benefits from reduced margins to the underlying cost of borrowing compared to fixed or capped rate mortgages.

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# Growth Potential and Opportunities of Micro, Small and Medium Enterprises of India: A Critical Analysis in Eastern India

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****Dr. Mrutyujnay Dash**

**Abstract**

After independence a rapid growth was observed in the establishment of Micro, Small and Medium Enterprises (MSMEs) based on its certain strengths like low capital requirement, high employability and capacity of utilization of local resources. This sector accounts for 76% of the total investment in the economy and an even larger share in employment and output. MSMEs, in particular, have a vital role in expanding production in a regionally balanced manner and generating widely dispersed off - farm employment. The present study is intended to analyze the pattern of growth of MSMEs over the last ten years in terms of establishment of new units, employment generation potential new employment generation etc and to analyze its role in the growth of Indian economy. Multiple regression technique was also used in this study to form the regression equation as econometric model. Besides, an inter-state analysis has been made to assess the performance of MSMEs in the Eastern India States during 2003-2013 taking into consideration the vital parameters like number of enterprises, number of employment created, market value of fixed assets and the gross output.

**Keywords:** MSMEs, Employment, GDP growth, Export growth

## Introduction

Micro, Small and Medium Enterprises (MSMEs) play a very important role in any economy due to its advantageous features like low capital requirement, high employability and greater capacity of utilization of local resources. This also plays a very significant role in the economic and social development of the country. Moreover, this may be compared to a nursery entrepreneurship where there is enough scope of innovative work and creativity. In the developed economies i.e., in European Union and USA small industries account for 99% and 80% respectively. It is an impressive feature that after independence the small scale industries have grown up rapidly in India and presently the share of SSI is as high as 97% (Geete, V, 2012). An enterprise is known as a micro-manufacturing enterprise if its investment in plant and machinery and equipment (excluding land and building) is upto Rs.. 25 lakh. In case of a micro-service enterprise, the upper ceiling of investment is Rs.. 10 lakhs. If the investment amount of any manufacturing industry is more than Rs.. 25 lakh to Rs.. 5 Crores it is designated as a small unit and in case of service sector this range of investment is more than 10 lakh to Rs. 2 Crores. Similarly, investment of more than Rs. 5 crores to Rs.10 crores in manufacturing enterprises comes under Medium scale manufacturing enterprise whether investment of more than Rs.2 crores to Rs. 5 Crores in a service enterprise comes under Medium scale service enterprise. Let us have a look into the types of MSMEs of India as per the findings of the Fourth All India Census of MSME and EM-II filed during 2007-08 to 2011-12.

Table 1 reveals that in the year 2011-12 MSMEs were mostly dominated by micro enterprises (85.88%) followed by small enterprises (12.10%) and medium enterprises (1.04%). Highest per cent of micro enterprise (89.52%), small enterprise (12.26%) and medium enterprises (1.04%) were observed in the year Rs. 2007-08, 2010-11 and 2011-12 respectively.

**Table 1: Types of MSMEs in India during 2007-08 to 2011-12**

| Year | Number of MSMEs in India during 2007-08 to 2011-12 | | | |
|---|---|---|---|---|
| | Micro | Small | Medium | Total |
| 2007-08 | 156051 | 17777 | 491 | 174319 |
| 2008-09 | 171031 | 18757 | 690 | 193077 |
| 2009-10 | 186126 | 23999 | 1412 | 213894 |
| 2010-11 | 204064 | 29101 | 1260 | 237263 |
| 2011-12 | 242606 | 34192 | 2939 | 282496 |

Source: The States/Union Territories Commissionerates/Directorates of Industries; Annual Report (2012-13) of Ministry of Micro, Small and Medium Enterprises, Government of India

The highest growth of micro enterprise (18.89%), small enterprise (21.26%) and medium enterprise (104.64%) were observed n the yeaRs. 2011-12, 2010-11 and 2009-10 respectively. However, MSMEs in total has shown the highest growth (19.06%) in the year 2011-12.

These industries have immense potentiality to solve the problem of unemployment and also earn foreign exchange by enhancing export. It was felt necessary to examine the pattern of growth over the last ten years in terms of establishment of new units, new employment generation and increase of export. The performance of the several trainings conducted by MSMEs in several training centers and training stations were also felt important to be examined. The study paid proper attention to examine the growth of the MSME sector as this is the back bone of the economy as the sector produces an extensive range of intermediate as well as final products like micro-processor, mini computers, electronic components, electro medical devices etc. This also signifies the role of MSME in the manufacturing and the supply chain

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of the economy.

**Review of Literature**

Shastri et al (2011) opined that, India should concentrate on credit flow of human resource development, appropriate technology and fund for modernization in order to successfully implement its promotional activities. The basic policy support of the SSI sector had its roots in Industrial Policy Resolution (1977) emphasized on reservation of items. The reservation of economically and technically feasible products to be manufactured by small scale industry began with a list of 47 items which was gradually extended upto 812 items presently.

Purakayastha et al (2010) stated that for setting up a SME entrepreneuRs.hip skills are required. This effectively growing sector can also be improved by adequate finance from the Government. They also opined that SMEs should not concentrate only on the rural areas but should also expand in the urban areas and meet the demand of various customers preferably using modern technology and equipments.

K.R.Singh et al (2010) preached that cost reduction, quality improvement and delivery in time are the emerging major challenges ahead of SSI. The major areas of investments are market research, welfare of employee and research and development. The factors like use of information technology, training of employees and research and development have significant positive relationship with performance.

Shivaram, D. (2009) discussed regarding the expectations of the micro, small and medium enterprises (MSME) sector from the political party or government that was formed following the elections in India in 2009. He stresses upon the need for the government to simplify tax structure. He added that the interest of employees should be protected by the labor laws. He also commented that finance should be made available to MSME at the rate lower than prime lending rates (PLR).

The Survey reports on the growth of exports from micro, small and medium enterprise (MSME) by the Confederation of Indian Industry (CII) in 2010 revealed that MSME exports was observed to be growing despite rising cost of raw materials, difficult global market and international competition.

**Objectives of the Study**

- To examine the pattern of growth of MSMEs over the last ten years in terms of establishment of new units, new employment generation and increase of export.
- To examine the growth of the MSME sector vis a vis the growth of Indian Economy.
- To analyze the performance of the several trainings conducted by MSMEs in several training centers and training stations.
- To make a comparative analysis on the important performance parameters of MSMEs in Eastern India.

**Methodology**

In order to fulfill the above mentioned objectives a study has been conducted on MSMEs all-over India. Secondary data were collected from several sources like Annual Report (2009-10), Annual Report (2011-12) of Ministry of Micro, Small and Medium Enterprises, Government of India, Website of RBI and related articles from national and international journals. Data of last ten years were collected to conduct cross-sectional analysis. Statistical tools like frequency distribution in terms of per cent, correlation analysis and regression technique were used as and when needed with the help of SPSS 17.0. Data analysis was shown mainly in a tabular and descriptive way. Multiple regression technique was used taking production in current prices in crores (P) as dependent variable. The independent variables were number of working units (in Lakh), employment (in lakh), fixed investment (in Crores) and export (in Crores). The regression model summary and coefficients were analyzed. After that the regression equation was formed. The viability of the regression equation was explained in the light of R square value. The correlation values within the independent variables were also examined by one tailed Pearson Correlation Test.

**Result & Analysis**

Table-2: Year-wise Accomplishment of Employment and Production in Micro, Small and Medium Enterprises

| Year | Number (in million) | Employment (in million) | Production (Thousand Crores) |
|---|---|---|---|
| 2000-01 | 10.11 | 23.87 | 261.297 |
| 2001-02 | 10.52 | 24.93 | 282.270 |
| 2002-03 | 10.95 | 26.02 | 314.850 |
| 2003-04 | 11.36 | 27.14 | 364.547 |
| 2004-05 | 11.86 | 28.26 | 429.796 |
| 2005-06 | 12.34 | 29.49 | 497.842 |
| 2006-07 | 26.10 | 59.46 | 709.398 |
| 2007-08 | 27.28 | 62.63 | 790.759 |
| 2008-09 | 28.52 | 65.94 | 880.805 |
| 2009-10 | 29.81 | 69.38 | 982.919 |
| 2010-11 | 31.15 | 73.22 | 1095.758 |
| 2011-12 | 44.77 | 101.26 | 1834.332 |

Source: Annual Report (2009-10), Annual Report (2011-12) and Annual Report (2012-13) of Ministry of Micro, Small and Medium Enterprises, Government of India.

**Table 2** shows the year-wise accomplishment of employment and production in micro, small and medium enterprises of the last decade. The highest growth in the number of MSMEs, creation of employment was observed in the year 2006-07 whereas in the year 2011-12 a remarkable growth (67.40%) in production was observed followed by the year 2006-07 (42.98%). So, the data clearly indicates that the highest growth in production was not a consequence of the highest growth in number of MSMEs and number of employment. Moreover, it is also observed that in the last decade the growth rate of production was highly fluctuating ranging from 8.03% in the initial year to 67.40% in the final year although a steady growth rate was observed in this sector.

**Table-3:** Year-wise Performance of MSMEs in Terms of Working unit, Employment, Production, Export in Comparison with GDP Growth and Industrial Growth

| Sl. No. | Year | No (in Lakhs) | Employment (in lakhs) | Export (Rs..in Crores) | GDP Growth (%) | Industrial Growth |
|---|---|---|---|---|---|---|
| 1. | 1990-91 | 67.87 | 158.34 | 9664 | 5.7 | 7.0 |
| 2. | 1991-92 | 70.63 | 165.99 | 13883 | 5.7 | 7.0 |
| 3. | 1992-93 | 73.51 | 174.84 | 17784 | 5.7 | 7.0 |
| 4. | 1993-94 | 76.49 | 182.64 | 25307 | 5.7 | 7.0 |
| 5. | 1994-95 | 79.60 | 191.40 | 29068 | 5.7 | 7.0 |
| 7. | 1995-96 | 82.84 | 197.93 | 36470 | 5.7 | 7.0 |
| 8. | 1996-97 | 86.21 | 205.86 | 39248 | 5.7 | 7.0 |
| 9. | 1997-98 | 89.71 | 213.16 | 44442 | 5.2 | 4.1 |
| 10. | 1998-99 | 93.36 | 220.55 | 48979 | 5.2 | 4.1 |
| 11. | 1999-2000 | 97.15 | 229.10 | 54200 | 5.2 | 4.1 |
| 12. | 2000-01 | 101.10 | 238.73 | 69797 | 5.2 | 4.1 |
| 13. | 2001-02 | 105.21 | 249.33 | 71244 | 5.2 | 4.1 |
| 14 | 2002-03 | 109.49 | 260.21 | 86013 | 8.7 | 4.1 |
| 15. | 2003-04 | 113.95 | 271.42 | 97644 | 8.7 | 8.3 |
| 16. | 2004-05 | 118.59 | 282.57 | 124417 | 8.7 | 8.3 |
| 17 | 2005-06 | 123.42 | 294.91 | 150242 | 8.7 | 8.3 |
| 18 | 2006-07 | 261.01 | 594.61 | 182538 | 8.7 | 8.3 |
| 19 | 2007-08 | 272.79 | 626.34 | 202017 | 9.4 | 8.6 |
| 20. | 2008-09 | 285.16 | 659.35 | NA | 8.3 | 3.2 |
| 21. | 2009-10 | 298.08 | 659.38 | NA | 8.97 | 10.5 |
| 22. | 2010-11 | 311.52 | 732.17 | NA | 7.67 | 7.8 |

Source: MSME annual report taken from the website http://www.rbi.org.in/scripts/bs_speechesview.aspx?id=379

**Table 3** delineates the performance of MSMEs in Terms of Working unit, Employment, Production, Export in Comparison with GDP Growth and Industrial Growth in a time cross section during 1990-91 to 2011-12. This is observed that over the years that the number of total working MSMEs, employment, production and export increased steadily although year-wise fluctuation was noticed in all the cases. A huge growth (111.57%) was observed in the number of total working MSMEs in the year 2006-07 followed by 43.72% in the year 2011-12. In the same year the highest growth in employment (101.98) was observed followed by 38.30% in 2011-12. The growth of production was observed to be highest in the year 2011-12 (67.40%) followed by the year 2006-07 (42.98%). The growth of export was observed to be the highest (27.42%) in the year 2004-05 followed by 2006-07 (21.50%). The industrial growth was observed to be highest in the year 2009-10 (10.5%) followed by 8.6% in the year 2007-08 whereas the GDP growth was observed to be highest in the year 2007-08 (9.4%) followed by 2009-10 (8.97%).

**Table 4:** Performance of MSMEs during 11th Five Year Plan (2007-2012)

| Sl. No. | Year | Revenue Earned (Rs.in lakhs) | | Recurring Expenditure (Rs.in lakhs) | | No of Jobs Completed | | No. of MSMEs Benefited | |
|---|---|---|---|---|---|---|---|---|---|
| | | TCs | TSs | TCs | TSs | TCs | TSs | TCs | TSs |
| 1. | 2007-08 | 326.03 | 106.81 | 430.40 | 111.84 | 12214 | 14261 | 2428 | 4662 |
| 2. | 2008-09 | 348.11 | 122.91 | 568.32 | 175.21 | 14013 | 21916 | 2608 | 5844 |
| 3. | 2009-10 | 387.96 | 137.04 | 638.37 | 209.92 | 14497 | 22471 | 6805 | 8163 |
| 4. | 2010-11 | 389.77 | 175.12 | 701.76 | 229.10 | 13981 | 26488 | 6304 | 8497 |
| 5. | 2011-12 | 268.26 | 137.30 | 523.98 | 132.43 | 12664 | 16771 | 4869 | 5444 |

Source: Annual Report (2012-13) of Ministry of Micro, Small and Medium Enterprises, Government of India.

Table 4 reveals the performance of MSMEs during 11th five year plan during 2007-2012. In the plan this was mentioned that the private sector, including farming, micro, small and medium enterprises (MSMEs) and the corporate sector, has a critical role to play in achieving the objective of faster and more inclusive growth. This sector accounts for 76% of the total investment in the economy and an even larger share in employment and output. MSMEs, in particular, have a vital role in expanding production in a regionally balanced manner and generating widely dispersed off - farm employment. Our policies must aim at creating an environment in which entrepreneuRs.hip can flourish at all levels, not just at the top. The table analyzed the four economic parameters. - revenue earned, recurring expenditure, number of jobs completed and number of MSMEs benefited. It is observed from the above table that apart from the year 2011-12 the growth of revenue earning and the recurring expenditure was steady for both the training centres and training stations during 2007-2012. The highest growth in revenue earning (11.45%) was observed in the year 2009-10 followed by 2008-09 (6.77%). The growth of revenue earning through the training centers (TCs) was observed to be highest (27.79%) in the year 2010-11 followed by 2008-09 (15.07%). The growth in recurring expenditure was observed to be maximum in the year 2008-09. For the training centres this was 32.04% and for the training stations (TSs) this was 56.66%. Number of jobs completed was observed to be at its peak in the year 2008-09 for both the training centeres (14.73%) and training stations (53.68%). As a consequence of that it is also observed that the number of beneficiary MSMEs was maximum in the nest year i.e., 2009-10. For the training centres this growth was 160.93% and 39.68% for the training stations.

**Table 5:** State-wise Distribution of Registered MSMEs of Eastern India during 2007-2012

| Sl. No. | Name of the State | Number of MSMEs | | | | |
|---|---|---|---|---|---|---|
| | | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
| 1. | Arunachal | 63 | 107 | 111 | 50 | 36 |
| 2. | Assam | 1811 | 1711 | 1678 | 1506 | 1218 |
| 3. | Bihar | 2855 | 3134 | 4010 | 4302 | 4108 |
| 4. | Chhattisgarh | 1335 | 1291 | 1089 | 1206 | 1741 |
| 5. | Jharkhand | 940 | 1051 | 669 | 690 | 939 |
| 6. | Manipur | 54 | 139 | 81 | 122 | 120 |
| 7. | Meghalaya | 403 | 397 | 1040 | 748 | 573 |
| 8. | Mizoram | 226 | 478 | 500 | 198 | 131 |
| 9. | Nagaland | 687 | 2498 | 1445 | 141 | 0 |
| 10. | Odisha | 1515 | 1588 | 1758 | 1657 | 2155 |
| 11. | Sikkim | 14 | 71 | 18 | 40 | 30 |
| 12. | Tripura | 156 | 236 | 218 | 218 | 205 |
| 13. | West Bengal | 17618 | 13428 | 11685 | 10109 | 13470 |
| Eastern India | | 27614 | 26022 | 24191 | 20937 | 24690 |
| All India | | 174319 | 193077 | 213894 | 237263 | 282496 |

Source: Annual Report (2012-13) of Ministry of Micro, Small and Medium Enterprises, Government of India

**Table 5** delineates the State-wise Distribution of Registered MSMEs of Eastern India during 2007-2012. In an overview, it was observed that in 2011-12 West Bengal (54.54%) dominated in terms of per cent of MSMEs in eastern India followed by Bihar (16.64%) and Odisha (8.73%). Very low per cent of MSMEs was observed in Nagaland and Sikkim in this respect. The highest growth of MSMEs in Eastern India (17.92%) as well as allover India (19.06%) were observed in the year 2011-12. Only the state Odisha showed a steady growth rate during this time span of 2007 to 2012. The growth in number of registered MSMEs were observed to be highest in the states namely Nagaland (263.61%), Meghalaya(161.96%), Sikkim (122.22%) and Chhattisgarh (44.36%) respectively in the consecutive years of 2008-09, 2009-10, 2010-11 and 2011-12.

**Table 6:** State-wise Distribution of Employment Status in Registered and Unregistered MSMEs of Eastern India during 2012-2013

| Sl. No. | Name of the State | Number of Enterprises (lakhs) | | | Employment (lakhs) | | |
|---|---|---|---|---|---|---|---|
| | | Registered | Unregistered | Total | Registered | Unregistered | Total |
| 1. | Arunachal Pradesh | 0.00 | 0.41 | 0.41 | 0.05 | 1.14 | 1.19 |
| 2. | Assam | 0.20 | 6.42 | 6.62 | 2.11 | 12.14 | 14.25 |
| 3. | Bihar | 0.50 | 14.20 | 14.70 | 1.48 | 26.78 | 28.26 |
| 4. | Chhattisgarh | 0.23 | 4.97 | 5.20 | 0.75 | 8.77 | 9.52 |
| 5. | Jharkhand | 0.18 | 6.57 | 6.75 | 0.75 | 12.16 | 12.91 |
| 6. | Manipur | 0.04 | 0.87 | 0.91 | 0.20 | 2.16 | 2.36 |
| 7. | Meghalaya | 0.03 | 0.85 | 0.88 | 0.13 | 1.79 | 1.92 |
| 8. | Mizoram | 0.04 | 0.25 | 0.29 | 0.26 | 0.55 | 0.81 |
| 9. | Nagaland | 0.01 | 0.38 | 0.39 | 0.16 | 1.55 | 1.71 |
| 10. | Odisha | 0.20 | 15.53 | 15.73 | 1.73 | 31.51 | 33.24 |
| 11. | Sikkim | 0.00 | 0.17 | 0.17 | 0.01 | 0.78 | 0.79 |
| 12. | Tripura | 0.01 | 0.97 | 0.98 | 0.23 | 1.52 | 1.75 |
| 13. | West Bengal | 0.43 | 34.21 | 34.64 | 3.60 | 82.18 | 85.78 |

Source: Calculated from Annual Report (2012-13) of Ministry of Micro, Small and Medium Enterprises, Government of India.

**Table 6** shows the State-wise distribution of employment status in registered and unregistered MSMEs of eastern India during 2012-2013. It was observed that out of total 1300 lakh MSMEs in Eastern India 3.17% were registered and the rest 96.83% unregistered. It is also observed that the registered MSMEs were sharing 9.11% of employment whereas the unregistered MSMEs were sharing the rest 90.89% of the total employment of eastern India. The table also expressed that the highest per cent (4.40% approx) of registered MSMEs belong to the states Chhattisgarh and Manipur whereas the states like Odisha, Tripura and West Bengal were having the highest per cent (above 98%) of unregistered MSMEs. Regarding employment Mizoram provided the highest per cent of employment among the registered MSMEs whereas Sikkim, Arunachal Pradesh and West Bengal provided above 95% of their respective total employment.

**Table 7:** State-wise Distribution of Important Performance Parameters of MSMEs in Eastern India during 2012-2013

| Sl. No. | Name of the State | Enterprises (lakhs) | Employment (lakhs) | Market value of Fixed Assets (Rs. in Crores) | Gross Output (Rs. in Crores) |
|---|---|---|---|---|---|
| 1. | Arunachal Pradesh | 0.25 | 0.88 | 937.48 | 1101.73 |
| 2. | Assam | 2.34 | 6.58 | 6941.15 | 13403.27 |
| 3. | Bihar | 7.98 | 17.45 | 8405.45 | 16709.30 |
| 4. | Chhattisgarh | 3.01 | 5.43 | 3303.41 | 8437.34 |
| 5. | Jharkhand | 4.43 | 8.99 | 5020.72 | 10040.29 |
| 6. | Manipur | 0.49 | 1.58 | 646.03 | 1094.70 |
| 7. | Meghalaya | 0.50 | 1.17 | 468.55 | 1150.80 |
| 8. | Mizoram | 0.13 | 0.56 | 403.14 | 677.21 |
| 9. | Nagaland | 0.18 | 1.17 | 1273.67 | 2845.03 |
| 10. | Odisha | 9.97 | 23.67 | 12284.89 | 29075.42 |
| 11. | Sikkim | 0.07 | 0.57 | 72.16 | 189.76 |
| 12. | Tripura | 0.28 | 0.76 | 661.73 | 1177.84 |
| 13. | West Bengal | 21.23 | 58.53 | 39433.22 | 78880.05 |
| Eastern India | | 50.86 | 127.34 | 79851.6 | 164782.7 |
| All India | | 214.38 | 501.93 | 689954.86 | 1077212.86 |

Source: Annual Report (2012-13) of Ministry of Micro, Small and Medium Enterprises, Government of India.

**Table 7** reveals the state-wise distribution of important performance parameters of MSMEs of Eastern India during 2012-2013. The number of enterprises, number of employment created, market value of fixed assets and the gross output were selected as the parameters. It was observed that West Bengal (41.74%) was the highest in Eastern India regarding the number of enterprises flowed by Odisha (19.60%) and as a consequence of that West Bengal was at the peak (45.96%) followed by Odisha (18.59%) in terms of employment also. The same picture was observed in terms of market value of fixed assets and the gross output where the per cent of West Bengal and Odisha were 44.38 and 15.38 followed by 47.87 and 17.64 respectively.

Treating Production at current prices (P) as a dependent variable and number of working units (W), employment (E), fixed investment (F) and export (Exp) as independent variables the study found the multiple regression equation as follows:

$$\mathbf{P = 51623.474 - 484.506\,W + 0.616\,F + 2.609\,Exp}$$

Model Summary of Regression Analysis

| Model | R | R square | Adjusted R square | Standard error of the estimate |
|---|---|---|---|---|
| 1 | 1.00[a] | 0.999 | 0.999 | 6920.34481 |

a. Predictors: (constant), Export, Fixed expenditure, Working units

b. Dependent Variable: Production The value of $R^2$ explains that as much as 99.9% of the total variation observed in the dependent variable 'production' is explained by the above regression equation

Coefficients[3]

| Model | Unstandardized Coefficients | | Standardized Coefficients (Beta) | t | Significance |
|---|---|---|---|---|---|
| | B | Std. error | | | |
| 1. (constant) | 51623.474 | 30759.788 | | 1.678 | 0.192 |
| Working unit | -484.506 | 750.187 | -0.185 | -0.646 | 0.564 |
| Fixed expenditure | 0.616 | 0.312 | 0.553 | 1.973 | 0.143 |
| Export | 2.609 | 0.126 | 0.660 | 20.677 | 0.000 |

**a. Dependent Variable: Production**

**Conclusion**

In the year 2011-12 highest growth was observed in terms of number of MSMEs which was dominated by the medium enterprises followed by small enterprises and micro-enterprises. This is indicative of the fact that if this growth pattern continues, a number of medium enterprises would be converted into large scale industries and give a great impetus on the industrial growth vis-a-vis GDP growth of the nation as is rightly evident from in the remarkable growth in production in the year 2011-12. Employment generations as well as increase in the number of working units were also observed satisfactory during the said period. However, the industrial growth of the year is observed not to be matching with the GDP growth to a great extent and the same is also the case with export growth rate, industrial growth and GDP growth. The growth in the number of beneficiaries were observed to be more in case of training centers compared to the training stations. The state-wise growth of MSMEs was not found healthy and it is skewed in nature. In this regard, more attention should be given to provide opportunities for establishments of MSMEs in the states other than West Bengal and Odisha especially in the north eastern states like Nagaland, Sikkim etc. The study reveals the existence of huge number of unregistered MSMEs which is an alarming factor. In addition to that, it is also observed that the registered MSMEs have generated more employment opportunities.

**Suggestions & Recommendations**

Hence, it is suggested that focus should be given to enhance the number of more registered MSMEs. Although West Bengal and Odisha are observed to be in a good shape in terms of number of enterprise, employment creation, market value of fixed assets and the gross output, the conditions of other 11 states are not too healthy. This calls for immediate action to be taken to identify the existing loopholes in the overall functioning of the sick MSMEs on hand and to create conditions congenial enough to set up MSMEs in the backward regions too on the other.

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# A Study on the CSR Initiatives taken by IOCL and BPCL in India

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**Abstract**

The Indian oil and gas industry being one of the six core industries has significant forward linkages with Indian economy. The current acceleration in the growth momentum would translate into many times growth in India's energy needs. The growing demand for crude oil and gas in the country and policy initiative of Government of India has been moving towards increased exploration and production activities. The potential for energy generation depends upon the country's natural resource endowments and the technology to harness them. The companies in both public as well as private sector, like- IOCL, BPCL, ONGC, Cairn, HPCL, Shell etc. have been earning millions from this business, like- Indian oil Corporation Ltd. (IOCL) had sales turnover of Rs. 4, 57, 553 crore and profits of Rs. 7, 019 crore during 2013-14, similarly, having market share of 23.48%, the Bharat Petroleum Corporation Ltd. (BPCL) earned Rs.4, 060, 88 crore in FY 2013-14. As this sector is directly linked with the exploitation of natural resources and tremendous harm to the nature and human beings in terms of pollution, so it becomes necessary to explore whether these companies are giving anything in return to the society. Today, Corporate Social Responsibility (CSR) reiterates the notion that development is not the exclusive responsibility of the government. The business, too, has a justifiable and responsible role to play. The organizations have realized that it has become important to build trustworthy and sustainable relationships with the community at large besides growing their business. In fact, the Social Work Practices and CSR have become integral part of the corporate strategy today in both organized as well as unorganized sectors. In this paper an attempt is made to identify the Social Work Practices (SWP) and CSR programs being initiated by two major oil sector companies, viz. IOCL and BPCL in India. It is further explored that how these practices/ programs can be helpful in overall development of a community/society by supporting specific causes like education, environment, healthcare and social development. It is tried to make cost-benefit analysis and examination of spin-off benefits to these companies. The secondary data is collected from authentic published or e-sources and the results are depicted in tabular and diagrammatic form besides implementing required statistical tools in this paper.

**Keywords:** CSR, Growth Acceleration, Management, Spin-off Benefits, Community focused initiatives etc.)

## I. Introduction

The Corporate Social Responsibility (CSR) and Social Work Practices (SWP) have emerged in today's globalised trading environment not merely as responsibility but as essential requirement benefitting corporate and society both. The concept of CSR having extended the boundaries cannot be ignored by the corporate firms and seen as priority area of business world towards stake holders. It is a vital component for every organization in creating brand image before society. For sustainable development, the CSR is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life at workplace, of community and society (World Business Council). It thus simply defined as the additional commitment by businesses to improve the social and economic status of various stakeholders involved while complying with all legal and economic requirements. It involves addressing the legal, ethical, commercial and other expectations society has for business, and making decisions that fairly balance the claims of all key stakeholders. Effective SWP and CSR aim at "achieving commercial success in ways that honor ethical values and respect people, communities, and the natural environment."

The Ministry of Corporate Affairs has notified Section 135 and Schedule VII of the Companies Act 2013as well as the provisions of the Companies (Corporate Social Responsibility Policy) Rules, 2014. With effect from April 1, 2014, every company, private limited or public limited, which either has a net worth of Rs 500 crore or a turnover of Rs 1,000 crore or net profit of Rs 5 crore, needs to spend at least 2% of its average net profit for the immediately preceding three financial years on corporate social responsibility activities. The CSRactivities should not be undertaken in the normal course of business and must be with respect to any of the activities mentioned in Schedule VII of the 2013 Act. The contribution to any political party is not considered to be a CSR activity and only activities in India would be considered for computing CSR expenditure. The net worth, turnover and net profits are to be computed in terms of Section 198 of the 2013 Act as per the profit and loss statement prepared by the company in terms of Section 381 (1) (a) and Section 198 of the 2013 Act. While these provisions have not yet been notified, is has been clarified that if net profits are computed under the Companies Act, 1956 they needn't be recomputed under the 2013 Act. The Profits from any overseas branch of the company, including those branches that are operated as a separate company would not be included in the computation of net profits of a company. Besides, dividends received from other companies in India which need to comply with the CSR obligations would not be included in the computation of net profits of a company.

The India is acknowledged as one of the fastest growing economies in the world but on the other hand it has to balance

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its growth with equitable conservation of its key resources and the impact on the society. Given that almost a third of the country's population lives in poverty and penury, so CSR provides Indian corporations a readily available and highly impactful opportunity to prove and establish the legitimacy of their actions. The Indian oil and gas sector is one of the six core industries in India and has very significant forward linkages with the entire economy. The India has been growing at a decent rate annually and is committed to accelerate the growth momentum in the years to come. This would translate in to India's energy needs growing many times in the years to come. India's economic growth is closely connected to energy demand. It is of strategic importance and plays a predominantly pivotal role in influencing decisions in all other spheres of the economy.

The companies in oil and gas sector, like- IOCL, BPCL, ONGC, Cairn, HPCL, Shell etc. have been earning millions, like- Indian oil Corporation Ltd. (IOCL) had sales turnover of Rs. 4, 57, 553 crore and profits of Rs. 7, 019 crore during 2013-14, similarly, having market share of 23.48%, the Bharat Petroleum Corporation Ltd. (BPCL) earned Rs.4, 060, 88 crore in FY 2013-14. As this sector is directly linked with the exploitation of natural resources and tremendous harm to the nature and human beings in terms of pollution, so it becomes necessary to explore whether these companies are giving anything in return to the society. Today, Corporate Social Responsibility (CSR) reiterates the notion that development is not the exclusive responsibility of the government. The business, too, has a justifiable and responsible role to play. The organizations have realized that it has become important to build trustworthy and sustainable relationships with the community at large besides growing their business. In fact, the Social Work Practices and CSR have become integral part of the corporate strategy today in both organized as well as unorganized sectors.

## II. Review of Literature

The CSR and SWP have been an area of attention for scholars since their inception and particularly during last two decades. **Gautam and Singh (2010)** concluded that CSR in India has been evolving in demand of profit distribution. There is a need to increase active participation of business in equitable social development as an integral part of good business practice. Voluntarism among employees should be encouraged and institutionalized through recognition, incentives and special training. **Nihalani and Mathur (2011)** examined that most of the organizations are serious about CSR and treating it as a part of their business strategy. Although the organizations are focusing on the key area like economic, cultural, social and environmental issues but still a lot as to be done in aforesaid area. **Ghose (2012)** analyzed that there is a positive correlation between sales and corporate social responsibility investment. It strengthens the market position, goodwill and profitability of the company. A regular monitoring of the company's CSR activities is required both by the state and by company itself and upper management make regular recommendations regarding CSR investment. **Hazarika (2012)** concluded that CSR with a broad purview encompasses key determinants of responsible business in domains of society (stakeholders), economics (the financial sustainability of the business) and care for the environment. This is also referred to as the triple bottom line approach to business accounting and people, planet and profit aspects of a responsible business. The CSR continues to be more often associated with community development initiatives as reflected in the case of two oil & gas public sector companies, where sustainability, corporate governance, human rights, supply chain management etc. being key elements of CSR are dealt independent of CSR. **Nash (2012)** found that the Indian corporate sector is getting tough on CSR spending. The gap between public and private companies with regard to CSR spending will be narrowed shortly. In this context the CSR activities of all the Maharatna companies should be taken as an ideal example and motivator for other corporate who wish to indulge sincerely in CSR activities of the country.

**Govindarajan and Amilan (2013)** found that CSR initiatives have certain impact on financial performance of the industry. There is a linkage between CSR initiatives score with financial performance as well as stock market performance. **Sharma and Kiran (2013)** concluded that companies have to diversify their CSR activities. With the changing world the SWP has to be changed according to the needs of the economy. **Prabhakar and Mishra (2013)** stated that globally the concept of CSR has been accepted as an element for success and survival of business along with fulfilling social objectives. However, the challenge for the companies is to determine a strong and innovative CSR strategy which should deliver high performance in ethical, environmental and social areas and meet all the stakeholders' objectives.

Thus it is visible from above review that CSR and SWP have been implemented by companies not only for serving the society in better way but for spin-off benefits for themselves.

## III. Objectives of the study

- To understand the focused area for Social Work Practices (SWP) and Corporate Social Responsibility (CSR) in oil sector in India.
- To recognize the SWP and CSR Initiatives taken by IOCL and BPCL.
- To analyze the impact of Social Work Practices and CSR Initiatives of IOCL and BPCL.

## IV. Research Methodology

The present research paper is an attempt of exploratory research, based on the secondary data sourced from journals, company reports, company websites and articles. Considering the above objectives, available secondary data is extensively used for the study. Different articles, journals, company reports and websites were used which are enumerated and recorded.

## V. Analysis and Discussion

After making exhaustive examination of the available literature and data, the following results are excavated and presented according the objective set.

**A. Focus areas for SWP and CSR initiatives:** Given due predilection, the CSR and SWP have been presented by companies as part of their programs. Through implementing these programs the companies including the energy business, acknowledge that business doesn't happen in a social vacuum. The development of weaker sections of society, health care, community development, preserving and conserving the environment, education and skill development etc. are the key thrust areas in IOCL. The Health, Safety, Security, Environment and Women Empowerment are the key SWP and CSR areas in BPCL. The HPCL has also taken up Education, Health care, Child care, Livelihood and Community Development as its foremost CSR activities. Likewise Cairn India also focuses on Children, Youth, Health, Women and Education and Livelihood issues. Now all these companies have a policy of setting aside 2% of their retained profit towards CSR activities.

**B. SWP and CSR initiatives taken by IOCL and BPCL:** Both the companies have given due weight to SWP and CSR activities/initiatives.

**a. At IOCL:** At Indian oil Corporation Limited, the CSR has been the cornerstone of success right from inception in the year 1964 and reflected in its mission statement "To help enrich the quality of life of the community and pressure ecological balance and heritage through a strong environmental conscience". The IOCL has defined a set of core values- care, innovation, passion and trust. Some of the initiatives undertaken by the company are given below:

i. Community Development: The CSR projects are mostly undertaken in the vicinity of Indian oil's installations for improving the quality of life of the community which include marginalized groups viz. SCs, STs, OBCs etc. About one fourth of the community funds are append on the welfare of SC and ST beneficiaries. The corporation has also unveiled Kisan Seva Kendra. The IOCL's community focused initiatives include allotment of petrol/ diesel station dealership and LPG distributorship to beneficiaries among SC, ST, physically handicapped etc.

ii. Indian Oil Foundation: It is a nonprofit trust formed in the year 2000 to protect, preserve and promote national heritage monuments in collaboration with Archaeological Survey of India and National Culture Fund of the Government of India. The Konark Sun Temple (Odhisa), Vaishali (Bihar), Kanheri Caves (Maharashtra) etc. have been identified for developing tourist friendly facilities in the monument complex.

iii. Women Empowerment: The Assam oil School of Nursing, Digboi was established in 1986 which offers professional nursing/midwifery courses to unemployed girls of the north east. The students are paid monthly stipend, uniform and free accommodation. The IOCL won the 2nd prize under the category Public Relations Society of India National Award (CSR) in 2012 for this project.

iv. Nurturing Talent: The Education Scholarship Scheme commenced 1985 with 50 scholarships, now expanded to 2600 awarded on merit cum means basis. The 50% scholarships are reserved for SC/ST/OBC students, 25% for girl's students and 10% for Persons with disabilities. While 600 scholarships are awarded for pursuing professional courses like engineering, MBBS and MBA, 2000 scholarships are awarded to students pursuing 10+/ITI courses.

v. Health and Medical care: A 50 bed Swarna Jayanti Samudaik Hospital was established in 1999 to provide medical assistance to residents of Mathura. This hospital operates two mobile dispensaries to provide primary medical care to nearby villages. The hospital provides free treatment to the destitute and offers sub sized treatment to others. Annually about 55,000 patients are treated in OPD and 3500 are treated as in- patients. Similarly, a 200 bed Assam old division hospital at Digboi, which was established in 1906, caters to a population of about two lakh with catchment area extending to Arunachal Pradesh and nearby areas of the north east. This multi-specialty tertiary care hospital has a 24-hours emergency center, well equipped operation theatres, a burn unit etc. In January 2012, IOCL launched a primary mobile health care scheme titled 'Indian Oil Sachal Swasthya Seva' for operating Mobile Medical Units (MMUs), linked to rural petrol pumps of Indian oil. Each MMU, with a 4-member team comprising a registered qualified doctor, a pharmacist, a driver and a community mobilizer visits villages on weekly basis. The patients are provided medical services and medicines free of cost. The MMUs are also used for conducting health awareness camps on Family Planning, Health and Hygiene, HIV/AIDS etc.

vi. Clean Drinking Water: Installation of hand pumps/bore well/tube wells/submersible pumps, construction of elevated water tanks, providing water tap connection, rainwater harvesting projects/kits, aqua guard water purifiers/water coolers to schools/community center etc.

vii. Environment: The IOCL invested Rs.7000 crore in state of the art technologies at its refineries for production of green fuels meeting standards. It also responds proactively for aid and relief to the victims of any natural calamities like floods, tsunami, earthquake, cyclones etc.

**b. At BPCL:** The Bharat Petroleum Corporation Limited (BPCL) being a leading organization recognizes its responsibility towards community and has been working conscientiously for the betterment of weaker sections of society for years. Its vision is to build a powerful partnership with society for sustainable development. It undertook several CSR initiatives in the reporting period with a special emphasis on education, water conservation and livelihood. Some of the initiatives that undertook by the company in the last year are highlighted below:

i. Science Education Program: A unique Science Education Program was started in collaboration with NGO 'Agastya International Foundation' for children of government schools near Solur, Bangalore (Karnataka). The project imparted hands on science education among poor rural children and teachers. The program is holistically designed to spark creative thinking and problem-solving skills, improve learning achievement and expand opportunities for rural children and teachers.

ii. Project Digital Literacy: The Company has entered into the second year with Project Digital Literacy and Life Skills project across 40 low income/ BMC schools in Mumbai in partnership with Pratham reaching out to 25000 children. The children, who were otherwise completely unaware of computers, have now been able to grasp and operate computers with confidence. Besides enhancement in their confidence, they are also enthused to attend school regularly now.

iii. Read India: In Nandurbar and Sagar, the company has entered into the third year of pilot project of Read India reaching out to 50,000 children. The project had a very positive impact on the learning levels of children. In Sagar, the children who were the part of the project have gained 40–50 % higher scores than other students. The program imparted computer education to children from Govt./low-income schools. It started with 11schools near the boiling plant in Uran (Raigadh, Maharashtra) and 10 schools near the boiling plant in Lucknow. Today, it has scaled it up to 75 schools in Uran and Lucknow. It will be able to increase their outreach to 60000 children in the next couple of years through the program.

iv. Project Boond: The continuing success of one of the most extraordinary projects 'Boond', it converted 20 villages from water scarce to water positive. These villages are now not only able meet their drinking water needs but are also able to mitigate risks associated with water scarcity in agriculture. There is also an increase in ground water level, decrease in water salinity, better soil moisture and increased agriculture output.

v. Empowering women and youth: The BPCL has initiated skill based intervention programs for women in collaboration with NGO SEWA in Lucknow. It taught 'chikankari skill' to around 1000 women from low economic strata near boiling plant in Lucknow. Today they are earning around INR 5000 to 6000 per month. The women have an enhanced self-esteem, are able to manage their domestic chores as well as earn an additional income and above all this project has eliminated middle men. The company trained 300 youth in Ranchi (Jharkhand) through partnership with Dr. Reddy's Foundation. The skills are mainly in motor mechanic, customer relationship management, BPO services, hospitality, multi skilled technician and machine operator, micro irrigation operator, security, drivers, IT-enabled service, practical literacy of computers to children. It also reflected an improvement in the subjects of Mathematics and English as a result of activity based learning through computers.

**C. Impact of SWP and CSR initiatives:** Both the companies have put tremendous efforts to bring the downtrodden section of the society into the streamline through inclusive approach. Through its SWP and CSR initiatives IOCL is spreading smiles in lives of billions of people. During 2012-13, its CSR investment was Rs.78.97 crore. About 10, 76,385 Patients were checked under the scheme Indian Oil Sachal Swasthya Seva in Andhra Pradesh and Uttar Pradesh during 2012-13. Around 2600 scholarships were awarded (from about 38,000 applications) on Merit-cum-means basis: [300 Engineering (4 yrs.), 200 MBBS (4 yrs.), 100 MBA (2 yrs.) @ Rs.3000/month and 2000 10+/ITI (2 yrs.) @ Rs.1000/month in 2012-13. The 150 scholarships (19 sports) are awarded to upcoming junior players (14-19 years of age) under the Indian Oil sports scholarship scheme. As per Ministry of Petroleum and Natural Gas (MPNG) guidelines, Rs.15.82 crore (20% of 2% previous year's Net Profit) was contributed towards new LPG connection to BPL families under RGGLVY. The Assam Oil Division Hospital, Digboi catering to a population of 2 lakh, treated 1.06 Lakh patients (non-employee patients: 17,377) in 2012-13.

The Sarv Santu Niramaya project was launched in villages near Digboi in Dec-2012 with an aim of 'Good health to all'. The project's objective is to provide free health consultation and medicines for human beings and livestock population. During 2012-13, 284 human beings and 3064 animals were treated. So far, 860 human beings and 6478 animals have been treated under this program. Since its inception in 1986, the Assam Oil School of Nursing, Digboi, 334 students have successfully completed 4½ year diploma in General Nursing and Midwifery. The IOCL bears the entire expenditure for 20 girls selected for the course each year. Till 2013, 316 students have successfully completed the course and the placement record is 100%. The corporation also supports a variety of endeavors in arts, culture, music and dance apart from organizing programs on its own under the banners of Indian Oil Art Exhibition, Indian Oil Sangeet Sabha etc. The IOCL also bagged the CSR Corporate Governance award 2012 by IPE, Hyderabad.

The BPCL successfully implemented six Sustainable Development projects in accordance with the Department of Public Enterprises (DPE) guidelines during the year 2012-13. It has taken the lead in establishing operations in compliance with industry and national regulatory requirements by targeting to minimize waste generation; reduce water consumption; encourage water neutrality at units and utilization of solar energy at its units. It is striving towards their mission of promoting ecology and environment up-gradation by marketing high performance fuels like Speed, Speed 97 and Hi-speed diesel. The Mumbai refinery launched the 'Green Earth Campaign' to plant 10,000 saplings in areas in and around Mumbai. It supports the elimination of all forms of forced and compulsory labour. The BPCL operations ensure the effective abolition of child labour. During 2013-14 it transformed 25 new villages from 'water scarce' to 'water positive'. The Computer assisted learning (CAL) Digital Literacy and Life Skills Program, Education Assistance Program (EAP) and other projects were started for an outreach to 75000 children. The Rain Water Harvesting

Program is executed in 25 droughts –affected villages that are facing water shortage. It reached out to 250 underprivileged youth in Eastern Region by providing vocational training. It also facilitates exhaustive training of 500 women in Lucknow (Uttar Pradesh) through the 'Economic Empowerment and Income Generation Program'. It partnered with the NGO, MS Swaminathan Research Institute, for imparting innovative and effective farming techniques to the widow women farmers. It has reached out to about 500 such women farmers. It also set up a 'Soil Testing Lab' to help these women farmers understand the quality of the soil before undertaking farming. Apart from this, it also provided a helpline using which they can interact with the experts on daily basis and get advice on various farming and animal husbandry issues. For implementation in all the community investment programs, it include the key aspects related to needs assessment, baseline assessment and perform impact assessment of initiatives internally as well as through external agencies to understand the benefits delivered through the project. The community participation is also encouraged and is an integral part of all community investment activities. Under the Science Education Program project it reaches out to 10000 children. It entered into the second year with Project Digital Literacy and Life Skills project across 40 low income/ BMC Schools in Mumbai in partnership with Pratham reaching out to 25000 children. It trained 300 youth in Ranchi (Jharkhand) through partnership with Dr. Reddy's Foundation. Under Project 'Boond' 20 villages are converted from 'water scarce to water positive' in Maharashtra and extended to districts in Karnataka and Uttar Pradesh. The BPCL got the AajTak CSR Award in the livelihood and sustainability category for contribution in the women empowerment. It also won the 'Aqua Excellence Award' for Project Boond.

**Conclusion**

Taking into account the insinuation and significance of the social service, the Social Work Practices and Corporate Social Responsibility initiatives are made an integral part of mission document of IOCL and BPCL. The CSR expenditure of IOCL during the 2013-14 is Rs. 81.91 crore as against Rs. 78.97 crore in 2012-13. Indian oil has made continues efforts for sustainable development by addressing the concerns for environment, aspirations of community and creating values for stakeholders. Similarly, the BPCL has been able to improve the living standard of around 70,000 people. Both the companies have focused on improving the health and education facilities, nurturing talents through skill development and computer and technical literacy, preserving and conserving environment through availability of water, plantation, bestowing green culture, helping women and children belonging to poor section of society, making peopleself dependent and giving zeal to life. The SWP and CSR initiatives taken by these companies are cherished and appreciated by different bodies by awarding and accolade from time to time. A lot is yet to be done but the initiatives taken are surely in the right direction.

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# "Underdog brands utilizing Comparative advertising in Modern India"

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**Abstract**

The trend of comparative advertising in India is changing at the pace more than expected and the acceptability is growing. The study has shed some light on the content of comparative advertising. As hypothesized the study proved that underdog brands are using this technique more, there are more bold direct references than hesitant indirect naming the competitive brand in the advertisements. The valence of advertisements are negative than positive which means that the advertisements try to denigrate the competitive brand to gain dual advantage of own growth and competitive brand destruction. The study offers intuitive knowledge for the managerial and research sector.

**Key words:** brands, underdog brands, top-dog brands, comparative advertising,

## Introduction

The term 'comparative advertising' refers to any form of advertising in which an owner attempts to enjoy benefits from a comparison between his product, service, or brand and that of a competitor. They may explicitly name a competitor or utterly refer to him. They may either accentuate the similarities or the differences between the products. They may also state that the advertised product is 'better than' or 'as good as' the competitor's. Comparative advertising generally possesses two components, puffery and unfair criticism. Puffery is where the advertiser seeks to draw the consumer's attention by making superlative claims about his product that are assertions of outlook, rather than demonstrable statements of fact. Often puffery crosses the limits of forbearance and seeks to depict the competing product in a negative light. Underdog brands often operate puffery, as to claim their pre-eminence over the next brand. The same is then said to amount to denigration, which the courts have strictly prohibited. Thus, the material question that often arises is, to what extent comparative advertising may be constrained. The answer lies in developing a clear understanding of the conflicting interests of the various stakeholders involved, including the advertiser, the competitor and the consumer. The advertiser's objective herein is to present his products in a manner such that the consumer is most likely to purchase it. With the liberalization and globalization of the Indian economy, as could be projected, firms have been antagonistically and enthusiastically promoting their products and services. Not only the consumers but even the firms need adequate law against inequitable trade practices to have some 'rules of the game' for competing among themselves. In a competitive environment, every representation of a product or service is about what 'others are not'. Such other party is usually his competitor or the market leader of that good or service. The comparison is made with a view towards increasing the sales of the advertiser, either by suggesting that the advertiser's product is of the same or a better quality to that of the compared products or by denigrating the quality of the compared product.

The phase of comparative advertising is varying at a fast pace, in this phase we came across several facts which are altering at a fast pace. We initiated the study with the mindset that only bottom dog brands are using comparative advertising, but the facts were a bit different. Top-dog brands like BMW n Audi are also a part of this club may be as a sufferer or as the aggressor. The reality of the market suggests that there is active participation of bottom dog brands in the area but the presence of top-dog brands is also undeniable. The war of Mercedes and BMW is well known around the world.

Although our study is for Indian market but studying the pattern of few close related economies was necessary. Indian market follows in the foot step of U.S market trends, and is closely affected by the economy of China and U.K. We studied their marketing situation of different countries in the area to support our hypothesis and compare it with their market situations. Comparison can make it easy for us to predict future of our market and how changes in their market situation affect ours.

## Comparative Advertising In India

In India are regulated by the Advertising Standards Council of India (ASCI) which is a self regulatory body and lays down a code to be followed by the advertising industry which is not in competition with the law. With respect to comparative advertising, the code lays down as follows:

1. Advertisements containing comparisons with other manufacturers or suppliers or with other products including those where a competitor is named is permissible in the interests of vigorous competition and public enlightenment, provided:

a. It is clear what aspects of the advertiser's product are being compared with what aspects of the competitor's product.
b. The subject matter of comparison is not chosen in such a way as to confer an artificial advantage upon the advertiser or so as to suggest that a better bargain is offered than is truly the case.
c. The comparisons are factual, accurate and capable of substantiation.
d. There is no likelihood of the consumer being misled as

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result of the comparison, whether about the product advertised or that with which it is compared.
e. The advertisement does not unfairly denigrate attack or discredit other products, advertisers or advertisements directly or by implication.

2. Advertisements shall not make unjustifiable use of the name or initials of any other firm, company or institution, nor take unfair advantage of the goodwill attached to the trade mark or symbol of another firm or its product or the goodwill acquired by its advertising campaign.
3. Advertisements shall not be similar to any other advertiser's earlier run advertisements in general layout, copy, slogans, visual presentations, music or sound effects, so as to suggest plagiarism.

Comparative advertising aims to objectively and truthfully inform the consumer, and promotes market transparency, keeping down prices and improving products by stimulating competition. Therefore, it is important to protect the interests of such competitors by not allowing comparative advertising to cause confusion, mislead, or discredit a competitor.

There is no definition or explanation as to what constitutes “honest practices”. There is a large and clear shared core concept of what constitutes honest conduct in trade, which may be applied by the courts without great difficulty and without any excessive danger of greatly diverging interpretations.

Some brands want to build their images around controversy and ambush—in which case, it may still be strategically correct. Still, there is no research that shows consumers like it more than they like a brand that seeks to connect with them in a positive way. For example, Heinz India's Complan compared its ingredients to the health drink “Brand H,” though it was extremely obvious that Complan was referring to its main competitor, Horlicks, from GlaxoSmithKline! But of late, the comparisons have seemingly become more explicit and direct; the other brand is openly named. The possible reason for this change in tone is that with increasing Western influence, Indian consumers are transitioning from a high-context culture to a low-context culture, especially in urban India. Following Western consumer markets like the U.S., advertisers in India feel it apt to use direct comparative advertising and this is one of the reason why the style of our advertising is changing. In US origins of what is now known as "comparative advertising" reached maturity in the 1970s and 1980s. Advertisers were no longer reluctant to identify on air or in print their chief competitors. They boldly extolled the virtues of their products, explaining why they would last longer, dissolve quicker, run faster, or remove the dirt more easily than their competitors' products.

The pronouncements of higher quality and more durability came, inevitably, the assertions that the ads were misleading and even downright false. Advertisers who believed they were on the receiving end of these false or misleading comparisons needed some legal support to halt the continued distribution of the offending advertisements and, in some cases, to obtain compensation for lost sales or loss of goodwill. For example A television advertisement promoting Ujala liquid blue showed that two-three drops of this brand were adequate to bring striking whiteness of clothes while several spoons of other brands were required for the same effect. A lady holding a bottle of Ujala was looking down on another bottle without any label, exclaiming 'chhi, chhi, chhi!' in disgust. The manufacturers of Regaul, a competing brand, complained to the Commission that the advertisement was disparaging its goods. The Commission elaborated the meaning of the provision: In order to bring home a charge under clause (x) of Section 36A (1) it must be established that the disparagement is of the goods, services or trade of another. The words 'goods of another person' have a definite connotation. It implies disparagement of the product of an identifiable manufacturer. The Commission was of the view that 'a mere claim to superiority in the quality of one's product' by itself is not sufficient to attract clause (x). In the advertisement, neither did the bottle carry any label nor did it have any similarity with the bottle of any other brand. The Commission, thus, was of the opinion that it could not be classified as a case of disparagement of goods.

Anecdotal evidence seems to suggest that there has been a shift from indirect to direct comparisons; there has also been a rapid increase in the number of comparative campaigns. Of the 57,000 advertisements in the Millward Brown (2009) Link TM copy-testing database, globally about 4% of the advertisements were classified as comparative in nature. The United States, India, and Philippines have a high proportion of comparative advertisements (7%), followed by Taiwan, Australia, and Brazil (4%).

The trend in the field of advertising is changing the hesitant indirect comparisons is being replaced by bold and assertive direct comparison advertising. This paradigm shift in the nature of advertising in an emerging economy like India has received a little academic attention. No recent research has looked in to the matter but you might find too many researches related to laws in advertising and comparison with different nations.

Comparative advertising in its way forms distinctive class o advertising. There are many dimensions to it as explained in the introduction, but in order to understand its true nature we are need of studying these dimensions in detail. To understand the current pattern the examination of the same is compulsory.

**Dimensions**

- The advertisement is from whom, sitting at what level and is addressed to whom, i.e. the level of the brand advertising it and is advertising it for which brand, it's the brand a close market share competitor or a market leader.
- The manner in which the advertisement refers to its competitor that is direct or indirect. It means directly naming it or indirectly making a reference of it.
- The objective of doing the advertisement, the advertiser is trying to relate the product with the competitor or trying t

differentiate it.

- Comparisons are made with the market leader or with multiple brands.
- The valence of comparison is positive or negative.

The above mentioned dimensions are providing us different aspects of the current comparative advertising. It is important to have the knowledge of the above mentioned dimensions for 2 broad reasons:

Managerial: Indian economy is a fast growing economy and in such an emerging economy the pace of change is comparatively faster. To track and understand the pattern one is suppose to acquire the knowledge of all the dimensions. It always comes in handy while trying to understand the current technique of advertisement done by the competitors.

In an emerging economy it has been observed that the new entrants are spotted easily. The knowledge of every aspect related to marketing is a must for them. The technique of comparative advertising is seen extremely useful for the new entrants as they normally use the tool of price for defeating the competition. The tool of price against competition is best highlighted in comparative advertisement.

Research: There is not much work done in the area of comparative advertising from research point of view. This paper will lay down another stone of research in the field so that it can easily spot. The findings of this research will be helpful for future references. The findings will also open new areas in this field for further research.

**Review of Literature**

The literature on comparative advertising is vast and varied. Broadly speaking, the literature can be classified into four types, based on the following issues:

(1) Comparative advertising plays a vital role in increasing the perceived quality and demand of the advertising brand.
(2) Comparison of comparative advertising with other kind to check its effectiveness, for that different studies in different in the area are considered.
(3) Case studies related to comparative advertising, and
(4) Studies using content analysis to understand nature of comparative advertising in various cultures.

Results of these studies have been summarized in the following paragraphs:

In the first Classification, we find that the role of comparative advertising is found to be effective in denigrating the perceived quality of a targeted brand. Researchers like Anderson and colleagues (2009) show that comparative advertising is less effective at increasing the image of the advertising brand vis-`a-vis non-comparative advertising, but comparative advertising has a substantial effect by reducing the market share of the rival brand(s). In short comparative advertising is found effective when we want to attack our rival brand but at the time when we want our brand to gain momentum in the market comparative advertising is not suitable.

In the third Classification, Pathak (2005) compiles the various regulatory cases of comparative advertising in India and identifies a need for strengthening regulations, introducing appropriate laws, and adequately enforcing the same. There is an immediate need in the market of quick dispute settlement program for gaining control in the section. New laws that defines the boundaries in such a manner that no loop hole is left are needed, so that the companies cannot misuse the technique for degrading the competitors product.

In the Second Classification, that is, the comparative advertising effectiveness studies, advertising effectiveness was measured either using the hierarchy of effects model as proposed by Lavidge and Steiner (1961) or the situational effects model. Using the first, researchers found no consensus on the effectiveness of comparative advertising over non-comparative advertising; thus, the literature on comparative advertising effectiveness is divided into two schools of thought.

On one hand, it was found that comparative advertisements are more effective than non-comparative advertisements, and the on the other hand it was reported that comparative advertising produces undesirable consequences and that they are offensive (Goodwin and Etgar 1980; Levine 1976; Shimp and Dyer 1978). Due to the instability in the results using the prior models researchers were not able to justify the hypothesis many a times. In other words, the answer to the question "Is comparative advertising better than non-comparative advertising?" is not a clear- cut "yes" or "no" but "It depends." For getting the desired hypothetical result one has to design comparative advertisement to fit shopper's psychology.

In the fourth classification, some researchers have explored the extent and nature of comparative print advertisements, particularly pertaining to comparative advertising in the U.S. The early two studies, Shimp (1975) and Brown and Jackson (1977), examined TV commercials to determine the frequency of comparative advertising, the types of products compared, the competitive advantages stressed, and the extent to which a competitor's name is mentioned. For the recent study Kalro; Sivakumaran; Marathe (2010) studied the effect of comparative advertising on the brand of the product and its impact on the mind of the consumer. There are different scenarios which can be found in more research studies.

Research over the years has analyzed Indian advertisements to understand various aspects like content used in the advertisement, cultural similarities, and differences in content and visuals, there has been hardly any research done on analyzing the content and nature of comparative advertising in India. In this study, we have used content analysis for the purpose of studying the nature of comparative advertising.

**Hypotheses based on concept**

Comparative advertising as discussed in the paper earlier has many dimensions. These dimensions are the grounds for analyzing the comparative advertising. The hypotheses developed are of many types and are based these dimensions. To study the trend of the comparative advertising in India we need to analyze these advertisements on the basis of these dimensions and the hypotheses build on the basis are:

**H1- Used by underdog or top-dog brands**

On the basis of our first dimension, we thought of testing fact that as the no. of ads by top-dog brands in the area is increasing, are they using it more then underdog brands. Use of this technique by an underdog is the story every one familiar to the field is well aware of but the sudden rise in the no of advertisement by the top-dog brands has made everyone to look in to the matter. Now a day the effect of this technique can be seen on every consumer, it doesn't matter that to which class the consumer belongs too. Since the technique has started leaving its impact on the mind of the cream layer customers, the brand to which this class matters the most had to pay attention.

Normally it affects the upper class for the reason that this segment is mostly literate and pay attention to the facts and the factual representation is the very essence of this technique. So that's why comparative advertisement is having a fast acceptance among the audience.

So therefore our hypothesis one is that the top-dog brands are using it but lesser in comparison to the underdog brands.

**H2- Direct or Indirect Comparison**

The various legislative developments and amendments in the law governing competitive advertising in India have gone hand in hand with India's economy. Comparative advertisement is permitted by section 30 of the Trade Marks Act, 1999 which allows the use of registered trademarks provided that it is honest use, that it does not take unfair advantage of the trademark and that it does not damage the goodwill associated with the trademark.

Restriction from the govt. has been removed now the question is whether the companies want to go for naming the competitor directly or not. In a low context culture country like U.S the situation is different the consumer of that culture responds better to the direct comparison. Now in a country like India the situation is changing as we are moving towards low context culture from high context culture due to technology adaptation so the trend in advertising is also changing.

So therefore our hypothesis two is that the use of direct comparison in advertisements is more than indirect.

**H3- Nature of the advertisement carries a negative or a positive way of addressing.**

The advertisement can address the issue of comparison in two different ways the valence of the advertisement can either be positive or negative. By valence we mean the nature of advertisement, the approach with which we address can be puffery but should not be denigrating. The issue of valence had been a major one in the books of law. Several rules had been passed in too many countries just to make sure that the limits can be well defined to control denigration.

But in spite of all the efforts and laws till date the control on valence has never been established. The valence of comparative advertisement has been negative, as it serves one purpose extra then the advertisement having a positive valence, both increases the sales but only with negative valence you can decrease the market share of the competitors. It is not that negative valence ads are well received by the audience, positive ones has shown a better acceptability rate but at the end it all depends on the preference of the advertiser. So that's why out hypothesis four is that the no. of ads carrying negative valence will be more in no than the ads carrying positive valence.

Research methodology

Normally in such type of studies, the research technique used is content analysis. In most of the communication content based studies as standard methodology content analysis is used. In our study content analysis helps in studying what advertisements do and are.

For collecting our sample we came across various websites, newspapers and magazines. After covering major areas of Medias where print ad is advertised we encountered more than 700 individual advertisements, out of which only 50(6.887%) was the number of comparative advertisements. Each of the advertisement was checked carefully to see whether they used comparative claims or not. The no was found very close to that of 7% mentioned in Millward Brown database.

We followed the coding procedure in which we coded each ad separately according to our hypothesis. It was coded as direct or indirect, superiority or parity and single or multiple competitors. Coding was done very carefully as sample size was not large enough. We implemented chi-square on the sample to testify our hypothesis.

**Results**

**H1- Used by underdog or top-dog brands**

H0 – the number of comparative advertisements done by underdog brands are not more than advertisements done by top-dog brands.

H1 – the number of comparative advertisements done by underdog brands are more than advertisements done by top-dog brands.

Out of the 50 samples that were studied 70% of the advertisements were from the underdog brands i.e. Where the brands were in affordable price range of the masses and the remaining 30% were belonging to the high level brands.

Oi – the no. of advertisements by underdog brands was 35 and the no. of advertisements by top-dog brands was 15.

Ei - the expected no. was taken on the basis of expected mean which was 25

N= 50, X2 = 8, the table value for X2 is 3.841 for d(f)=1 at 5%

Here the prediction was accepted alternate hypothesis is acceptable as the calculated value of X2 is more than tabulated value. This proves that numbers of advertisements by top-dog brands are less than underdog brands.

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**H2 - Direct or Indirect Comparison**

H0 – the number of direct advertisements are not more than indirect.

H1 – the number of direct advertisements are more than indirect.

Out of the 50 samples that were studied 72% of the advertisements were direct i.e. Where they made explicit reference to the competitor and the remaining 28% were of indirect nature

Oi – the no. of direct advertisements was 36 and the no. of indirect was 14.

Ei - the expected no. was taken on the basis of expected mean which was 25

N= 50, X2 = 9.68, the table value for X2 is 3.841 for d(f)=1 at 5%

Our prediction regarding H1 that no of explicit reference to the competitors is higher than hesitant attacks was supported. This era companies are shifting their style of comparative advertising from indirect to direct.

H3- Nature of the advertisement carries a negative or a positive way of addressing.

H0 – the number of negative valence ads are not more than positive valence.

H1 – the number of negative valence ads are more than positive valence.

Out of the 50 samples that were studied 96% of the advertisements negative valence i.e. Where they tried to denigrate competitor brand and the remaining 4% only were of positive valence.

Oi – the no. of superiority claiming negative valence advertisements was 48 and the no. of positive valence was 2.

Ei - the expected no. was taken on the basis of expected mean which was 25

N= 50, X2 = 42.32, the table value for X2 is 3.841 for d(f)=1 at 5%

The value is much higher which means that the alternate hypothesis where the no of negative valence ads are much more in practice in the area than the positive valence ads. The trend shows that the objective of advertisement in most cases is to prove superiority.

**Discussion and Implementation**

As we have discussed earlier the major implication of the research is in two broad areas. The implication of the study is useful and will help understand the scenario of the market in both the areas. The study sheds light on the fact that the paradigm is shifting and the trend is changing at a pace with the dynamism in the market. If we relate it to the consumers also the behaviour of the consumer is changing, in the sense that the consumer is becoming more and more acceptable to the changes in the market.

The study bring to the light the fact that the style of comparative advertisement is more acceptable by the consumer due to the reason that consumer pre purchase dilemma is decreased. Cognitive dissonance is an irritating feeling where the consumer is seeking for a solution and some how comparative advertisement is the answer. It provides the consumer with hardcore facts on the basis of which satisfaction is attained easily by the consumer.

**Conclusion**

The trend of comparative advertising is gradually gaining its pace in the south asian continent and is making an upward shift. Its popularising its use from bottom dog brands to top dog brands. India seems to follow the U.S trend yet in another feild, the pattern in which comparative advertising is gaining momentum is very similar. In future we can expect a rise in the frequency of such advertising, as it serves best in the kind of market and competition we are experiencing now.

**Notes**

1. Colgate Palmolive (India) Ltd. vs Hindustan Lever Ltd., a judgement of the MRTP Commission, 18/11/1998, Citation: 1999(2) CPJ 19.
2. ASCI's self regulation code,
3. ASCI's report of board of governors, April 2007 to March 2008.
4. Pepsi Co. Inc. v. Hindustan Coca Cola Ltd., 2001 (21) P.T.C. 722.
5. MRTP Act 1969, number 54.

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# Impact of SHG Programme on Asset Holdings of Households

***Simran Jaidka**

**Abstract**

The present paper hypothesises that SHG-BLP through financial inclusion of the poor leads to asset creation amongst beneficiary households in Panchkula district of Haryana. Information based on primary survey of 17 SHGs and 225 households brings out that SHG programme significantly increased assets of beneficiary households. Multivariate analysis based on regression analysis reveals that human resources in the form of number of workers and their educational attainment are found to positively impact asset creation amongst beneficiaries. Half of the microcredit loan was used to directly create assets.

**Key words :** Self Help Group and assets

**Extended Summary:** The Self Help Group Bank Linkage Programme (SHG-BLP) in India aims at helping the poor to invest in an income generating activities and improve the economy of the poor in terms of income, consumption and assets. The present paper examines the impact of SHG-BLP on asset creation amongst beneficiary households in Panchkula district of Haryana. It is hypothesized that financial inclusion of the poor leads to asset creation amongst beneficiary households. To test the same the study makes use of the case-control approach. Asset holdings of 150 households belonging to 17 SHGs and 75 households belonging to non-SHG background was estimated using the NSSO definition, through personal interviews. It was ensured that households belonged to similar socio-economic background. Case-control comparison of the households reveals that assets of the case group are significantly higher than those of the control. The result was further strengthened by multivariate regression analysis. Human resources in the form of number of workers, their educational attainment and employment pattern were found to significantly impact asset creation. The study also reveals that more than half of the loan was directly used for building asset.

**List of abbreviations**

AP : Andhra Pradesh
GOI : Government of India
MGNREGA : Mahatma Gandhi National Rural Employment Guarantee Act
NABARD : National Bank for Agriculture and Rural Development
NCAER : National Council of Applied Economic Research
NSS : National Sample Survey
NSSO : National Sample Survey Organization
SEWA : Self Employed Women's Association
SHG : Self help group
SHG-BLP : Self-help group bank linkage programme
SIDBI : Small Industries Development Bank of India
TN : Tamil Nadu
UP : Uttar Pradesh
WB : West Bengal

The total number of Self-help groups (SHGs) has risen to 79.60 lakhs as on March 31st, 2012 (Joshi, 2013). The total savings of these SHGs amounted to 6551.41 crores at the end of March, 2012 (NABARD, 2013). Does such exponential growth in the number of groups and their savings indicate their success? The programme aims at assisting poor, particularly women to set up enterprises to improve their economic status and empower them. Has the self-help group bank linkage programme (SHG-BLP) helped the poor to uplift their economic status? Are the women empowered? The jury is still out.

Microfinance provides financial services to help the poor set up microenterprises. Microfinance institutions also impart skills with finances for the poor but enterprising clients. The SHGs which help the poor establish small enterprises and meet their survival needs. At times these loans are invested for medical treatment, repair of dwellings, the education of children, consumer durables and some such existential needs. Meeting ones survival needs with loan money is unexceptionable. But these loans are ideally invested in income generating activities. Loan money spent on health and educational exigencies is welcome indeed. Good health and better education can pay dividends in the long run. Loans unproductively spent turn into bad debts and drive such loanees into an unending circle of poverty and indebtedness. Alas! it also drives into suicide.

The objective of the present paper is to examine the impact of SHG-BLP on the asset building of beneficiary households. It is hypothesized that the programme intervention leads to an increase in assets of beneficiary households. Assets of microfinance client households can be impacted in two ways. The same has been elaborated in Flow chart 1. In case, the credit obtained is directly used to purchase a productive or non- productive asset or is used to augment the value of an existing asset, an addition to the total asset value takes place. But if credit is used to set up an income generating activity which does not involve purchase of an asset, then income may increase. Increased income may be used in the long run to create an asset.

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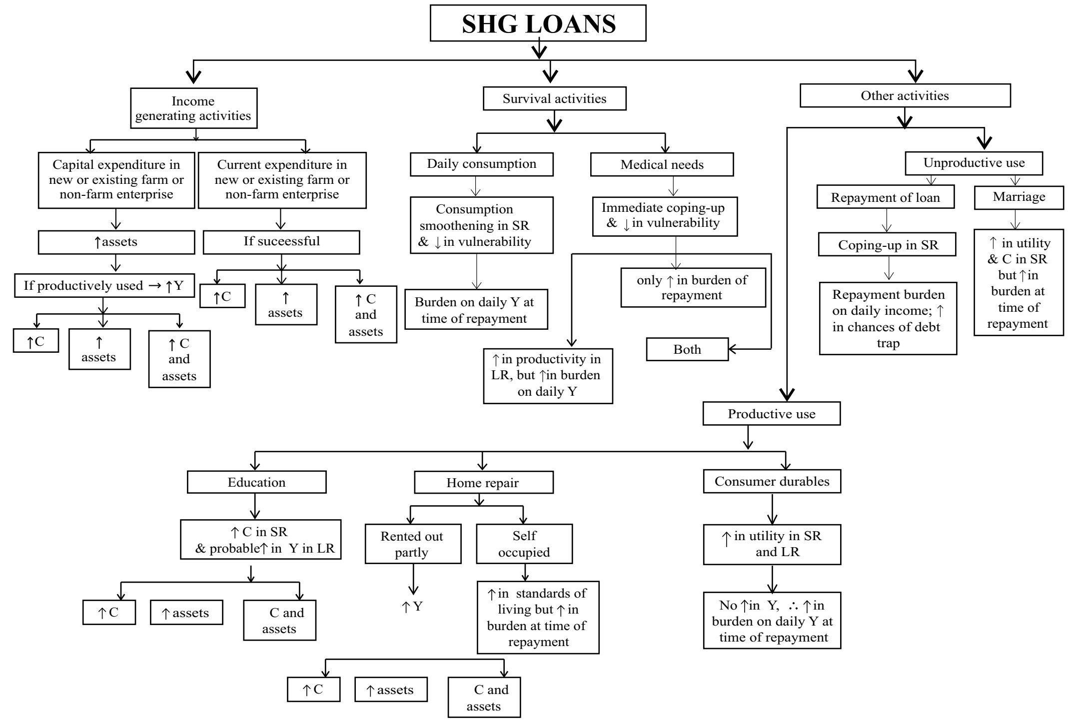
**Flow chart 1: Financial inclusion and economic status: Mechanisms and pathways**




Note: SR indicates short run; LR indicates long run; Y indicates income; C indicates consumption; ↑ indicates increase; ↓ indicates decrease, → indicates leads to

Having introduced the objective and the hypotheses of the paper, the subsequent section 2 describes briefly the methodology followed in the measurement of assets. Section 3 brings forward the major findings of the existing literature available on the impact of microfinance on assets in particular. Section 4 makes a case-control comparison of assets to analyse the impact of SHG-BLP on the beneficiary households. Section 5 discusses at length the findings of the present paper. The summary of the findings is provided in section 6.

## 2. Data and methodology

2.1 Data: The study is based on data collected on the basis of multistage random sampling technique from Panchkula district of Haryana. We used the case-control approach for evaluation of consumption of the beneficiary households. Thus, besides collecting information from 150 SHG households, we also collected information from 75 non-SHG households with similar socio-economic background, preferably from immediate neighbourhood of beneficiary households.

2.2 Methodology: An asset is a tangible or intangible good that produces utility or value upon use. It is only partially used and continues to possess value even after use. Thus, assets serve as store of value as well. In calculating the assets of the sample households we use the National Sample Survey Organization (NSS0) definition and methodology. According to the definition of assets as given in concepts and definitions used in National Sample Survey (NSS), all things owned by a household and having money value, e.g., land, building, farm and non-farm machinery, tools or implements, transport equipments, livestock et cetera comprise assets. It also includes durable household assets, dues receivable against loans advanced in cash and kind, and financial assets like shares in co-operative societies, banks, et cetera, national saving certificates, deposits with banks, post offices and with individuals (GOI, 2001).

An exhaustive list of 11 categories of assets was prepared. A sum of present market value of all assets is used to find out the stock of assets of a household. In the present analysis we have enumerated value of assets of a household both with and net of land ownership.

Using the above methodology, the average household and per capita assets are estimated separately for the case and control groups, and a comparison is drawn. Z- test is used to test whether the difference is significant or not.

## 3. Impact of microfinance on asset holding: Existing empirical evidence

Studies examining the impact of microfinance intervention on assets of beneficiaries are summed in Table 1.

**Table 1: Review of literature related to impact of microfinance on assets**

| Study | Coverage | Methodology | Findings |
|---|---|---|---|
| Pitt and Khandker (1998) | Bangladesh | Case-control approach | Increase in women's non - land asset. |
| Puhazhendi and Satyasai (2000) | India (11 states) | Before-after approach | 72.3 percent increase in assets. 58.6 percent sample households registered an increase in assets. |
| Chen and Snodgrass (2001) | India (SEWA Bank) | Case-control approach | Increased spending on household improvement. Repeat borrowers spend more on consumer durables as well as household durables. |
| Puhazhendi and Badatya (2002) | Orissa, Jharkhand, Chhattisgarh | Before-after approach | 30 percent increase in assets of 45 percent households. |
| NCAER (2008) | AP, Karnataka, Maharashtra, Orissa, UP, Assam | Before-after approach | 9.9 percent average annual growth rate of durable and non-durable assets. |
| SIDBI(2008) | TN,WB,UP, AP, Orissa, Rajasthan, Karnataka, Kerala, Assam, Manipur | Case-control approach | Increase in overall assets and savings. Also share of total productive assets in total assets increased from 37 percent to 47 percent. |
| Swain and Varghese (2009) | Orissa, Andhra Pradesh, Tamil Nadu, UP, Maharashtra | Case-control approach. | Increase in assets. Positive relation with length of membership and with high initial wealth status. |
| Adjei et al. (2009) | Rural and urban Ghana | Case-control approach. | Increase in assets but no association with length of membership. Increase in involuntary savings. |
| Coleman (2006) | Thailand | Case- control approach | Significant increase in assets and contribution towards purchase of household durables. |
| Rahman, Rafiq and Momen (2009) | Gazipur, Dinajpur, Chokoria (Dhaka), Bangladesh. | Case-control approach. | Increase in assets but more in high income groups. Age and education of head and spouse of head has positive impact. |
| Rooyen, Stewart and Wet (2012) | Secondary data from multiple areas | Literature review | Mixed results |
| Coleman (1999) | Thailand | Case-control approach. | No increase in assets observed. |
| Ghosh (2005) | Nadia, West Bengal. | Field enquiry and literature review | No asset creation observed. |
| Lakwo (2006) | Nebbi, Uganda | Case-control approach. | No asset creation. |
| Bera (2011) | Midnapore district, West Bengal | Before-after approach | No increase in assets, only increase in savings was observed. |
| Deininger and Liu (2013) | Andhra Pradesh | Case-control approach | No increase observed. |

Source: Review of literature

Literature summed in the above table shows mixed results. Some studies found an increase in assets while the others failed to report the same. However, no study reports an increase in land assets. Only non-land assets are augmented as a result of microfinance intervention. Increased spending on household improvement was observed. Higher educational attainment, higher age and higher initial income and wealth status were found to positively impact asset building in households. Length of membership was also reported to positively impact asset creation by a study while another study failed to find a significant relationship between the two. It was observed that repeat borrowings were often spent on consumer durables. Having briefed the existing literature in the present section, the subsequent section presents the findings of the present study.

## 4. Impact of SHGs on asset creation: Empirical evidence

The current study uses the methodology explained in section 2 to measure assets of the case and control groups separately. This section is divided into two sub-sections. Sub-section 4.1 compares total household and per capita assets of the case and control groups, while sub-section 4.2 compares the same, net of land holding.

4.1 Household assets: Case-control comparison

The assets are divided into two categories, namely productive assets and non-productive assets.

**Table 2: Household assets: Case-control comparison**

| | Average household assets (Rs.) | | | Difference | Standard error | Z-value |
|---|---|---|---|---|---|---|
| | Total | Case Group | Control group | | | |
| Total assets | 1037561.12 | 1376445.00 | 359793.36 | 1016651.64 | 308769.25 | 3.29* |
| Productive assets | 990518.32 | 1323557.29 | 324440.36 | 999116.93 | 308400.96 | 3.24* |
| Unproductive assets | 47042.80 | 52887.71 | 35353.00 | 17534.71 | 12407.88 | 1.41 |

Source: Field survey
Note: *indicates values significant at 1% level of significance.

Table 2 shows the value of all household assets. A look at Table 2 reveals that the average household assets of the case group are Rs. 1376445 and that of the control group are Rs. 359793.36. The difference between the asset values is Rs. 1016651.64 which is significant statistically. Table 2 also divides the assets into productive and unproductive assets. The productive assets of the case group stand at Rs. 1323557.29 while that of the control group stand at Rs. 324440.36. The difference was found out to be Rs. 999116.93 and is once again statistically significant. Though a difference in case of unproductive assets is found, but it is not significant statistically.

Table 3 makes a comparison between the per capita assets of the case and control groups. Even the per capita assets of the case group are much higher. Significantly higher case group size has not been able to suppress the average per capita household assets. They remain significantly higher. The per capita assets of the case group were worth Rs. 256799.44 and of the control group were Rs. 73728.15. A difference of Rs. 183071.29 is found between the two groups and is statistically significant.

On segregation it is found that of the total case group assets, the productive assets constitute more than 96 percent of total assets. In the control group as well, the productive assets form the larger part, constituting 90.17 **percent of total control group assets.**

Table 3: Per capita assets: Case-control comparison

| | Per capita assets (Rs.) | | | Difference[a] | Standard error | Z-value |
|---|---|---|---|---|---|---|
| | Total | Case group | Control group | | | |
| Total assets | 199530.98 | 256799.44 | 73728.15 | 183071.29 | 47017.54 | 3.89* |
| Productive assets | 190484.29 | 246932.33 | 66483.68 | 180448.65 | 47037.38 | 3.84* |
| Unproductive assets | 9046.69 | 9867.11 | 7244.47 | 2622.64 | 2128.97 | 1.23 |

Source: Field survey
a Difference of weighted per capita assets is taken
Note: * indicates values significant at 1% level of significance.

The per capita productive assets when looked at separately remain significantly higher for the case group. The average per capita productive assets for the case group are Rs. 246932.33 and that of the control group are Rs. 66483.68. The difference is Rs. 180448.38 and is statistically significant. However, it is not true in case of unproductive assets. The case group holds larger unproductive assets but the difference is not significant statistically.

The assets of the case group are much higher. Can the difference be attributed to the SHG-BLP? It would be too soon to conclude. A deeper look into the data on assets reveals that, the difference in asset values is largely because of land. Two things need to be looked into. First, land owned by households in the sample is largely ancestral. Since the population being studied are the poor, they do not have access to resources to purchase an asset as expensive as land. Even nature and size of microcredit loans is too small for beneficiary households to purchase land.

Second, the value of land across different villages and also different locations within the same village varies highly. A small proportion of households in the case and control groups own land. In the case group, 28.67 percent own land, while 16 percent households in the control group own land. None of the households are earning any significant amount from rent on land or from crop activities carried out on this land. The poor are not in a position to use the land productively to create an income stream. Thus, we analyse the assets of the case and control groups, net of land in section 4.2.

4.2 Household assets (net of land): Case-control comparison

Table 4 shows a case-control comparison of total average household assets and also of productive and unproductive assets separately. The case group has a larger stock of total assets as compared to the control group.

**Table 4: Household assets (net of land): Case-control comparison**

| | Average household assets (Rs.) | | | Difference | Standard error | Z-value |
|---|---|---|---|---|---|---|
| | Total | Case group | Control group | | | |
| Total assets | 302250.01 | 322411.67 | 261926.69 | 60484.97 | 31659.51 | 1.91*** |
| Productive assets | 271918.32 | 290590.63 | 234573.00 | 56016.93 | 29680.81 | 1.89*** |
| Unproductive assets | 30331.69 | 31821.04 | 27353.00 | 4468.04 | 3654.93 | 1.22 |

Source: Field survey
Note: *** indicates values significant at 10 % level of significance.

Average total asset holding (net of land) of the case group(Rs. 322411.67) is still significantly higher than the average asset holdings (net of land) of the control group (Rs. 261926.69). The stock of both productive assets and unproductive assets of the case group is found to be larger. But the difference is found to significant only in the case of productive assets. This implies that significant increase in productive asset holdings has taken place due to loans provided by SHGs.

Table 5 highlights the per capita holdings of the case and control groups. Per capita total holdings, productive and unproductive holdings of case group are higher.

**Table 5: Per capita assets (net of land): Case-control comparison**

| | Per capita assets (Rs.) | | | Difference[a] | Standard error | Z-value |
|---|---|---|---|---|---|---|
| | Total | Case group | Control group | | | |
| Total assets | 58125.00 | 60151.43 | 53673.50 | 6477.93 | 5185.10 | 1.25 |
| Productive assets | 52291.98 | 54214.67 | 48068.38 | 6146.29 | 4935.85 | 1.25 |
| Unproductive assets | 5833.02 | 5936.76 | 5605.12 | 331.64 | 722.99 | 0.46 |

Source: Field survey
a Difference of weighted per capita income is taken.

The per capita asset holdings of the case group were Rs. 60151.43, while that of the control group were Rs. 53673.50. The difference however, is not significant statistically. When productive and unproductive assets are analysed separately, the holdings of the case group are found to be larger. On being subjected to the Z-test, the Z-values for difference in productive and unproductive assets are not statistically significant.

**5. SHG loans and asset creation: Rationale and discussion**

It is seen that the average household assets of the case group are significantly higher. Table 6 briefs the results of the previous section. The average household size of the case group is higher (5.36) than that of the control group (4.88). Even though the average household asset holding (net of land) of the case group is significantly higher than that of the control, the higher household size of the case group has suppressed the per capita asset holdings (net of land) of the case. Though they stand higher than that of the control, the difference no longer remains significant.

**Table 6: Impact of SHG-BLP on asset holding of beneficiaries: Case-control comparison**

| Variables (Rs.) | Case group | Control group | Z-value |
|---|---|---|---|
| Average household asset holding | 1376445.00 | 359793.36 | 3.29* |
| Average per capita asset holding | 256799.44 | 73728.15 | 3.89* |
| Average household asset holding (net of land) | 322411.67 | 261926.69 | 1.91*** |
| Average per capita asset holding (net of land ) | 60151.43 | 53673.50 | 1.25 |

Source: Field survey
Note: * and *** indicate values significant at 1% and 10 % levels of significance respectively

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5.1 Multiple regression

Asset creation has taken place. To analyse other determinants of asset creation, other than SHG membership, we use multiple regression analysis.

$Yi = \beta 0 + \beta 1\ X1i + \beta 2\ X2i + --- + \beta k\ Xki + ui$

Yi - Assets of the ith household

Xk - Independent variables

βs - Regression coefficients

i = 1,2, ----- 225 (sample size)

ui - Random term assumed to be independently and identically distributed with zero mean and constant variance.

A brief description of variables included in regression analysis is detailed in Table 7. These variables include human resources in the form of number of workers and educational endowment of households, employment status of households as elementary workers and artisans and craftsmen.

All these variables are expected to have an impact on economy as a whole and asset holdings in particular of households. Variables related to caste background are included to take care of any pre or post market discrimination against scheduled caste, scheduled tribe and backward class households, which are known to be subjected to numerous socio-economic discriminatory practices in the country. Social security transfers and MGNREGA dummies are also included to control the impact of such measures on economy of the households. Illness dummy is included to control the impact of adverse health status on earnings of households. Use of institutional and non-institutional credit has also been included to control the impact of loans other than SHG loans on the asset holdings of the households.

**Table 7: Description of variables used in regression analysis**

| Serial number | Variables | Definition |
|---|---|---|
| 1 | Case dummy | Dummy= 1 for SHG households; = 0 otherwise |
| 2 | Number of workers | Number of workers in a household as per principal status |
| 3 | Scheduled caste/tribe | Dummy= 1 for households belonging to scheduled caste or scheduled tribe;= 0 otherwise |
| 4 | Backward castes | Dummy= 1 for households belonging to backward caste; =0 otherwise |
| 5 | Highest education: Middle | Dummy= 1 if highest education attained by any member in household is 8th grade ; =0 otherwise |
| 6 | Highest education: Matriculation | Dummy= 1 if highest education attained by any member in household is 10th grade; =0 otherwise |
| 7 | Highest education: Above matriculation | Dummy= 1 if highest education attained by any member in household is above 10th grade; =0 otherwise |
| 8 | Social security transfers | Dummy=1 if one or more members get social security transfers such as widow or old age pension, handicap pension et cetera ; =0 otherwise |
| 9 | Elementary workers | Dummy= 1 if principal occupation of household is elementary(casual workers ready to undertake any work); =0 otherwise |
| 10 | Artisans and craftsmen | Dummy= 1 if principal occupation of household is artisan or craftsman ; = 0 otherwise |
| 11 | Illness in 30 days or chronic illness | Dummy= 1 if any member of household has fallen sick 30 days before date of survey or suffers from a chronic disease; =0 otherwise |
| 12 | MGNREGA | Dummy=1 if any member of household is participating in MGNREGA; = 0 otherwise |
| 13 | Institutional loan | Dummy=1 if household has borrowed from institutional source other than SHG loan; = 0 otherwise |
| 14 | Non-institutional loan | Dummy=1 if household has borrowed from non-institutional source ; = 0 otherwise |

Source: Self defined

This set of 14 variables is regressed on average household ownership of assets and household ownership of assets (net of land). Results for both regressions are reported in Table 8.

It is evident from Table 8 that though the impact of some variables differs amongst regressions, on the whole it suggests that human resources in the form of number of workers, their educational level and employment pattern are significant determinants of variations in assets across the sampled households. The coefficient of SHG dummy is positive and highly significant value in case of both asset regressions. This further supports our univariate comparison of assets of households across case and control groups in the previous section. This indicates robustness of our earlier results.

**Table 8: Determinants of asset holdings of households: Regression analysis**

| Dependent variables → | Average household assets | | | Average household assets (net of land) | | |
|---|---|---|---|---|---|---|
| Independent variables ↓ | Regression coefficient | t-value | P-value | Regression coefficient | t-value | P-value |
| (Constant) | 338553.23 | 0.35 | 0.72 | 67781.40 | 1.14 | 0.25 |
| Workers | 435357.21 | 2.06 | 0.04 | 39682.18 | 3.01 | 0.00 |
| Scheduled caste/ tribe | -642549.74 | -1.12 | 0.26 | 38995.99 | 1.09 | 0.28 |
| Backward caste | 943580.93 | 1.69 | 0.09 | 105001.09 | 3.02 | 0.00 |
| Highest education-Middle | -1263095.57 | -1.71 | 0.09 | 22007.37 | 0.48 | 0.63 |
| Highest education-Matriculation | -1098077.14 | -1.59 | 0.11 | 73655.32 | 1.71 | 0.09 |
| Highest education-Above matriculation | -546373.31 | -0.72 | 0.47 | 81201.90 | 1.72 | 0.09 |
| SHG membership | 1176112.70 | 2.63 | 0.01 | 66689.34 | 2.40 | 0.02 |
| Social security transfers | -526568.09 | -1.07 | 0.28 | -60481.83 | -1.98 | 0.05 |
| Elementary workers | 76420.73 | 0.17 | 0.87 | -35689.07 | -1.27 | 0.21 |
| Craftsmen and artisans | -1597540.06 | -1.99 | 0.05 | -19226.86 | -0.39 | 0.70 |
| MGNREGA | -1343532.12 | -1.04 | 0.30 | -44887.47 | -0.56 | 0.58 |
| Institutional loan | -793193.19 | -1.05 | 0.30 | 15562.38 | 0.33 | 0.74 |
| Non-institutional loan | -389216.72 | -0.86 | 0.39 | -23157.96 | -0.82 | 0.41 |
| Illness/ chronic illness | 284694.07 | 0.62 | 0.53 | 60145.05 | 2.12 | 0.04 |
| $R^2$ | 0.13 | | | 0.19 | | |
| Adjusted $R^2$ | 0.07 | | | 0.14 | | |
| Number | 225 | | | 225 | | |

5.2 Use of microcredit by SHG beneficiaries

To understand the nature of asset creation we analyse the use of microcredit. Information detailed in Table 9 reveals the use of loan. We see that on the whole, about one-third (32.58 percent) of the total loan is used for home repair, almost one-fifth, 14.5 percent and 4.43 percent is used to facilitate farm and non-farm capital expenditure respectively. A small share of 3.26 is spent on consumer durables. Thus, in all, 54.77 percent of the total loan is spent directly on asset creation. This once again supports our univariate and multivariate results. The table also reveals that one-third

**Table 9: Distribution of SHG loans on the basis of use of loan**

| Utilization of borrowing ↓ | Total | | | |
|---|---|---|---|---|
| | Total number of loans | % of total loan | Amount of loan ('000 Rs.) | %of amount |
| Capital expenditure in farm business | 27 | 7.09 | 819.00 | 14.5 |
| Capital expenditure in non-farm business | 8 | 2.10 | 250.00 | 4.43 |
| Current expenditure in farm business | 5 | 1.31 | 127.00 | 2.25 |
| Current expenditure in non-farm business | 28 | 7.35 | 617.50 | 10.93 |
| **Income generating activities** | **68** | **17.85** | 1813.50 | **32.10** |
| Medical | 25 | 6.56 | 312.50 | 5.53 |
| Daily consumption | 176 | 46.19 | 866.42 | 15.34 |
| **Survival activities** | **201** | **52.76** | 1178.92 | **20.87** |
| Consumer durables | 5 | 1.31 | 184.00 | 3.26 |
| Education | 10 | 2.62 | 209.70 | 3.71 |
| Repayment of loan | 7 | 1.84 | 100.50 | 1.78 |
| Marriage | 20 | 5.25 | 295.00 | 5.22 |
| Home repair | 69 | 18.11 | 1840.80 | 32.58 |
| Miscellaneous | 1 | 0.26 | 27.00 | 0.48 |
| **Others** | **112** | **29.4** | 2657.00 | **47.03** |
| Total | 381 | 100 | 5649.42 | 100 |

Source: Field survey

(32.10 percent) of the loan is used to fiancé income generating activities and one-fifth (20.87 percent) is used to meet survival needs. This is expected to impact income and consumption of households, which is in turn expected to impact assets. If the investment in income generating activities is successful, it is expected to increase income, consumption and assets. Also expenditure to meet survival needs is expected to augment productivity and reduce vulnerability of poor households. This may lead to higher income, consumption and thus assets. However, to conclude that this shall impact assets positively is pre-mature. It requires measurement of income and consumption of the sampled group, which is beyond the purview of the present paper.

From the above discussion it is safe to conclude that SHG-BLP has led to asset creation amongst beneficiary households. Both univariate and multivariate analysis support our hypothesis. Also the detailed break-up of the use of micro-credit shows that almost 55 percent of loan is used to directly create asset.

### 6. Summary

The present paper has been devoted to measure the impact of SHG-BLP on asset building amongst beneficiary households. To test the same we hypothesized that the SHG-BLP leads to assets building amongst beneficiary households. The methodology used by NSS to measure assets of households is used. Case-control comparison of economy of households reveals that the assets of the case group are significantly higher than those of the control. The same is validated through multiple regression analysis. However, multivariate analysis shows that human resources in the form of number of workers, their educational level and employment pattern are significant co-determinants of variations in assets across the sampled households. Also the use of microcredit shows that more than half the loan is used to build asset. This further supports our finding that microcredit leads to asset creation.

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# 'Developing MSMEs through Development Centers and Collaborations'

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**Abstract**

The Micro, Small and Medium Enterprises (MSMEs) sector has emerged as a highly vibrant sector in Indian economy during five decades. The MSMEs play fundamental role in providing better employment opportunities than large industries. These help in industrialization in rural and backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth. The MSMEs contribute enormously to the socio economic development of the country. There is a network of MSMEs Development Institutes, Training Centers, Technology Development Centre, Tool Rooms etc. for assistance/consultancy to prospective entrepreneurs and existing units for quality control, up gradation, export promotion, ancillary development, intensive technical assistance, coordination with DICs etc. so that the operations of MSMEs may be made more effective. In the present paper an attempt is made to analyze the performance of testing centers, stations, tool rooms and technology development institutes and various types of technology programs for development of MSMEs. Besides this, a synopsis is made on the items exclusively reserved for manufacturing of MSMEs, the top ten leading states in terms of employment and number of enterprises in these states. The present paper is prepared with descriptive research approach and secondary sources are tapped for data collection.

## I. Introduction

The main objectives for setting up the Public Sector Enterprises as stated in the Industrial Policy Resolution of 1956 were to help in the rapid economic growth and industrialization of the country and create the necessary infrastructure for economic development; to earn return on investment and thus generate resources for development; to promote redistribution of income and wealth; · to create employment opportunities; to promote balanced regional development; to assist the development of small-scale and ancillary industries; and to promote import substitutions, save and earn foreign exchange for the economy. But the Micro, Small and Medium Enterprises (MSMEs) sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last five decades. The MSMEs play a very crucial role in providing large employment opportunities than large industries and it also helps in industrialization of rural & backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth. These MSMEs contribute enormously to the socio economic development of the country.

The Micro, Small and Medium Enterprises Development (MSMED) Act was notified in 2006 to address policy issues affecting MSMEs as well as the coverage and investment ceiling of the sector. The Act seeks to facilitate the development of MSME and also enhance their competitiveness. It provides the first-ever legal framework for recognition of the concept of "enterprise" which comprises both manufacturing and service entities. It defines medium enterprises for the first time and seeks to integrate the three tiers of these enterprises, namely, micro, small and medium. The Act also provides for a statutory consultative mechanism at the national level with balanced representation of all sections of stakeholders, particularly the three classes of enterprises and with a wide range of advisory functions. The main features of the Act are:- Establishment of specific funds for the promotion and development, Enhancing competitiveness of these enterprises, Notification of schemes/ programmes for this purpose, Progressive credit policies and practices, Preference in Government procurements to products and services of the micro and small enterprises, Effective mechanisms for mitigating the problems of delayed payments to micro and small enterprises and Assurance of a scheme for easing the closure of business by these enterprises.

The primary responsibility of promotion and development of MSMEs is of the State government. However, the Government of India, supplements efforts of the State governments through various initiatives. The role of the Ministry of MSME and its organizations is to assist the States in their efforts to encourage entrepreneurship, employment and livelihood opportunities and enhance the competitiveness of MSMEs in the changed economic scenario. The schemes/programmes undertaken by the Ministry and its organizations seek to provide:-

i) Adequate flow of credit from financial institutions/banks;
ii) Support for technology up gradation and modernization;
iii) Integrated infrastructural facilities;
iv) Modern testing facilities and quality certification;
v) Access to modern management practices;
vi) Entrepreneurship development and skill up gradation through appropriate training facilities;
vii) Support for product development, design intervention and packaging;
viii) Welfare of artisans and workers;
ix) Assistance for better access to domestic and export markets and
x) Cluster-wise measures to promote capacity building and empowerment of the units and their collectives.

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**II. Review of Literature**

**Irvin and Scott (2006)** explored the barriers in raising bank finance being faced by entrepreneurs and found key differences in personal characteristics in terms of the specific barriers faced by SMEs in seeking bank finance and the implications of these differences are examined. **Deakins and North (2008)** have done in-depth study into demand and supply side issues relating to access to bank finance by SMEs. They found from a survey of 51 SMEs that maximum were facing difficulty in raising finance. **Usman and Gullani (2012)** evaluated the financing practices being adopted/ followed by new or existing SMEs. They found that personal savings is the most accessible sources of finance to SMEs in the State and the awareness of MFIs by SMEs in the state is poor. **Venkatsh and Lavanya (2012)** used a new concept i.e Green Finance. They suggested that government can help SME financing by putting in place financial infrastructure geared to better generation and dissemination of information about the creditworthiness of SMEs. They found that innovative financing schemes for SMEs like leasing, factoring, venture capital, microfinance, securitization, and e-finance were helpful for the promotion and Growth of MSME.

**Jain (2012)** evaluated the challenges and prospects for future growth and development in the Textile Industries (MSMEs) of Panipat region in Haryana and found that government policies are not adequate to meet the requirement of the new entrepreneurs. It was also revealed that shortage of power supply was the biggest issue for the MSMEs in the Panipat Region which leads to increase in the cost of production and decrease in the inventory turnover ratio. **Pratihar and Munda (2013)** analyzed the position of Odisha state to find out the areas of strength, weakness and opportunities to make MSME sector more effective and follow the path of accelerated growth. The role of commercial banks for the development of MSME sector in the state is immense and therefore they understand the effectiveness of finance for the growth of this key sector in the state. They found that most of the weavers belong to other back ward class (OBC), there were limitations in getting the required assistant from government administration which is dominated by higher caste. **Chaudhary et all (2014)** was to enlighten the growth and importance of SMEs, financing of SMEs, hurdles in SME sector and to analyze whether existing credit flow system is satisfactory or not. This study finds that the process of SMEs' financing is very well carried out by the bank officials and customers are very much satisfied by its lending and other services. The primary data collected with the help of questionnaire by means of personal interview has been analyzed with the help of statistical tools. In order to group the collected primary data, most commonly used software like SPSS has been used.

**III. Objectives of the Study:-**

1. To analyze the performance of TC/TS, Tool rooms and technology Development Institutes.
2. To spot the position of training program for MSME development.
3. To understand on the status of MSME in terms of numbers, the products reserved and its employability.

**IV. Research Methodology:**

The present research paper is descriptive one and the data is collected from secondary sources, like-Census reports, Five year plans, Annual reports of MSME, Government documents, Research papers, Magazines and Newspapers. The tabular presentation of data is made besides proper analysis.

**V. Analysis and Discussion:**

The MSMEs are complementary to large industries as ancillary units and this sector contributes enormously to the socio-economic development of the country.

1. The MSMEs in India can be classified into the following forms considering different basis.

**A. Registered Sector:** Enterprises registered with District Industries Centers in the State/UTs., Khadi and Village Industries Commission/ Khadi and Village Industries Board, Coir Board as on 31.03.2007 and factories under the coverage of section 2m(i) and 2m(ii) of the Factories Act, 1948 used for Annual Survey of Industries having investment in plant & machinery up to Rs.10 crore, were considered to belong to registered sector.

**B. Unregistered Sector:** All MSMEs engaged in the activities of manufacturing or in providing/ rendering of services, not registered permanently or not filed Entrepreneurs Memorandum Part-II/ [EM-II] with State Directorates of Industries/District Industries Centers on or before 31-3-2007 are called unregistered MSMEs. Those enterprises that are temporarily registered on or before 31-3-2007 as also the units that are temporarily or permanently registered or filed EM-II after 31-3-2007 till the date of Sample Survey conducted as part of Fourth All India Census of MSMEs 2006-07, were treated as unregistered MSMEs. All unregistered MSMEs, covering both manufacturing and services sectors, constituted unregistered sector.

**C. Small Scale Industrial Unit (SSI):** An industrial undertaking in which the investment in fixed assets in plant & machinery, whether held on ownership terms, or on lease, or by hire purchase, does not exceed Rs.100 lakh as on 31-03-2001 is to be treated as a Small Scale Industrial Unit.

D. Micro, Small and Medium Enterprises (MSME): MSME Sector consists of any enterprise, whether proprietorship, Hindu undivided family, association of persons, cooperative society, partnership or undertaking or any other legal entity, by whatever name called, engaged in production of goods pertaining to any industry specified in the first schedule of Industry Development & Regulation Act, 1951 and other enterprises engaged in production and rendering services, subject to limiting factor of investment in plant and machinery and equipments respectively as noted below:

For manufacturing sector, an enterprise is classified as:

a) Micro enterprise, if investment in plant and machinery does not exceed twenty five lakh rupees;
b) Small enterprise, if investment in plant and machinery is more than twenty five lakh rupees but does not exceed five crore rupees; or
(c) Medium enterprise, if investment in plant and machinery is more than five crore rupees but does not exceed ten crore rupees;
In case, enterprise is engaged in providing or rendering of services, it is classified as:
(a) Micro enterprise, if investment in equipment does not exceed ten lakh rupees;
(b) Small enterprise, if investment in equipment is more than ten lakh rupees but does not exceed two crore rupees; or
(c) Medium enterprise, if investment in equipment is more than two crore rupees but does not exceed five crore rupees.

**2. Position of Top Ten States in terms of Enterprises and Employment level**

The ten leading States, in terms of enterprises, are Uttar Pradesh (44.03 lakh), West Bengal (36.64 lakh), Tamil Nadu (33.13 lakh), Maharashtra (30.63 lakh), Andhra Pradesh (25.96 lakh), Kerala (22.13 lakh), Gujarat (21.78 lakh), Karnataka (20.19 lakh), Madhya Pradesh (19.33 lakh) and Rajasthan (16.64 lakh). The ten leading States, in terms of employment, are Uttar Pradesh (92.36 lakh), West Bengal (85.78 lakh), Tamil Nadu (80.98 lakh), Andhra Pradesh (70.69 lakh), Maharashtra (70.04 lakh), Kerala (49.62 lakh), Gujarat (47.73 lakh), Karnataka (46.72 lakh), Madhya Pradesh (33.66 lakh) and Odisha (33.24 lakh).

The ten leading industries, in terms of enterprises, (as per National Industrial Classification 2004 at two digit level) are Retail Trade except for Motor Vehicles and Motorcycles; Repair of Personal and Household Goods (144.15 lakh), Manufacture of Wearing Apparel; Dressing and Dyeing of Fur (31.65 lakh), Manufacture of Food Products and Beverages (25.12 lakh), Other Service Activities (22.43 lakh), Other Business Activities (13.64 lakh), Hotels and Restaurants (13.18 lakh), Sale, Maintenance and Repair of Motor Vehicles and Motorcycles; Retail Sale of Automotive Fuel (12.92 lakh), Manufacture of Furniture & Manufacturing not elsewhere classified (11.61 lakh), Manufacture of Fabricated Metal Products, except Machinery and Equipment (8.42 lakh) and Manufacture of Textiles (8.42 lakh).

The ten leading industries in terms of employment, (as per National Industry Classification 2004 at two digit level) are Retail Trade except for Motor Vehicles and Motorcycles; Repair of Personal and Household Goods (245.48 lakh), Manufacture of Food Products and Beverages (62.99 lakh), Manufacture of Wearing Apparel; Dressing and Dyeing of Fur (60.06 lakh), Other Service Activities (37.65 lakh), Manufacture of Textiles (35.91 lakh), Hotels and Restaurants(33.92 lakh), Sale, Maintenance and Repair of Motor Vehicles and Motorcycles; Retail Sale of Automotive Fuel (30.03 lakh), Manufacture of Furniture & Manufacturing not elsewhere classified (28.19 lakh), Other Business Activities (27.67 lakh), Education (27.26 lakh).

**3. Reservation/De-Reservation of Products for Manufacture in MSEs Sector:**

The Policy of Reservation of Products for Exclusive Manufacture in SSI (now MSEs) was initiated in 1967 with the objective of achieving socio-economic development, through development and promotion of small units all over the country. This was expected to result in countering the challenges of regional industrial imbalances, employment generation through self-employment ventures, increased productivity, etc. However, with the gradual opening up of the economy, de-reservation had to be resorted to for providing opportunities to MSEs for technological up gradation; promotion of exports and achieving economies of scale. Accordingly, the MSEs are being encouraged to modernize and enhance their competitiveness for facing the challenges arising out of liberalization and globalization of the economy.

The items are reserved/de-reserved in accordance with Section 29(B) of the Industries (Development & Regulation) Act, 1951, which, inter-alia, provides for the constitution of an Advisory Committee headed by the Secretary (MSME). The Advisory Committee makes its recommendations for reservation/de reservation in light of the factors like economies of scale; level of employment; possibility of encouraging and diffusing entrepreneurship in industry; prevention of concentration of economic power and any other factor which the Committee may think appropriate. At present, only 20 items are reserved for exclusive manufacture in micro and small enterprise sector. A list of items reserved for exclusive manufacture in micro and small enterprises sector is as: Pickles and Chutneys, Bread, Mustard Oil, Ground Nut Oil, Wooden Furniture and Fixtures, Exercise Books and Registers, Wax Candles, Laundry Soaps, Safety Matches, Fire Works, Agarbatties, Glass Bangles, Steel Almirah, Rolling Shutters, Steel Chairs-All types, Steel Tables-All other types, Padlocks, Stainless Steel Utensils and Domestic Utensils-Aluminum.

**4. MSME Tool Rooms, Technology Centers, Technology Stations and Technology Development Institutes**

a. The organization has a network of 30 MSME Development Institutes (MSME - DIs); 28 Branch MSME-DIs; 4 MSME Testing Centers (MSME-TCs); 7 Field Testing Stations (MSME-TSs); 18 Autonomous Bodies – which include 10 MSME Tool Rooms (MSME-TRs); 6 MSME Technology Development Centres (MSME-TDCs) and 2 MSME Central Footwear Training Institutes (MSME-TDC-CFTIs). There are also 2departmental Training Institutes (MSME-TIs).

b. MSME Development Institutes (MSMEDIs): There are 30 MSME Development Institutes (MSME – DIs) and 28 Branch MSME Development Institutes set up in the State capitals and other industrial cities all over the country. The main activities of these institutes are as:

Assistance/Consultancy to Prospective Entrepreneurs, Assistance/Consultancy rendered to Existing Units, Preparation of State Industrial Profiles, Preparation/Update of District Industrial Potential Surveys, Project Profiles, Entrepreneurship Development Programmes Motivational Campaigns, Production Index, Management Development Programmes, Skill Development Programmes, Vendor Development Programmes for Anciliarisation, Quality Control & Up gradation, Export Promotion, Ancillary Development, Common Facility Workshop/Lab, Preparation of Directory of Specific Industry, Intensive Technical Assistance, Coordination with DICs, Linkages with State Government Functionaries, Market Surveys, Promotion of handholding programme called Rajiv Gandhi Udyami Mitra Yojana (RGUMY) for micro & small entrepreneurs, National Manufacturing Competitiveness Programme (NMCP), Cluster Development Programme, Public Procurement Policy. Besides, the Institutes reorient their activities in accordance with the policy initiatives taken by the Ministry of MSME, Government of India from time to time for promotion and development of MSMEs.

c. MSME Tool Rooms (MSME-TRs): The 10 MSME-TRs set up under the Indo-German and Indo-Danish collaborations assist MSMEs in technical up gradation and provide good quality tooling through designing and producing tools, moulds, jigs & fixtures, components etc. These also provide training and consultancy in the area of tool and die making.

d. MSME-Technology Development Centre (MSME-TDCs) are product-specific Centres for addressing product specific problems and rendering technical services, developing and upgrading technologies and manpower development & training in respective product groups like Foundry & Forging; Electronics; Fragrance & Flavor; Sport Shoes; Electrical Measuring Instruments and Glass.

e. MSME Testing Centre (MSME-TCs) at Chennai, Delhi, Kolkata and Mumbai have facilities for quality up gradation, training/ consultancy in testing, quality control, quality management, process quality control systems, etc. The 7 Field Testing Stations (MSME-TSs) provide focused testing services in the cities of Bengaluru, Bhopal, Ettumanur, Jaipur, Hyderabad, Kolhapur and Puducherry which have significant concentration of MSMEs.

f. MSME Technology Development Centres (Central Footwear Training Institutes) (MSME-TDC-CFTI) at Agra and Chennai are engaged in developing designs and development of footwear and also providing training for skill development in footwear industry.

g. MSME - Training-cum-Product Development Centres (TPDCs) for Agro and Food Processing Industries have been set up in the campus of MSME – Development Institutes at Ludhiana, Kanpur, Indore and Guwahati.

## 5. MSME Tool Rooms, Technology Development Center and Training Institutes

The 10 MSME-TRs set up under the Indo-German and Indo Danish collaborations, assist MSMEs in technological up gradation. These tool rooms provide good quality tooling through design and production of tools, moulds, jigs & fixtures, components etc. These Tool Rooms also provide training and consultancy in the area of tool engineering. The name and location of the Tool Rooms are as under: Central Tool Room at Ludhiana, Indo German Tool Room at Ahmadabad, Indore and Aurangabad, Central Tool Room & Training Centre at Kolkata and Bhubaneswar, Indo Danish Tool Room at Jamshedpur, Central Institute of Hand Tools at Jalandhar, Central Institute of Tool Design at Hyderabad and Tool Room & Training Centre at Guwahati.

The main objective of the Technology Development Centers is to develop human resources for meeting the requirements for transfer of technology in respective products fields. These Centers are also running training courses as per the requirements of the industry. These Tool Rooms & Training Centers provide production, training and consultancy services in the areas of tool engineering i.e. facilities for production of tools, moulds, dies, jigs & fixtures, etc. and providing skilled manpower to industry. These services help the industry become more productive and competitive. These Tool Rooms apart from conducting various short term courses and vocational training programmes for school dropouts, also organize different long-term courses such as 'Post-graduate Diploma in Tool Design and CAD/CAM'. They have achieved nearly 100% placement for the trainees of their long- term courses in different industries.

The MSME – Technology Development Centre (Central Footwear Training Institutes) at Agra and Chennai respectively are involved primarily in human resource development for footwear and allied industry by conducting various training programmes and related activities. One of their premier courses is Two Year Diploma in "Footwear Manufacturing and Design" which is accredited with Textile Institute, U.K. The Institutes also extend Common Facility Services to the local MSMEs with their well equipped infrastructural facilities and render consultancy services in the field of footwear & allied industries.

**Table 1**

**Achievements of MSME -Tool Rooms, Technology Development Centers and Training Institutes during 2013-14 (up to 31st March, 2014)**

| | TRs | TDCs | TIs |
|---|---|---|---|
| Revenue Target 2013 - 2014(Rs in Lakh) | 16500 | 2675 | 742 |
| Revenue Earned (Rs in Lakh) | 14914 | 2759 | 695.37 |
| No. of units Serviced | 17733 | 6247 | 838 |
| No. of Trainees (long term) | 16064 | 1712 | 434 |
| No. of Trainees(short term) | 72560 | 16182 | 9516 |
| No. of SC/ST Trainees | 25682 | 7755 | 3806 |
| No. of OBC Trainees | 13955 | 1713 | 1472 |
| No. of Minority Trainees | 2406 | 19 | 269 |
| No. of Women Trainees | 9210 | 2184 | 2435 |
| No. of Physically handicapped Trainees | 89 | 4 | 1 |

It is interpreted that Revenue target, earned, No. of units serviced and no. of Trainees is more in Tool rooms as compare to Technology Development Center and Training Institutes.

### 6. MSME Testing Center (TCs) and MSME Testing Stations (TSs)

a. MSME -Testing Centers (TCs): The office of DC (MSME) is operating four MSME -Testing Centers (formerly RTCs) located at New Delhi, Mumbai, Chennai and Kolkata. The MSME – Testing Centers provide testing and calibration facilities to industries in general and Micro, Small & Medium Enterprises in particular for raw materials, semi-finished and finished products, manufactured by them. The centers are equipped with the state-of the- art indigenous and imported equipments in the disciplines of Chemical, Mechanical, Metallurgical and Electrical Engineering to undertake Performance test, Type test and Acceptance test of semi-finished, finished products etc. The centers also undertake calibration works for Measuring Instruments and Equipment conforming to international standards. These centers are accredited by internationally recognized National Accreditation Board of Testing & Calibration laboratories (NABL) certification as per ISO (17025).

b. MSME -TESTING STATIONS (TSs): In order to provide testing facilities in the areas with cluster of industries and some strategic areas, the Government of India have set up MSME- Testing Stations (formerly FTSs) at Jaipur, Bhopal, Kolhapur, Hyderabad, Bengaluru, Puducherry and Ettumanur. These Testing Stations extend facilities for testing of various products viz. chemicals, dye-stuffs, lamps, rubber products, castings and forgings, paints and varnishes, domestic electrical appliances, general engineering etc.

These Testing Stations in fact act as extension of the MSME- TCs thereby serving the needs of the industries situated in far flung areas. The MSME- Testing Stations are regularly modernizing/upgrading their facilities to cater to the need of industries in general and Micro, Small & Medium sector in particular, situated in their locality. For the year 2013-14, an amount of Rs 600 lakh has been allocated for day to day functioning and modernization of MSME -Testing Centers / Stations.

**Table: 2**
**Performance of MSME-TCs/TSs (up to 31st March, 2014)**

| Year | Revenue Earned(Rs in lakh | Revenue Earned(Rs in lakh | Recurring Expenditure (Rs in lakh) | Recurring Expenditure (Rs in lakh) | No. of Jobs Completed | No. of Jobs Completed | No. of MSMEs Benefitted | No. of MSMEs Benefitted |
|---|---|---|---|---|---|---|---|---|
| | TCs | TSs | TCs | TSs | TCs | TSs | TCs | TSs |
| 2007-08 | 326.06 | 106.81 | 430.40 | 111.84 | 12214 | 14261 | 2428 | 4662 |
| 2008-09 | 348.11 | 122.91 | 568.32 | 175.21 | 14013 | 21916 | 2608 | 5844 |
| 2009-10 | 387.96 | 137.04 | 638.37 | 209.92 | 14497 | 22471 | 6805 | 8163 |
| 2010-11 | 389.77 | 175.12 | 701.76 | 229.10 | 13981 | 26488 | 6304 | 8497 |
| 2011-12 | 425.28 | 213.37 | 727.38 | 187.34 | 19436 | 24542 | 7302 | 8906 |
| 2012-13 | 468.23 | 249.07 | 775.41 | 214.91 | 15472 | 17123 | 5602 | 8627 |
| 2013-14 | 561.69 | 275.90 | 787.70 | 238.40 | 14135 | 17545 | 6657 | 8155 |

(Source: MSME Report 2013-14)

It is visible from the table Revenue Earned in case of TCs and TSs are showing the increasing Trend from the year 2007 to 2014, Recurring Expenditure in TCs are also increasing in that period but in TSs it is increasing up to 2010, then decreasing in 2011 and then increasing from 2012 to 2014, Number of jobs in TCs are increasing up to 2010, decreasing in 2011and then increasing in 2012 and then showing a declining trend while in case of TSs it is increasing up to 2011 and then declining. Number of MSMEs benefitted from TCs is showing many up and down from 2007 to 2014 while TSs are increasing up to 2012 and then decreasing to 2014.

### 7. Training Programmes (IMCs, ESDPs, EDPs, BSDPs and MDPs)

The MSME-DIs is conducting varieties of training programmes for first generation potential entrepreneurs, existing industrial workers and supervisory personnel. The ultimate aim is to promote the MSME sector of the country by inculcating entrepreneurial culture in the respective area as well as to enhance productivity of the existing industries of that State/Area. It also provides various common facilities to existing industries of the area and helps them in improving the techno managerial skills.

(i) Industrial Motivation Campaigns (IMCs): Industrial Motivation Campaigns, of one day duration, are organized to identify and motivate traditional /non-traditional entrepreneurs having potential for setting up Micro or Small Enterprises so as to lead them towards self employment. Emphasis is being given to organize the maximum number of programmes in rural/ remote areas particularly for weaker sections of the society. The 2711 IMCs have been conducted up to March 2014 to motivate 178464 persons.

(ii) Entrepreneurship Development Programmes (EDPs): Entrepreneurship Development Programmes are being organized as a regular training activity to cultivate the latent qualities of youth by enlightening them on various aspects that are necessary to be considered while setting up Micro, Small & Medium Enterprises. These programmes are conducted generally for technicians /artisans for motivating them towards self-employment. The course contents of such Entrepreneurship Development Programmes are so designed as to provide useful information on product /process design, manufacturing practices involved, testing and quality control, selection and usage of appropriate machinery and equipments, project profile preparation, marketing avenues/techniques, product / service pricing, export opportunities, infrastructure facilities available, finance and financial institutions, cash flow, etc. No participation fee is charged from SCs/STs. Only 50% fee is charged from Women and Physically handicapped participants. A stipend of Rs. 125 /- per week per candidate is provided to a person belonging to SC/ST, women or physically handicapped categories in the stipendiary programmes. Emphasis is being given to organize special programmes in rural areas particularly for weaker sections of the society. During the year, 17904 persons have participated in 787 EDPs conducted for providing training up to March, 2014.

(iii) Entrepreneurship-cum-skill Development Programmes (ESDPs): Comprehensive training programmes are organized to upgrade existing skills and to create new skills in workers and technicians of existing units and educated unemployed youth by organizing various technical training courses for them. The basic objective has been to provide training to unskilled/semi-skilled workers engaged in MSE sector and to equip them with better and improved techno-managerial skills of production. Emphasis is being made to organize maximum programmes in rural areas particularly for weaker sections of society.

(iv) Programmes so far organized, interalia, include Basic Turning, Machining Grinding, Welding/Fabrication Skills, Operation of CNC Machine Tools, Herbal Cosmetics, High Fashion Garments, Hosiery, Food & Fruit Processing industries, Information technology, Hardware Maintenance, Soap and Detergents, Leather Products, Jute/Rexene Bags, , DTP & Screen Printing, Servicing of House Hold Electrical Appliances and Electronic Gadgets, Engineering Plastics, Mobile Repairing, Webpage Designing, CAD/CAM etc. No participation fee is charged from SCs/ STs. Only 50% fee is charged from Women and Physically handicapped participants. A stipend of Rs. 125 /- per week per candidate is paid to a person belonging to SC/ST, women or physically handicapped categories in the stipendiary programmes. A 2216 ESDPs have been conducted for providing training to 50950 persons up to March 2014.

(v) Management Development Programmes (MDPs): The basic objective of imparting training in management subjects is to improve the MSMEs in the decision-making and in enhancing productivity/ profitability. Entrepreneurs and their supervisory and managerial staff are trained so that they can improve decision making and enhance productivity & profitability of MSMEs. The 12249 persons have been benefited through 529 programmes conducted up to March, 2014.

(vi) Officers Training Programmes within the O/o DC (MSME): MSME-DO plays a vital role in the development of Micro, Small & Medium sector in India. It is actually engaged in developing new and existing Micro, Small and Medium Entrepreneurs by providing training, extension service, common facility workshop and Hi-tech technological inputs and facilities for preparing tools, moulds, jigs, fixtures etc. through modern tool rooms and development institutes spread across the country. It has excellent technical officers and staff for imparting Entrepreneurship skills, management training, and technical training in all trades pertaining to MSME sector. For efficient working of the organization, there exists a continuous need for improving the performance of MSME-DO officers and staff by giving appropriate training to them. Accordingly, IC&C division arranges various In-Country training programmes for MSME-DO officials every year thus enriching their knowledge and skills. On an average about 300 officials are trained every year. It is against this background that there exists a continuous need for improving the performance of staff and officers of MSME-DO by giving appropriate training to them. Accordingly, DC office arranges In-country training to MSMEDO officers for enriching their knowledge. A total of 327 officers (including 8 officials from NE region and 11 women officials) have attended various training programmes at different training institutes situated in different parts of the country during 2013-14. The total expenditure incurred is Rs. 1.00 crore. It is expected to provide training to 300 MSME-DO officials during 2014-15.

(vii) Export Promotion (Training Programmes on Packaging for Exports):To educate MSE Entrepreneurs about the scientific packaging techniques, latest design of packaging technology, improve their packaging standards and to highlight the importance of packaging in marketing, Office of DC (MSME) has been organizing specialized training programmes on packaging for exports for MSE units through field offices i.e. MSME-DIs in collaboration with Indian Institute of Packaging (IIP), Mumbai and other such Institutes since the year 1979. The training programmes are being organized for one, two and three days' duration as per the need and concentration of MSMEs.

As the evaluation study of Export Promotion Scheme for its continuation in the 12th Five Year Plan has been under way, no training programmes were conducted during 2013-14. It is planned to organize 40 one-day, two days & three days training programmes on packaging for exports through MSME-DIs in 2014-15. It is also planned to conduct 02 training programmes on export procedures & documentations for MSME-DO officers and one day workshop for MSME exporters/units. Women, SC&ST and Physically Handicapped participants are exempted from payment of participation fee for attending these training programmes on packaging for exports. All existing and potential entrepreneurs from Micro, Small & Medium Enterprises are eligible for training under this scheme.

(viii)Vendor Development Programme (VDPs) for Ancilliarisation: The Vendor Development Programmes (VDPs) are being organized by MSME-DIs in every corner of the country to provide common platform for MSEs as well as large public sector institutions to interact with each other with a view to identifying emerging demands of the buyer organizations, while simultaneously providing an opportunity for displaying the capabilities of the MSEs and their industrial ventures. Such programmes have proved to be of immense use in locating suitable entrepreneurs by a number of buying organisations including the Public sector enterprises, various wings of Defence, Railways and others in indigenous a number of products which hitherto have been imported at a colossal cost.

Two types of VDPs' are being organized by MSME-DIs', National Level VDPs-cum- Exhibitions (NVDP) and State level VDPs (SVDP). In NVDPs, large scale organizations such as BEL, BHEL, TELCO, BSNL, IOC, NHPC, NTPC etc. interact with MSEs in establishing potential vendors. An exhibition is also organized for displaying the products of MSMEs (sellers) and requirement of large scale organizations (Buyers). Souvenir is published containing details of participants after every NCDP.

In SVDPs, only one or two large scale buying organizations functioning in the State participate and interact with SMEs (sellers) in the Buyer-Seller Meets. NVDPs are organized generally from 2 to 3 days and SVDPs' for one day. All Micro, Small, Medium and Large Enterprises can participate in the Vendor Development Programmes. VDPs are also aimed to create awareness on Public Procurement Policy to make SME units understand the requirements of goods/services for various CPSUs and to display the strength of SME units in the form of exhibition. In view of this, VDPs help to achieve the objective of faster and inclusive growth, expanding production in a regionally balanced manner and in generating widely dispersed employment. During 2013-14, 50 Nos. of National Level VDPs and 299 Nos. of State Level VDPs have been organized by MSME-DIs throughout the country an expenditure of Rs. 375 Lakh.

**VI. Conclusion:**

The MSMEs play a very crucial role in providing large employment opportunities than large industries and it also helps in industrialization of rural & backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth. The Uttar Pradesh is top most state in terms of number of enterprises and employment while Rajasthan is the lowest in number of enterprise and Odisha in Employment. There are 20 items which are exclusively reserved for manufacturing of MSME. Ten tool rooms are established at different states in India and the performance of testing center and stations and technology development institutes are continuously increasing from 2007 to 2014 and various types of training programs recognized for development of first generation Entrepreneur and development of MSMEs.

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# The Dynamic Relationship Between Stock Return, Trading Volume And Volatility In Indian Stock Market

***Ms.Suman Gulia**

**Abstract**

This study investigates the dynamic relationship between stock return, trading volume and volatility in Indian stock market. In addition, it reveals the nature and direction of this relationship. Therefore, several tests were utilized to include: Bi-variate regression model, vector error correction model (VECM), pair wise Granger causality, Johansen's co- integration tests and Augmented Dickey Fuller test. The empirical results show that there is no significant relationship between trading volume and stock return on the sub-index level which shows a significant relationship between trading volumes and return volatility. Johansen's co- integration analysis demonstrates that stock return is co-integrated with the trading volume indicating long-run equilibrium relationship. VECM provides evidence of long-run causality from return to trading volume. Finally, pair wise Granger causality test reveals that past values of stock return were useful in predicting trading volume in Indian stock market. The study concludes that stock price changes in any direction have informational content for upcoming trading activities.

**Keywords:** Stock Return, Trading Volume, VECM, Pair wise Granger Causality Test.

## Introduction

Trading volume and volume changes mainly reflect the available set of relevant information in the market. Unlike stock price and return, however, a revision in investors' expectations always leads to an increase in trading volume which therefore reflects the sum of investors' reactions to news. Various studies reported that there are significant relationship between volume and stock price movement and volatility, due to the fact that trading volume is a source of risk because of the flow of information. For example, Starks (1998) found that volume led stock price changes in four out of the six emerging markets. There are many reasons why traders pay attention to trading volume. Theoretically, low volume means that the market is illiquid; this also implies high price fluctuation. On the other hand, high volume usually implies that the market is highly liquid, resulting in low price variability. This also reduces the price effect of large trades. In general, with an increase in volume, broker revenue will increase, and market makers have greater opportunity for profit as a result of higher turnover. Many researchers have been performed worldwide on different stock markets, especially in the USA, to investigate the relationship between stock return/price and trading volume. Karpoff (1987) summarize importance of understanding this relationship as the following: First, it helps predict various volume-price/return relations that depend on the level of information and the extent to which market prices/volumes convey this information. Second, the price/return-volume relation is important for event studies that use a combination of price and volume data from which to draw inferences and will increase the power of these tests.

## Review of Literature:

Smirlock and Starks (1988) examine empirically, the lagged relationship between absolute price changes and volume in equity markets and investigate the implications of this relationship for the microstructure of these markets. Using Granger causality tests their results indicate that there is a significant causal relationship between absolute price changes and volume at the firm level.

**Bauer and Nieuwland (1995)** try to investigate this issue by using daily stock return and volumes for 30 stocks listed in Frankfurt stock market in Germany. They find that trading volume has exploratory power and can be used as a proxy for information arrival.

**Starks (1998)** study the relationship between trading volume and stock return in Latin America's stock markets. Using monthly index data, they document a positive relation between volume and both the magnitude of price change and price change itself. They also apply vector autoregressive model to test for Granger-causality between price changes and trading volume. Their findings show a unidirectional relationship where trading volume changes lead to price changes but not the opposite.

**Leon (2007)** examines the relationship between trading volume and stock returns volatility in the regional stock market of the West African Economic and Monetary Union called the Bourse Regionale des Valeurs Mobilieres (BRVM). His finding reveals a one-way causality running from trading volume to stock returns volatility regardless of the measures of volatility used.

**Mubarik, and Javid (2009)** used the ARCH and the GARCH-M models to test the relationship between return, volatility and trading volume of Pakistan stock market. Their results showed a significant relationship between trading volume and return volatility. In addition, they found a significant effect of the previous day trading volume on the current return

Bahador and Jandaghi (2011) investigate the empirical relationship between the stock exchange indices and turnover volume in the Tehran Stock Exchange. Using monthly indices, value and turnover for the period from 2003 to 2009, they can prove that there is positive relationship between exchange turnover value and stock exchange indices in the Tehran Stock Exchange.

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**Research Methodology:**

**Objectives Of Study:**

1. There is significant relationship between trading volume and volatility,
2. There is significant relationship between trading volume and return volatility
3. There is correlation between trading volume and stock return.
4. There is causality relationship between the trading volume and stock return through granger causality test.

**Hypotheses:**

**H01:** There is no significant relationship between trading volume and volatility.

**H02:** There is no significant relationship between trading volume and return volatility

**H03:** There is no correlation between trading volume and stock return.

**H04:** There is no casual relationship between the trading volume and stock return through ganger causality test

DATA:

The sample consists of trading data and sub-index value that cover the period from July 2008 until the end of December 2013. It takes into consideration the change in calculation of indices by changing the base value from 100 to 1000 as of 1 January 2005. Daily data were retrieved from Indian Stock Exchange web site: http://www.nse.com, http://www.bse.com

**DATA ANALYSIS AND HYPOTHESES TESTING**

Table 1 displays the descriptive statistics to include the mean, median, maximum, minimum, standard deviation, skewness and kurtosis and Jarque Bera (JB) test of normality. It's clear that return mean was negative with high volatility around the mean. Return series was skewed to the left and the kurtosis was higher than 3 reflecting a leptokurtic profile. The JB test fails to reject the null hypothesis indicating that return series was normal in the Indian stock market. On the other hand, trading volume series has much less volatility around its mean compared to return. For normality the JB test fails to reject the null hypothesis indicating that trading volume series was normal.

**Table 1:Descriptive Statistics for Stock Return and Trading Volume**

| | Return | Volume |
|---|---|---|
| Mean | -0.0003 | 14.022 |
| Median | -0.0004 | 13.956 |
| Maximum | 0.043 | 18.665 |
| Minimum | -0.047 | 11.480 |
| Std. Dev. | 0.009 | 1.031 |
| Skewness | -0.092 | 0.278 |
| Kurtosis | 6.169 | 2.610 |
| Jarque-Bera | 984.984 | 26.729 |
| Observations | 1450 | 1450 |

The correlation coefficient between trading volume and stock return is 0.075 and significant at 1% confidence level.

For the test of unit root the present study employs the Augmented Dickey-Fuller test and PP test with null hypothesis that series have unit root (non-stationary). Table 2 reports values of ADF test and PP test of both trading volume and stock return for the level and the first difference.

**Table 2: Unit Root Test for Trading Volume and Stock Return**

| | Return | Volume |
|---|---|---|
| *ADF* | -0.62 | -0.45 |
| *PP* | -0.64 | -0.33 |
| At First Difference | | |
| | Return | Volume |
| *ADF* | -7.34 | -12.51 |
| *PP* | -32.24 | -71.92 |

The results of ADF test at the level suggest that both return and trading volume has a unit root (non-stationary at the level). Phillips-Person (PP) test is applied to test for the existence of unit roots in data. PP test confirms the results derived from Augmented Dickey-Fuller (ADF) showing that both of trading volume and stock return are non-stationary at the level.

From Table 3, we can see that the coefficient is still positive, but not significant either in current or lagged values. Lagged return coefficient is positive and significant at 1% level of significance. Additionally, F-statistic is significant at 1% level of significance, but adjusted R-Square is very small.

**Table 3: Regression Results:**

| | V | Vt-1 | Rt-1 | F-statistic | Adj. R-Square |
|---|---|---|---|---|---|
| Coefficient | 0.0005 | 0.0001 | 0.142** | | |
| T-statistic | 1.231 | 0.389 | 5.291 | 12.26** | 0.023 |
| P-value | 0.175 | 0.689 | 0.000 | | |

Dependent variable: return. Independent variables: trading volume. One lagged period (trading-volume and return)

** Significant at the 0.01 level (2-tailed).

* Significant at the 0.05 level (2-tailed).

For trading volume-return relationship, Table 4 reports the results for this relationship, results are the coefficient is still positive, but not significant either in current or lagged values; lagged trading volume coefficient is positive and significant at 1% level of significance. Additionally, F-statistic is significant at 1% level of significance and adjusted R-Square is relativity high.

**Table 4: Regression Results:**

| | V | Vt-1 | Rt-1 | F-statistic | Adj. R-Square |
|---|---|---|---|---|---|
| Coefficient | 2.734 | 2.621 | 0.73** | | |
| T-statistic | 1.330 | 1.246 | 40.138 | 564.89** | 0.51 |
| P-value | 0.181 | 0.201 | 0.000 | | |

**Table 5** shows a positive significant coefficient at 1% level of significance, but an insignificant negative coefficient in the case of bull markets. F-statistic, which measures that overall significance of the regression model, was significant at 1% level of significance; we chose to report the adjusted R-Square as it increases only if the new term improves the model more than would be expected by chance. Adjusted R-Square indicates that, on average, in 60% our model could explain the variation of trading volume. To sum up, we can strongly reject the null hypothesis, as our findings document a positive significant relationship between trading volume and return volatility, this relationship disappears in the case of

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bull markets. This analysis points out that news is having an impact on trading volume. Therefore, good news increases stock return volatility and leads to an increase in trading volume and bad news decreases stock return volatility and reduces trading volume.

**TABLE-5: Regression result**

| | Vt-1 | Vt-2 | Rt Squ. | DRt Squ. | F-statistic | Adj. R-Squ |
|---|---|---|---|---|---|---|
| Coefficient | 0.45** | 0.32** | 460.56** | -25.212 | | |
| T-statistic | 19.250 | 12.213 | 4.145 | -0.156 | 530.03** | 0.62 |
| P-value | 0.000 | 0.000 | 0.000 | 0.867 | | |

To test the co integration between trading volume and return, we apply the Johansen co integration test to our data at the level (i.e. in the non-stationary situation). The results of co integration were reported in Table 6. Trace test where statistics is greater than 1% critical value, therefore, we have one co integration equation at 1% level of significance among our sample. Analysis of the Max-Eigen value is applied to confirm the long-run relationship. Max-Eigen results were also reported in Table 6. Results on maximum Eigen value statistic indicate one co integration equation at 1% level of significance.

**Table 6: Johansen Co integration Test for Return and Trading Volume**

| Variables | Eigen-Value | Trace statistic | Critical Value (0.01) | Prob. | Max-Eigen Statistic | Critical Value (0.01) | Prob. | Hypothesized Number |
|---|---|---|---|---|---|---|---|---|
| Return | 0.0670 | 113.554* | 30.1452 | 0.000 | 107.651* | 22.756 | 0.000 | None* |
| Volume | 0.002745 | 3.786 | 16.345 | 0.751 | 3.871 | 16.554 | 0.750 | At most 1 |

Assumptions: Deterministic trend in the series in levels and intercept in the co integrating equation.
Trace test and Max-Eigen value test indicate 1 co integrating equation at the 0.01 level.
* denotes rejection of the hypothesis at the 0.01 level.

In the previous discussion we managed to prove the cointegration relationship between trading volume and return. However, it's it is possible that cointegrated variables may deviate for this relationship in the short-run, but their association would return in the long-run. According to representation of the Granger theorem, if two variables are cointegrated, then there is an error correction representation (ECM), which effects the short-run adjustment. To evaluate the dynamic adjustment patterns, Vector-Error Correction Model (VECM) are estimated and the results for this model was reported in Table 7.

**Table 7: Vector Error Correction Estimates**

| Cointegrating Eq: | | |
|---|---|---|
| Return(-1) | 1.0000 | 1.0000 |
| Trading volume(-1) | -1.1519** | -0.8533 |
| t-value | (-36.01) | (-0.65) |
| C | -0.0010 | 0.0009 |
| **Error Correction:** | | |
| CointEq1 | -0.00090 | -2.2355** |
| t-value | (-1.02) | (-35.81) |
| Trading volume(-1) | -0.0003 | 0.6608** |
| t-value | (-0.44) | ( 14.11) |
| Trading volume(-2) | 0.0002 | 0.2782** |
| t-value | ( 0.45) | ( 10.51) |
| Return(-1) | -0.5501** | 3.5737* |
| t-value | (-21.22) | ( 2.27) |
| Return(-2) | -0.2828** | 4.3277** |
| t-value | (-10.94) | ( 2.75) |
| Constant | 0.0000 | 0.0004 |
| t-value | (-0.07) | ( 0.02) |
| Adj. R-square | 0.25 | 0.74 |
| F-statistic | 92** | 782** |

First we run VECM considering stock return as an endogenous variable. It is clear that return is responding to changes in trading volume negatively in the long-run. In other words, the long-run elasticity of the stock return to the trading volume was 1.15, i.e. a one percent deviation in the trading volume decreases the stock return by 1.15 percent. The coefficients on the ECT (Error-Correction Term) give the short-run adjustment to changes in the equilibrium relationship between the variables.

Granger-causality test is used to validate findings about causality relationship among variables and direction. Lag four is selected to get appropriate results which are user specified. Results are reported in Table 8.

**Table 8: Pairwise Granger-Causality Tests between Stock Return and Trading Volume**

| Null Hypothesis: | Trading Volume does not Granger Cause Return | | Return does not Granger Cause Trading Volume | |
|---|---|---|---|---|
| | F-statistic 2.30 | P-Value 0.05 | F-statistic 4.13** | P-Value 0.000 |

Results show unidirectional causality from stock return to trading volume as F-value is significant at 1% level of significance when testing the causality from return to volume but not significant at all for the opposite direction, which implies that market return leads trading volume in the banking sector. To sum up, we can reject the null hypothesis that stock return does not Granger-cause volume in Indian Stock Market. In other words, Granger-causality test confirms the long-run unidirectional causality from stock return to trading volume.

On the other hand, we cannot reject the null hypothesis that trading volume does not Granger-cause stock return, which means that trading volume past values have no significant effect on prediction of current and future stock return values.

## Conclusion

The results proved evidence that stock return is not normal with leptokurtic curves in most cases, which in fact consistent with mixture of distributions model. On other hand, trading volume appears closer to normality with less volatility. Correlation among our variables could be seen at 1% level of significance. Even though the correlation coefficient was positive, it was very small. Unit root was revealed in both series at the original series but this non-stationarity quickly disappeared at the first difference. Our results fail to confirm this relationship which indicates that information may flow simultaneously rather than sequentially into the market. Our findings suggest that trading volume is responding positively to return volatility, which in turn implied that new daily information in the market may have a significant impact on price volatility. Cointegration analysis shows that stock return is cointegrated with trading volume indicating a long-run equilibrium relationship. Vector Error Correction Model also indicates the existence of a long-run causality relationship from stock return to trading volume. It is evident in our sample that trading volume moves in sympathy with stock return. A unidirectional Granger-causality exists between stock return and trading volume. Hence movement of stock return is responsible for movements in trading volume. Finally, it can be said that trading volume and stock return have a significant long-term relationship. Therefore, changes in stock return will lead towards movements in trading volume and this leads to the adoption of the first adage "volume is relatively heavy in bull markets and light in bear markets" in Indian Stock Market.

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# Impact Of Marital Status And Experience On Job Satisfaction Of Employees In Banking Sector

***Harmeet Kaur**

**Abstract**

An organization's strength is determined by the quality of its human resources which play a pivotal role in the utilization of the other resources. Since organizations are managed and staffed by people, the challenges and the opportunities of creating and managing them frequently emerge from the people themselves. It is the responsibility of those who are managing the capital, the material and other information assets, to add value to the organization, also by managing their human resources, the human capital effectively. Banking industry is growing ever since its inception but after liberalization it has gained wider scope. The study focuses on the impact of marital Status and Experience on job satisfaction of employees in banking sector. It aims to gain an insight into current working life policies and practices, as well as other issues of employees. Several notable factors that influence Job Satisfaction considered for the study were pay, promotion, supervision, benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication. A sample of 600 respondents were taken for the analysis and it was revealed that the married respondents are more satisfied on promotion and communication dimensions, while majority of the dimensions of Job satisfaction show significant differences with regard to experience.

**Keywords:** Experience, Job Satisfaction, Marital Status.

## Introduction

An organization's strength is determined by the quality of its human resources which play a pivotal role in the utilization of the other resources. Since organizations are managed and staffed by people, the challenges and the opportunities of creating and managing them frequently emerge from the people themselves. It is the responsibility of those who are managing the capital, the material and other information assets, to add value to the organization, also by managing their human resources, the human capital effectively.

Human beings do work generally to pass time, earn living, discharge family and social duties, actualize talents and capabilities, prevent boredom and in some case to earn a reputation and win recognition.

Job satisfaction can be defined as an individual's response to the job or assignment, which denotes the extent of positive and happy feelings that he or she derives from doing the job. It represents a person's evaluation of his job and work context. It is an appraisal of the perceived Job characteristics, work environment and emotional experiences at work. Satisfied employees have a favourable evaluation of their job, based on their observations and emotional experiences. Job satisfaction consists of a collection of attitudes about specific facets of the job. Employees can be satisfied with some elements of the job, while being simultaneously dissatisfied with others.

It is an established fact that job –satisfaction usually leads to qualitative and quantitative improvement in performance. Satisfaction in the job induced motivation and interest in work. It represents a person's evaluation of his job and work context. Job satisfaction consists of a collection of attitudes about specific facets of the job. Employees can be satisfied with some elements of the job, while being simultaneously dissatisfied with others.

Although in India, high rate of unemployment makes any work attractive, however, employers need to recognize the economic, social and self-actualization needs of employees so that they can develop their potential qualities and experience to have a better Job Satisfaction.

The current economic situation provides a lot of opportunities as well as challenges to the existing banks. It is up to the banks to leverage the opportunities to meet the challenges to the best of their abilities. Developing countries like India, still has a huge number of people who do not have access to banking services due to catered and fragmented locations. But if we talk about those people who are availing banking services, their expectations are raising as the level of services are increasing due to the emergence of Information Technology and competition.

Banking sector is emerging and growing at a rapid pace. With the development and advancement of technology, globalization and influence of money in the lives of the people, total scenario of banking industry has changed.

## Review of Literature

Johansen (1975) was of the view that workers often value factors such as job interest, and good working conditions above pay. He concludes that pay becomes the most important factor in job satisfaction only when it is seen as a compensation for a dissatisfying and alienating job situation.

In a study under Indian conditions, Bharadwaj, (1983) found that overall QWL is related to job satisfaction, humanizing work or Individualizing the organization, and organizational development prgogrammes. It involves both personal (subjective) and external (objective) aspects of work related rewards, work experience and work environment.

Rice et al. (1985) emphasize the relationship between work satisfaction and quality of people's lives. They contend that work experiences and outcomes can affect person's general quality of life, both directly and indirectly through their effects on family interactions, leisure activities and levels of health and energy.

Efraty, Sirgy and Claiborne (1991) conducted a study on 219 service deliverers to the elderly persons and found that personal alienation increased need deprivation, which in turn

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decreased job satisfaction which in turn decreased job involvement, which ultimately decreased organizational identification.

Chandawarkar (1998) studied the three crucial determinants of effective human resource development, viz., communication satisfaction, job satisfaction and organizational commitment. It was found that a positive communication environment is an essential ingredient of organizational effectiveness. Job satisfaction is broadly related to a number of communication satisfaction determinants, most importantly communication climate, personal feedback and interdepartmental communication.

Nayak (1999) used a structured questionnaire to study the relationship between leadership and Job satisfaction among randomly selected 80 supervisors at a Steel Plant. It was found that job satisfaction of the workers is higher under relationship-oriented supervisors than task-oriented supervises and further the employees in highly favourable situations are most satisfied while those in highly unfavourable situation are least satisfied.

The study on job satisfaction by Hossain (2000) was designed with a view to investigating the satisfaction of commercial bank employees and its consequences on related issues of 440 commercial bank employees in Bangladesh from both the private and the public sectors were randomly selected as sample for the study. The results revealed that the public sector bank employees were in a better position in terms of their job satisfaction than the private sector bank employees and the executives were more satisfied than the non-executives.

Yousef (2000) investigated the role of various dimensions of organizational commitment and job satisfaction in predicting various attitudes towards organizational change. The analysis revealed attitudes that employees' attitudes towards organizational change increase with the increase in affective commitment, and that low perceived alternatives directly and negatively influence attitudes towards change.

Jegadeesan (2007) discussed factors affecting job satisfaction and its influence employee's good feeling or ill feeling. The most important among them are working conditions, wage structure, work group, nature of work and quality of supervision.

Kamal and Sengupta (2008-09), in their study ascertained the degree of overall job satisfaction prevailing among the bank officers, elicited officer's views on the different factors of job satisfaction being identified as motivation/hygiene factors and studied the impact of different variables such as the occupational level (clerks, cashiers or officers), age, education, organizational climate, economic background and gender, on the various factors affecting the overall job satisfaction.

Shrivastava and Purang (2009) examined the job satisfaction level of 340 bank employees of a public sector and private sector bank in India. Job Diagnostic Survey by Hackman and Oldham (1975) was used to ascertain the level of job satisfaction. Results indicated that the means of the public and private banks were significantly different from each other. It was found that private sector bank employees perceive greater satisfaction with pay, social, and growth aspects of job as compared to public sector bank employees.

Khalid and Irshad (2010) aimed at examining job satisfaction level of bank employees in Punjab Province. A structured questionnaire survey conducted. The result of study reveals that employees of private banks were more satisfied with pay, recognition, and working hours as compared to public sector bank employees.

Kumar (2012) studied the job stress of employees of nationalized and non- nationalized banks of Kottayam and Ernakulam district of Kerala. He found that stress is higher among non-nationalized bank employees compared to nationalized bank employees.

**Significance of the Study**

Banking industry is growing ever since its inception but after liberalization it has gained wider scope. The study will quantify the effects of job satisfaction on employees in banking sector. The study will help the policy makers and the management to frame policies and take steps so that higher job satisfaction can be achieved in banking sector.

**Objectives of the Study**

1. To study the difference in all the dimensions of Job Satisfaction of employees with regard to Marital- Status
2. To study the difference in all the dimensions of Job Satisfaction of employees with regard to Experience

**Hypotheses of the Study**

H1: There is a significant difference in all the dimensions of Job Satisfaction of employees with regard to Marital- Status

H2: There is a significant difference in all the dimensions of Job Satisfaction of employees with regard to Experience

**Scope of the Study**

The study will cover all major banks of Uttarakhand region namely, Punjab National Bank (P.N.B.), State Bank of India (S.B.I.) and Central Bank of India from Public Sector and Housing Development Financial Corporation (H.D.F.C.) Bank, Industrial Credit and Investment Corporation of India (I.C.I.C.I.) Bank and Axis Bank from Private Sector.

**Limitations of the Study**

There was non-cooperation and resistance of the employees to evaluate their quality of work life may be because of their hectic routine work. Also, there was shortage of time.

**Research Methodology**

A sample of 100 employees taken from each bank's main branches and a total of 600 respondents were selected by using simple random sampling method. The study is based on primary as well as secondary data .For the purpose of measuring Job Satisfaction, a scale developed by Spector (1985) was used. It was designed to assess employee attitudes about the job and aspects of the job. It consists of 36 items which describe nine job facets (four items per facet). The job facets include pay, promotion, supervision, benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication.

**Analysis and Interpretation**

**Dimensions of Job Satisfaction of the employees with Regard to Marital Status**

Differences in Dimensions of Job Satisfaction with regard to Marital Status in Public and Private Sector Banks is studied with the help of t-test.

**H1: There is a significant difference in all the dimensions of Job Satisfaction of employees with regard to Marital-Status**

The association between marital status and job satisfaction was examined using mean scores, standard deviations and t-test which are shown in table 1.

**Table No. 1: Mean, Standard deviation and T-test for Dimensions of Job Satisfaction of the Employees with Regard to Marital Status**

| Dimensions of Job Satisfaction | Married | | Unmarried | | t-test | |
|---|---|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. | T | p-value |
| Pay Satisfaction (PS) | 17.09 | 2.46 | 16.32 | 2.49 | -1.867 | .063 |
| Promotion Satisfaction (PRS) | 17.01 | 3.47 | 15.83 | 2.92 | -2.082 | .038* |
| Supervision Satisfaction (SS) | 16.41 | 2.95 | 16.20 | 2.55 | -.440 | .660 |
| Benefit Satisfaction (BS) | 17.00 | 2.85 | 16.85 | 2.39 | -.320 | .749 |
| Reward Satisfaction (RS) | 15.97 | 3.61 | 15.98 | 3.31 | .007 | .994 |
| Operating Procedure Satisfaction (OPS) | 17.52 | 3.32 | 17.10 | 2.67 | -.784 | .434 |
| Co-worker Satisfaction (CWS) | 17.40 | 2.34 | 17.12 | 2.23 | -.708 | .479 |
| Work itself Satisfaction (WS) | 16.59 | 2.94 | 16.41 | 2.31 | -.369 | .712 |
| Communication Satisfaction (CS) | 16.41 | 3.19 | 15.37 | 2.74 | -1.978 | .049* |
| **Overall Job Satisfaction (JS)** | **151.40** | **20.05** | **147.17** | **17.93** | **-1.278** | **.202** |

*significant at p <0.05
**significant at p<0.0
Source: field study

The results of t-test revealed that there were significant differences on the dimensions of job satisfaction of promotion and Communication satisfaction, as their respective p-values are .038 and .049 which is less than the assumed value of 0.05 level. Hence, hypothesis is rejected as seven out of nine dimensions of JS show non-significant differences with regard to marital-status. Therefore, Hypothesis H1 is rejected.

**Dimensions of Job Satisfaction of the employees with Regard to Experience**

Dimensions of Job Satisfaction of the employees of Public and Private Sector Banks with Regard to Experience is studied with the help of t-test.

**H2: There is a significant difference in all the dimensions of Job Satisfaction of employees with regard to Experience**

The association between experience and quality of work life was examined using mean scores, standard deviations and t-test which are shown in table 4.6.

**Table No.2 Mean, Standard deviation and Analysis of Variance (ANOVA) for Dimensions of Job Satisfaction of the Employees with Regard to Experience**

| Dimensions of JS | <5yrs | | 5-10 yrs | | >10 yrs | | ANOVA |
|---|---|---|---|---|---|---|---|
| | Mean | S.D | Mean | S.D | Mean | S.D | p-value |
| Pay Satisfaction (PS) | 16.11 | 2.78 | 16.53 | 3.06 | 17.38 | 2.18 | 0.000** |
| Promotion Satisfaction (PRS) | 16.57 | 3.26 | 15.74 | 3.63 | 17.08 | 3.45 | .171 |
| Supervision Satisfaction (SS) | 15.70 | 2.58 | 16.79 | 2.96 | 16.62 | 2.98 | .036* |
| Benefit Satisfaction (BS) | 16.86 | 2.65 | 16.42 | 2.32 | 17.08 | 2.89 | .547 |
| Reward Satisfaction (RS) | 14.74 | 3.48 | 16.95 | 4.12 | 16.39 | 3.45 | .001** |
| Operating Procedure Satisfaction (OPS) | 16.38 | 3.34 | 17.47 | 3.20 | 17.91 | 3.12 | .001** |
| Co-worker Satisfaction(CWS) | 17.11 | 2.19 | 17.84 | 2.91 | 17.42 | 2.33 | .383 |
| Work itself Satisfaction (WS) | 16.36 | 2.67 | 16.58 | 2.43 | 16.65 | 2.97 | .716 |
| Communication Satisfaction (CS) | 15.71 | 2.81 | 16.32 | 3.32 | 16.50 | 3.26 | .149 |
| Overall Job Satisfaction (JS) | 145.55 | 19.48 | 150.63 | 22.74 | 153.04 | 19.36 | 0.012** |

*significant at p<0.05
**significant at p<0.01
Source: field study

It was found that employees who had more than 10 years of experience were more satisfied with pay and operating procedure as compared to their counterparts. While on the other hand, employees who had the experience between 5 and 10 years were more satisfied with supervision and reward as compared to their counterparts. Hence, hypothesis is accepted as majority of the dimensions of Job satisfaction show significant differences with regard to experience. Hence, Hypothesis H2 is accepted.

**Conclusion**

Further the data reveals that the married respondents are more satisfied on promotion and communication dimensions as their mean scores are higher than those of the un-married respondents. The reason for this may be that job for married people can be a necessity while for unmarried it can be just a source of earning pocket money. Thus, as marriage entails certain responsibilities on married ones, they are satisfied with their promotion and communication patterns of the organization. While unmarried people have fewer responsibilities, they keep on trying different jobs as they are never satisfied to be in one particular job. Also, it can be concluded that the growing age and ample experience of the employees make them exhibit their behavior in the form of attitudes, perceptions towards quality of life and satisfaction derived from work to be a model for others.

**Recommendations**

1. A supportive climate and culture should be encouraged by providing opportunities to individuals to make meaningful contribution, involving employees in teamwork planning and administration, career guidance and various other growth opportunities.
2. There should be Employee Feedback Surveys in banks after regular intervals so that information from employees on areas like personal health and wellness, workplace relationships and measures of a healthy workplace can be collected.
3. Banks should encourage participative management and good communication within the organization. It will help employees express their views on various issues and official problems.

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# Stock Market Reaction to Final Dividend Announcements.

***Dr. Swati Mittal**

**Abstract**

Accordingly, Corporate Managers' Dividend Policy decisions affect the common stock prices and thereby have an impact on wealth of the shareholders. There is need to study the significance of this emerging trend, its signaling effect on share price and its impact on the wealth of the shareholders. The study aims to check whether efficient market hypothesis holds for Indian stock market or not i.e., whether there is any movement in share prices before or after the dividend announcements. The study includes Top 100 companies rated by Chartered Financial Analyst Survey 2008 and informational efficiency for last ten calendar periods-January. 2004 to December 2013 has been investigated. The results show that the Indian Capital Market is semi strong efficient as it is using the information relevant for security valuation and for investment decision making. The role of SEBI can be instrumental in preventing insider trading so that the confidence of the investors is maintained and the stock market can become more vibrant and dynamic.

## I. Introduction

In corporate finance, it is a decision made by the directors of a company. It relates to the amount and timing of any cash payments made to the company's stockholders. The decision is an important one for the firm as it may influence its capital structure and stock price. In addition, the decision may determine the amount of taxation that stockholders pay. Dividend is a distribution of a portion of a company's earnings, decided by the board of directors, to a class of its shareholders. Dividends may be in the form of cash, stock or property. Dividend policy has an impact on the value of the share when there are sudden changes in dividends. It will have an impact on the price of share of the company. When a firm increases its dividend, investors perceive that they will get higher earnings in the future. If there is a decrease in dividend, it is like an alarm bell that the company is not in a favorable future earning capacity. When dividend announcements are made, the expectations of investors increase or decrease, and the expectations in the capital market also react favorable of unfavorable depending upon whether dividend announcement is good or bad. The expectations of market are based upon past behaviour, current earnings and dividend policy. If dividend decision matches the expectations of the market and the investors the price of a share will not change, but when actual dividend is different from expected dividend then value of share will change.

Dividends are optional and at the company's discretion. They may be distributed as cash, Scrip or Enhanced Scrip Dividend payable in two half-yearly installments known as interim and final payments. Accordingly, Corporate Managers' Dividend Policy decisions affect the common stock prices and thereby have an impact on wealth of the shareholders. A lot of research has been done in the areas of market reaction to dividend announcements and the information content of dividends hypothesis (ICH). Previous theory and research suggests that dividends may contain information about the firm (i.e., dividends are a signal of future earnings) or information about the perk consumption of management (i.e., dividends reduce the free cash flow problem).

**Regulatory Framework of Dividend Issue**

As per Section 123 of the Companies Act 2013:

(1) No dividend shall be declared or paid by a company for any financial year except—

(a) Out of the profits of the company for that year arrived at after providing for depreciation in accordance with the provisions of sub-section (2), or out of the profits of the company for any previous financial year or years arrived at after providing for depreciation in accordance with the provisions of that sub-section and remaining undistributed, or out of both; or

(b) Out of money provided by the Central Government or a State Government for the payment of dividend by the company in pursuance of a guarantee given by that Government: Provided that a company may, before the declaration of any dividend in any financial year, transfer such percentage of its profits for that financial year as it may consider appropriate to the reserves of the company:

Provided further that where, owing to inadequacy or absence of profits in any financial year, any company proposes to declare dividend out of the accumulated profits earned by it in previous years and transferred by the company to the reserves, such declaration of dividend shall not be made except in accordance with such rules as may be prescribed in this behalf: Provided also that no dividend shall be declared or paid by a company from its reserves other than free reserves.

(2) For the purposes of clause (a) of sub-section (1), depreciation shall be provided in accordance with the provisions of Schedule II.

(3) The Board of Directors of a company may declare interim dividend during any financial year out of the surplus in the profit and loss account and out of profits of the financial year in which such interim dividend is\ sought to be declared:

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Provided that in case the company has incurred loss during the current financial year up to the end of the quarter immediately preceding the date of declaration of interim dividend, such interim dividend shall not be declared at a rate higher than the average dividends declared by the company during the immediately preceding three financial years.

(4) The amount of the dividend, including interim dividend, shall be deposited in a scheduled bank in a separate account within five days from the date of declaration of such dividend.

(5) No dividend shall be paid by a company in respect of any share therein except to the registered shareholder of such share or to his order or to his banker and shall not be payable except in cash:

Provided that nothing in this sub-section shall be deemed to prohibit the capitalization of profits or reserves of a company for the purpose of issuing fully paid-up bonus shares or paying up any amount for the time being unpaid on any shares held by the members of the company:

Provided further that any dividend payable in cash may be paid by cheque or warrant or in any electronic mode to the shareholder entitled to the payment of the dividend.

(6) A company which fails to comply with the provisions of sections 73 and 74 shall not, so long as such failure continues, declare any dividend on its equity shares.

**Review of Literature**

Existing literature suggests that there are two major relationships that are commonly employed to verify the information contents of dividend policy and whether dividends are important signals about firm value communicated to outside investors: (i) the relationship between dividend changes and unexpected changes in future earnings **(Ofer and Siegel, 1987; Denis et al. ,1994; and Yoon and Starks, 1995)** (ii) the relationship between dividend signals and capital market price reactions **(Aharony and Swary, 1980; Asquith and Mullins, 1983; Ofer and Siegel, 1987; Impson and Karafiath, 1992; Jin, 2000; Michaely et al. ,1995; Yoon and Starks, 1995).** The results of these studies provide support for the information content of dividend hypothesis.

**Pettit (1972)** investigated the speed and accuracy of market reactions to the announcements of dividend changes, and found that most of the information implicit in the release had been capitalized into the stock prices at the end of announcement period. This offered support to the semi-strong form efficiency on both monthly and daily basis.**Asquith and Mullins (1983)** initiated the work on determining the effect of dividend initiations on stock prices based on a premise that the best measure of an unanticipated dividend event is the initiation of dividends. Using a sample of 168 companies that initiated dividends, they found a significant positive excess return following dividend initiation announcements.

**Kane et al. (1984)** studied those firms in the U.S. where earnings and dividend announcements were made within 10 days in their sample. It is uncommon in the U.S. to announce earnings and dividend information simultaneously.

**Healy and Palepu (1988)** extended the work of **Asquith and Mullins (1983)** by looking at the nature of earning changes surrounding a dividend initiation or omission announcements.. The study found a correlation between abnormal stock price reactions to dividend initiations or omissions and earning changes during and following the announcement year. **Easton and Jarrell (1991)** examined Australian firms, which made simultaneous earnings and dividend announcements. These two studies concluded that there was a significant interaction effect between dividends and earnings, but the researchers did not examine which information effect is stronger.

**Impson and Karafiath (1992)** extended the analysis of stock market reactions to dividend by focusing on the different reactions to the proportion of increasing and decreasing payout ratio for both dividend increase and decrease announcements. A sample consisting of 116 dividend announcements made by companies listed on the **NYSE/AMEX during the period 1970 to 1986** was used in the study **Leftwich and Zmijewski (1994) used 972** quarterly announcements of earnings and dividends made within one trading day of each other to test relative information content and found that quarterly earnings reports provide more information than the dividend announcements.

**Zhang and Han (1997)** used the event study to test the dividend and rationed shares effect in Shanghai stock market, and found out that during the whole researching period and in the bear market, the abnormal return rate of the dividend distribution was the largest, stock-delivery took second place and the rationed shares was the smallest.

**Conroy et al. (2000)** found an insignificant announcement effect from dividends, and concluded that earnings and their forecasts exert more impact to explain share price performance than dividends. **Campbell and Ohuocha (2011)** examined whether stock dividend announcements create value for companies traded on the Nigerian stock market, and ascertained the nature of the information such announcements convey. The findings suggested that companies which choose their own announcement date outside the Nigerian stock exchange announcement window experience positive abnormal returns if their stock is more frequently traded; and negative abnormal returns, if their stock is less frequently traded.

**Need for the Study**

There is need to study the significance of this emerging trend, its signaling effect on share price and its impact on the wealth of the shareholders. Further, it has been argued that if the capital markets are efficient then they would react immediately to dividend announcements. On the other hand, if the markets are inefficient then such information already gets trickled to the markets much before it is formally announced. This may also lead to insider trading by the management, the directors and the employees of the company. In such a scenario, the market may not react at all when the information is finally made public. The study aims to check whether efficient market hypothesis holds for Indian stock market or not i.e., whether there is any movement in share prices before or after the dividend announcements.

**Research Design**

The study includes Top 100 companies rated by Chartered Financial Analyst Survey 2008 and informational efficiency for last ten calendar periods- January. 2004 to December 2013 has been investigated. The Analyst 500 companies have been ranked on the basis of their Net Sales alone. Besides, Net Sales, other parameters, such as like Profit after tax (PAT), Operating profit or Profit before depreciation and tax (PBDIT), Operating Profit Margin and Market Capitalization have also been considered.

For the present study, secondary data has been used. For exploring the objectives of this study, the information disclosure concerning the dividend announcements have been collected from BSE (Bombay Stock Exchange) website. Data regarding share prices and Sensex has been taken from BSE (Bombay Stock Exchange) and NSE (National Stock Exchange) websites. The data on daily closing values of market proxy is obtained from Capitaline Database. Capitaline Database is maintained by Capital Market Publishers India Private Limited.

**'Event Study'** methodology has been used for the purpose of analyzing the corporate announcements effect. This analytical approach is well accepted and has been widely used in various disciplines such as Finance, Accounting, Marketing, Strategy, E-Commerce and Law. The methodology has also been applied to assess the impact of some marketing and advertising relationship events such as brand extension announcements **(Lane and Jacobson, 1995).**

The event study methodology has been used to estimate Cumulative Abnormal Returns (CAR) for a 15 day window period. Market Model Method (Single factor Model) has been used. The study endeavors to find the Cumulative Abnormal Return (CAR). Market Model assumes that all inter-relationships among the returns on individual's assets arise from a common market factor that affects the return on all assets, i.e., the expected return on individual assets. The event study methodology has been extensively used to assess the impact of an announcement of a particular strategy of the firm's stock prices.

**Analysis of Stock Market Reactions To Final Dividend Announcements**

Previous Theories And Research Suggest that dividends may contain information about the firm (i.e., dividends are a signal of future earnings) or information about the perk consumption of management (i.e., dividends reduce the free cash flow problem). Dividend paying stocks are often considered more prudent than non-dividend paying stocks. Data regarding share prices and Sensex has been taken from BSE and NSE websites. The data on daily closing values of market proxy is obtained from Capitaline Database. This process revealed 89 observations. A dividend announcement must satisfy the following criteria to be included in the sample:

- The Dividend announcement date is to be reported in any of the leading financial dailies.
- The dividend distribution is a regular yearly dividend. There are no other dividends such as stock dividend, interim dividend, special dividend etc.
- The firm has not missed the previous regular dividend payment.
- At least 200 daily returns are available before and after the dividend announcement date. These returns are used to calculate pre-event and post-event beta.

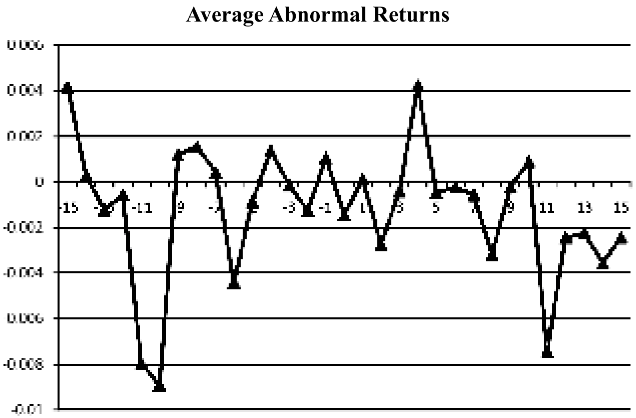
**Table 1.1: Average Abnormal Returns and Cumulative Average Abnormal Returns of Dividend Issue Announcements**

| Days | Average Abnormal Returns | Z-value | Cumulative Average Abnormal Returns |
|---|---|---|---|
| −15 | 0.0041 | 2.3510* | 0.0041 |
| −14 | 0.0002 | 0.3015 | 0.0044 |
| −13 | −0.0011 | −0.9156 | 0.0038 |
| −12 | −0.0005 | −0.3713 | 0.0026 |
| −11 | −0.0079 | −2.6694** | −0.0053 |
| −10 | −0.0089 | −3.7568** | −0.0142 |
| −9 | 0.0011 | 0.7262 | −0.0130 |
| −8 | 0.0015 | 1.3769 | −0.0114 |
| −7 | 0.0004 | 0.2202 | −0.0110 |
| −6 | −0.0041 | −5.1849** | −0.0154 |
| −5 | −0.0008 | −0.9433 | −0.0163 |
| −4 | 0.0013 | 0.9576 | −0.0149 |
| −3 | −0.0001 | −0.1240 | −0.0151 |
| −2 | −0.0012 | −1.0107 | −0.0163 |
| −1 | 0.0010 | 0.5535 | −0.0153 |
| **0** | **-0.0014** | **−1.7058** | **−0.0167** |
| 1 | 0.0001 | 0.1699 | −0.0166 |
| 2 | −0.0027 | −1.7769 | −.01938 |
| 3 | −0.0004 | −0.3437 | −0.019 |
| 4 | 0.0042 | 2.5957** | −0.0155 |
| 5 | −0.0004 | −0.4197 | −0.0160 |
| 6 | −0.0002 | −0.2314 | −0.0162 |
| 7 | −0.0005 | −0.4388 | −0.0168 |
| 8 | −0.0031 | −2.8420** | −0.0200 |
| 9 | −0.0002 | −.20973 | −0.0202 |
| 10 | 0.0009 | 0.8872 | −0.0193 |
| 11 | −0.0074 | −2.7150** | −0.0267 |
| 12 | −0.0024 | −2.6509** | −0.0292 |
| 13 | −0.0022 | −2.3562* | −0.0314 |
| 14 | −0.0035 | −3.1599** | −0.0350 |
| 15 | −0.0024 | −2.4301* | −0.0371 |

**Significantly different from zero at 1 percent level
* Significantly different from zero at 5 percent level

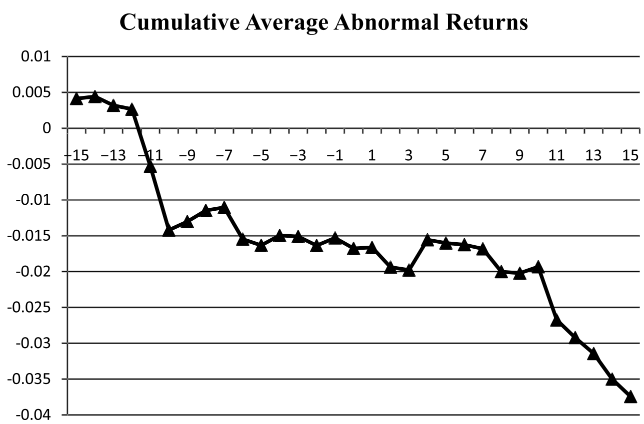
Table 1.1 highlights the average abnormal returns and the corresponding z-values for each of the 31 days of the event window for all the 89 dividend announcements. On the announcement day (0 day), the average abnormal return is −0.0014 percent and z value is −1.7058 which is statistically insignificant at 5 per-cent level. The table indicates that the average abnormal return is negative for majority of the days indicating that corporate investors use these announcements to signal market undervaluation. The average abnormal returns during the event period are statistically significant

**Figure 1.1: Average Abnormal Returns of Final Dividend Issue Announcements**




The figure given above highlights the Average abnormal returns of dividend issue announcements. The average abnormal returns of the firms attained negative values for majority of the days. The effect of announcement is discernible. The analysis of results shows that on the day when the earnings are announced the Average abnormal returns (AARs) are −0.0014 which is insignificant. In addition to this, the perception of investors has been noticed as inconsistent.

**Figure 1.2: Cumulative Average Abnormal Returns of Final Dividend Issue Announcements**




The figure given above highlights the cumulative average abnormal returns of dividend issue announcements. The cumulative average abnormal returns of the firms attained negative values for majority of the days. On the day of dividend issue announcements, Cumulative average abnormal return is −0.0167. Further, the cumulative effect of abnormal returns showed a continuous downward drift after the announcement. This might reflect underperformance of the index with respect to the expected model of market return. Similar results were also reported through the analysis of Cumulative Average Abnormal Returns (CAARs) for the stock prices related to annual dividend announcements. It indicated that even by accumulating the investment holdings by the investors, there were no instances of significant abnormal returns to them.

## Conclusion

The stock price movements are attributed to various factors related to the economy, industry, company etc. It is impossible to forecast the share prices on the basis of economy−wise and industry−wise factors as it is quite difficult to obtain the quantitative data on these factors. Therefore, the various company performance variables have been considered to determine the equity price behavior.

The Dividend policy decisions of Corporate Managers affect the common stock prices and thereby have an impact on wealth of the shareholders. Early empirical studies on the information content of corporate announcements examined price movements **(Ball and Brown, 1968)** and volume changes **(Beaver, 1968)**. Volume reactions and changes in the equilibrium prices reflect individual investor's altered expectations. These studies support the notion that corporate public announcements are informative. The previous studies document that the stock market reacts to the dividend changes. The signaling hypothesis suggests that the market reacts because dividend changes contain new information about future earnings. Some studies even find that dividend changes reflect mostly current and past earnings but not future earnings **(Benartzi et al., 1997).**

After making a closer examination of stock returns towards dividend announcements, it can be concluded that the dividend announcements have not resulted into any consistent behavior in the stock return series surrounding the announcement day. And, all the informational content of dividend announcements was fully reflected into share prices instantly and no investor can earn significant abnormal returns by strategizing his/her investment policy. So, it has strengthened the argument in favor of semi-strong form efficiency over the Indian stock markets. **Malhotra (2007)** also reported the similar results of insignificance of dividend announcements of chemical companies' stocks. In addition to this, **Thirumalvalavan and Sunitha (2006)** studied that in Indian stock markets, the impact of stock repurchase information is more in comparison to dividend information

## Recommendations And Suggestions

From the foregoing analysis, the following suggestions have been made to make Indian capital market more efficient. It is a known fact that reliability of accounting information is important. The regulation of accounting norms and audit practices will improve the reliability of accounting information.. The larger the number of analysts, the more efficient will be the market. Thus, market efficiency depends upon the number of investors in the market, particularly the institutional investors and number of analysts. There is need to promote programmes that will produce professional analysts. The more visible a company, the more perfect its market is likely to be 'Perfect' implies that most of the likely factors affecting the price of its securities are presumably known to the market and vice versa. The existence of insider trading or information leakage can erode the confidence of investors in the instrument and may be viewed by them more as a tool to deceive than to benefit them. SEBI should mull over the listing rules, and suitable amendments are the need of the hour to prevent such practices.

**Limitations of the Study**

The results of the study could have further improved, provided the study had covered even larger sample and longer time period. The study has conducted the analysis on the daily stock returns. It is quite possible that the results could have been different had the analysis been done on monthly or annual returns data. The closing share prices have been taken from CAPITALINE database. The results may differ if it would be collected from any other database. The non-availability of trading data reduced the sample size for present study. The result would have been more comprehensive, had the trading data relating to all announcements been available.

**Scope For Further Research**

A bigger sample size adopted in the same area of study can help to get improved results. The study was based on a time series data, which was highly affected by the state of business cycle in the economy. Thus, to get better results the research over a longer period is recommended. It should be tested on annual or monthly data basis to find whether efficient market hypothesis holds for Indian stock market or not, i.e., whether there is any movement in share prices before or after the corporate announcements.

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# Microfinance - As a Catalyst for the Growth of Rural India

***Ashima Mittal,**
***Palak Bajaj**
***Anuja Goyal**

**Abstract**

Microfinance is emerging as a powerful tool for poverty alleviation in India. Microfinance refers to small savings, credit and insurance services extended to socially and economically disadvantaged segments of society. Microfinance began in India in the 1990s as a way of alleviating poverty, by encouraging income generating activities by poor households. The prospect of Micro-finance is dominated by SHGs (Self Help Groups)–Banks linkage Programme. Its aim is to provide a cost effective mechanism for providing financial services to the poor. A large variety of sectors provide microfinance in India, using a range of microfinance delivery methods. Since the ICICI Bank in India, various actors have endeavored to provide access to financial services to the poor in creative ways. Governments also have piloted national programs, NGOs have undertaken the activity of raising donor funds for on-lending, and some banks have partnered with public organizations or made small inroads themselves in providing such services. The range of activities undertaken in microfinance include group lending, individual lending, the provision of savings and insurance, capacity building, and agricultural business development services. This paper outlines three distinct aspects of microfinance, first growth of microfinance in India; secondly it discusses the role played by NABARD and other National Banks in the growth of SHGs and Grameen Bank. Third, it deals with the role of government in framing legislation for protection of right of micro borrowers.

**KEYWORDS:** Microfinance, SHGs, NABARD, Grameen Banks

## Introduction

Microfinance is defined as an activity that includes the provision of financial services such as credit, savings and insurance to low income individuals which falls just above the nationally defined poverty line, and poor individuals which fall below that poverty line, with the goal of creating social value. The creation of social value includes poverty alleviation and the broader impact of improving livelihood opportunities through the provision of capital for micro enterprise, and insurance and savings for risk mitigation and consumption smoothing. Government also have piloted national programs, NGOs have undertaken the activity of raising donor funds for on-lending, and some banks have partnered with public organizations or made some inroads themselves in providing such services. This has resulted in a rather broad definition of microfinance as any activity that targets poor and low-income individuals for the provision of financial services. Microfinance may be called a novel approach to provide saving and investment facility to the poor around world. Improved access and efficient provision of savings, credit and insurance facilities in particular can enable the poor to smoothen their consumption, manage their risks better, gradually build their asset base, develop their business, enhance their income earning capacity and enjoy an improved quality of life. In India, microfinance mainly operates through Self Help Group (SHGs), Non Government Organization (NGOs) and Credit Agencies. It provides poor people with the means to find their own way out of poverty.

According to International Labour Organization (ILO), "Microfinance is an economic development approach that involves providing financial services through institutions to low income clients."

### Activities in Microfinance

**Microcredit:** It is a small amount of money loaned to a client by a bank or other institution. Microcredit can be offered, often without collateral, to an individual or through group lending.

**Micro savings:** These are deposit services that allow one to save small amounts of money for future use. Often without minimum balance requirements, these savings accounts allow households to save in order to meet unexpected expenses and plan for future expenses.

**Micro insurance:** It is a system by which people, businesses and other organizations make a payment to share risk. Access to insurance enables entrepreneurs to concentrate more on developing their businesses while mitigating other risks affecting property, health or the ability to work.

Remittances: These are transfer of funds from people in one place to people in another, usually across borders to family and friends. Compared with other sources of capital that can fluctuate depending on the political or economic climate, remittances are a relatively steady source of funds.

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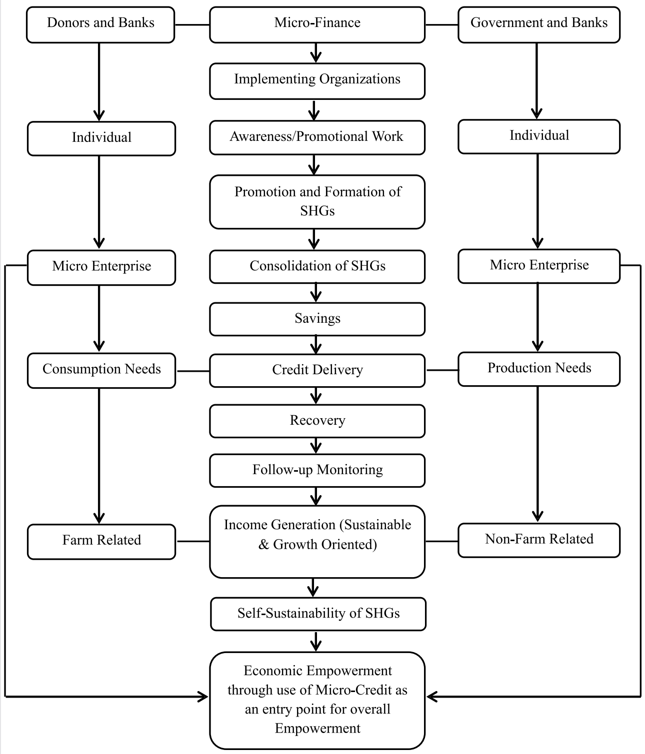
**Development Process Through Micro Finance**




**Review of Literature**

R.Prabhavathy (2012) has examined that collective strategies beyond micro-credit to increase the endowments of the poor/women enhance their exchange outcomes the family, markets, state and community, and socio-cultural and political spaces are required for both poverty reduction and women empowerment. Even though there were many benefits due to micro-finance towards women empowerment and poverty alleviation, there are some concerns.

Chintamani Prasad Patnaik (March 2012) has examined that microfinance seems to have generated a view that microfinance development could provide an answer to the problems of rural financial market development. While the development of microfinance is undoubtedly critical in improving access to finance for the unserved and underserved poor and low-income households and their enterprises, it is inadequate to address issues of rural financial market development.

Crabb, P. (2008) has examined that the relationship between the success of microfinance institutions and the degree of economic freedom in their host countries. Many microfinance institutions are currently not self-sustaining and research suggests that the economic environment in which the institution operates is an important factor in the ability of the institution to reach this goal, furthering its mission of outreach to the poor.

Mohammed AnisurRahaman (2007) has examined that about microfinance and to investigate the impact of microfinance on the poor people of the society with the main focus on rural India. We mainly concise our thesis through client's (the poor people, who borrowed loan from microfinance institutions) perspective and build up our research based on it.

Srinivasan, Sunderasan (2007) has examined that micro banking facilities have helped large numbers of developing country nationals by supporting the establishment and growth of microenterprises. And yet, the microfinance movement has grown on the back of passive replication and needs to be revitalized with new product offerings and innovative service delivery.

Mallory A. Owen (2006) has examined that microfinance has signaled a paradigm shift in development ideology. Using my experiences with microfinance in a fishing village in Senegal, this study will address the claims driving the microfinance movement, debate its pros and cons and pose further questions about its validity and widespread implementation. Instead of lifting people out of poverty and empowering women, microfinance may have regressive long term potential for borrowers.

Linda Mayoux (Feb 2006) has examined that Micro-finance programmes not only give women and men access to savings and credit, but reach millions of people worldwide bringing them together regularly in organized groups. Through their contribution to women's ability to earn an income, micro-finance programmes can potentially initiate a series of 'virtuous spirals' of economic empowerment, increased well-being for women and their families and wider social and political empowerment Banks generally use individual rather than group-based lending and may not have scope for introducing non-financial services.

Fehr, D. and G. Hishigsuren. (2006) has examined that microfinance institutions (MFIs) provide financial services to the poorest households. To date, funding of MFI activities has come primarily from outright donor grants, government subsidies, and often debt capital, including debt with non-market terms favorable to the MFI. These traditional sources of MFI financing may not be sufficient to allow MFIs to provide maximum services.

Basu, P., Srivastava (2005) has examined that the current level and pattern of access to finance for India's rural poor and examines some of the key microfinance approaches in India, taking a close look at the most dominant among these, the Self Help Group (SHG) Bank Linkage initiative. It empirically analyzes the success with which SHG Bank Linkage has been able to reach the poor, examines the reasons behind this, and the lessons learned.

Jennifer Meehan (2004) has examined that it will need to do three things simultaneously. First, it will need to rapidly scale up, in key markets, like India, home to high numbers of the world's poor. Second, in this process, clear priority is needed for philanthropic, quasi-commercial and commercial financing for the business plans of MFIs targeting the poorest

**Objectives of the Study**

- To study the impact of micro finance in empowering the social economic status of rural India.
- To analyze the growth of microfinance sector developed in India and see the potential for the microfinance institutions, NGOs and SHGs.
- To find out the role of government in framing legislation for protection of right of micro borrowers.
- To study the importance and role of microfinance in poverty alleviation and profitable agriculture activities.

**Research Methodology**

This is a descriptive research paper based on secondary data. Data have been find out by googling in different websites, research paper and magazines.

**Entities in Micro Finance**

Indian Microfinance dominated by two operational approaches:

- SHG
  - ✓ Initiated by NABARD through SHG Bank Linkage Program.
  - ✓ Largest outreach to microfinance clients in the world.
- MFIs
  - ✓ Emerged in the late 1990s to harness social and commercial funds.
  - ✓ Today the number of Indian MFIs has increased and crossed 1000.

As we broaden the notion of the types of services micro finance encompasses, the potential market of micro finance clients also expands. It depends on local conditions and political climate, activeness of cooperatives, SHG & NGOs and support mechanism. Central Government in India has established a strong & extensive link between NABARD (National Bank for Agriculture & Rural Development), State Cooperative Bank, district and village level. The Grameen model follows a fairly regimented routine. It is very cost intensive as it involves building capacity of the groups and the customers passing a test before the lending could start. The group members tend to be selected or at least strongly vetted by the bank. One of the reasons for the high cost is that staff members can conduct only two meetings a day and thus are occupied for only a few hours, usually early morning or late in the evening. They were used additionally for accounting work, but that can now be done more cost effectively using computers. The model is also rather meeting intensive which is fine as long as the members have no alternative use for their time but can be a problem as members go up the income ladder.

**Need of Micro Finance In India**

- India is said to be the home of one third of the world's poor; official estimates range from 26 to 50 percent of the more than one billion population.
- About 87 percent of the poorest households do not have access to credit.
- The demand for microcredit has been estimated at up to $30 billion; the supply is less than $2.2 billion combined by all involved in the sector.

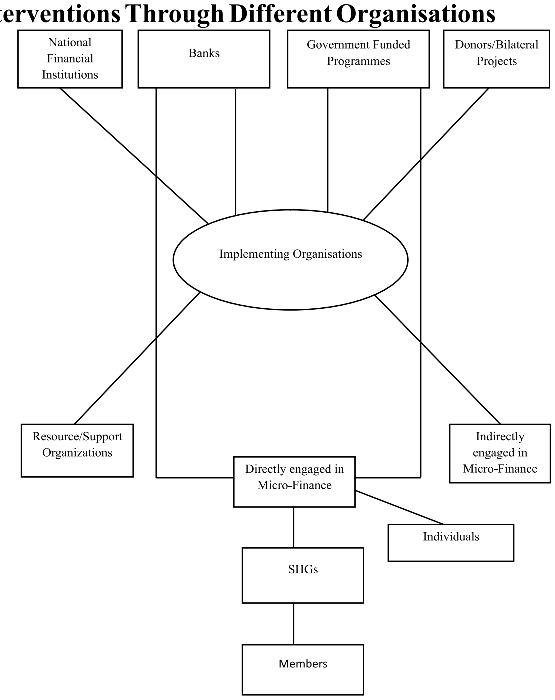
Due to the sheer size of the population living in poverty, India is strategically significant in the global efforts to alleviate poverty and to achieve the Millennium Development Goal of having the world's poverty by 2015. Microfinance has been present in India in one form or another since the 1970s and is now widely accepted as an effective poverty alleviation strategy. Over the last five years, the microfinance industry has achieved significant growth in part due to the participation of commercial banks. Despite this growth, the poverty situation in India continues to be challenging.

**Role of Microfinance**

The micro credit of microfinance programme was first initiated in the year 1976 in Bangladesh with promise of providing credit to the poor without collateral , alleviating poverty and unleashing human creativity and endeavour of the poor people. Microfinance impact studies have demonstrated that:

- Microfinance helps poor households meet basic needs and protects them against risks.
- The use of financial services by low-income households leads to improvements in household economic welfare and enterprise stability and growth.
- By supporting women's economic participation, microfinance empowers women, thereby promoting gender-equity and improving household well-being.
- The level of impact relates to the length of time clients have had access to financial services.

**Interventions Through Different Organisations**



**Legal Regulation**

Banks in India are regulated and supervised by the Reserve Bank of India (RBI) under the RBI Act of 1934, Banking Regulation Act, Regional Rural Banks Act, and the Cooperative Societies Acts of the respective state governments for cooperative banks.

NBFCs are registered under the Companies Act, 1956 and are governed under the RBI Act. There is no specific law catering to NGOs although they can be registered under the Societies Registration Act, 1860, the Indian Trust Act, 1882, or the relevant state acts. There has been a strong reliance on self-regulation for NGO MFIs and as this applies to NGO MFIs mobilizing deposits from clients who also borrow. This tendency is a concern due to enforcement problems that tend to arise with self-regulatory organizations. In January 2000, the RBI essentially created a new legal form for providing microfinance services for NBFCs registered under the Companies Act so that they are not subject to any capital or liquidity requirements if they do not go into the deposit taking business. Absence of liquidity requirements is concern to the safety of the sector.

**Strategic Policy Initiatives**

Some of the most recent strategic policy initiatives in the area of Microfinance taken by the government and regulatory bodies in India are:

- Working group on credit to the poor through SHGs, NGOs, NABARD, 1995
- The National Microfinance Taskforce, 1999
- Working Group on Financial Flows to the Informal Sector (set up by PMO), 2002
- Microfinance Development and Equity Fund, NABARD, 2005
- Working group on Financing NBFCs by Banks- RBI

**Microfinance Changing the Face of Poor India**

Micro-Finance is emerging as a powerful instrument for poverty alleviation in the new economy. In India, micro-Finance scene is dominated by Self Help Groups (SHGs) - Banks linkage Programme, aimed at providing a cost effective mechanism for providing financial services to the 'unreached poor'. In the Indian context terms like "small and marginal farmers", " rural artisans" and "economically weaker sections" have been used to broadly define micro-finance customers. Research across the globe has shown that, over time, microfinance clients increase their income and assets, increase the number of years of schooling their children receive, and improve the health and nutrition of their families.

A more refined model of micro-credit delivery has evolved lately, which emphasizes the combined delivery of financial services along with technical assistance, and agricultural business development services. When compared to the wider SHG bank linkage movement in India, private MFIs have had limited outreach. However, we have seen a recent trend of larger microfinance institutions transforming into Non-Bank Financial Institutions (NBFCs). This changing face of microfinance in India appears to be positive in terms of the ability of microfinance to attract more funds and therefore increase outreach.

**Present Scenario of Micro Finance in India**

India falls under low income class according to World Bank. It is second populated country in the world and around 70 % of its population lives in rural area. 60% of people depend on agriculture, as a result there is chronic underemployment and per capita income is only $ 3262. This is not enough to provide food to more than one individual. The obvious result is abject poverty, low rate of education, low sex ratio, and exploitation. The major factor account for high incidence of rural poverty is the low asset base. According to Reserve Bank of India, about 51 % of people house possess only 10% of the total asset of India .This has resulted low production capacity both in agriculture (which contribute around 22-25% of GDP) and Manufacturing sector. Rural people have very low access to institutionalized credit (from commercial bank).

**Poverty Alleviation Programmes and Conceptualization of Microfinance**

There has been a continuous effort of planners of India in addressing the poverty. They have come up with development programmes like Integrated Rural Development progamme (IRDP), National Rural Employment Programme (NREP), Rural Labour Employment Guarantee Programme (RLEGP) etc. But these programme have not been able to create massive impact in poverty alleviation. The production oriented approach of planning without altering the mode of production could not but result of the gains of development by owners of instrument of production. The mode of production does remain same as the owners of the instrument have low access to credit which is the major factor of production. Thus in Nineties National bank for agriculture and rural development (NABARD) launches pilot projects of Microfinance to bridge the gap between demand and supply of funds in the lower rungs of rural economy. Microfinance the buzzing word of this decade was meant to cure the illness of rural economy. With this concept of Self Reliance, Self Sufficiency and Self Help gained momentum. The Indian microfinance is dominated by Self Help Groups (SHGs) and their linkage to Banks. Deprived of the basic banking facilities, the rural and semi urban Indian masses are still relying on informal financing intermediaries like money lenders, family members, friends etc.

**Discussion And Conclusion**

Microfinance is multifaceted and works in an integrated system. There are many stakeholders and each one has a definite role to play. There is a second level called micro level where MFIs, NGOs, SHGs and Grameen work to provide financial support to individual client. Apex institutions like NABARD, SIDBI and other nationalized banks operate in

Meso-Level to provide infrastructure, information and technical support to micro level players. Around all these levels, there are financial environment, Regulations, legislations and regulators called Macro level. With passage of time new opportunities and new challenges are being felt in the field of microfinance. In recent years microfinance is in news for bad reasons. There are a number of suicide cases of micro credit clients all over. India for excess interest charges and high handedness of recovery agents in recovery of loans. So, government of India has bought out a legislation to check the high interest rate on micro credit and protect the poor from clutches of greedy MFIs. Government of India introduced Micro Finance Institutions (Development and Regulation) Bill 2012 on May 22, 2012 to establish a regulator under RBI to regulate and supervise the activities of NGOs and MFIs. The main features of the Bill are as follows: the Bill allows the central government to create a Microfinance Development Council with officers from different ministers and Departments. The Bill requires all MFIs to obtain a certificate of registration from RBI. These initiatives may go long way in strengthens the micro finance status in India. Lending to the poor through microcredit is not the end of the problem but beginning of a new era. If effectively handled, it can create miracle in the field of poverty alleviation.

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# Indian Automobile Sector: Contribution in Export Business

***Naib Singh**

**Abstract**

Present paper is highlighting the role of automobile industry in the exports business of India. Automobile sector of the country is contributing a lot in the economic development process by its exports at large. Indian Automobile sector has exported 1116209 vehicles in the year 2014-15. According to the report of Deloitte, it is expected that this industry will take the position of world's third largest automobile manufacturer in 2020. Automobile industry in India is manufacturing mainly four types of vehicles viz. two wheelers, three wheelers, passenger vehicles and commercial vehicles. Two wheelers market of the country is the largest market of the world. The overall growth rate of this sector has been registered of 9.5 percent between 2006 to 2014. India' two wheelers company Hero MotoCorp is the world's largest two wheelers manufacturing company. Indian automobile sector has emerged a vibrant industry in the present scenario. This sector is shining with the rich profile of exports which are increasing year by year.

**Keywords:** Automobile Industry, Exports, Gross Domestic Product (GDP), Indian Automobile Manufacturers (SIAM),

## Introduction

Indian economy is a vibrant economy. Automobile industry is very important sector in the industrial economy of our country. This industrial sector is having large economic view from the point of view of revenue generation at the world level. This industry has been ranked at the seventh position all over the world on the basis of average annual production of vehicles. Automobile industry refers to the industrial corporations which are engaged in the designing, manufacturing, marketing and selling the auto powered vehicles. This sector is the basis of the economy of any country. Indian Automobile sector has produced 21.48 million vehicles in the year 2013-14. Such a big number of vehicles produces by the Indian automobile industry has a big impact on the economy. This sector contributes up to 4 % to the Gross Domestic Product (GDP) of the nation. According to the statistics released by the Society of Indian Automobile Manufacturers (SIAM), the sale of commercial vehicles grew 5.3% in January 2015 from its previous year's figure.

Exports refer to sell the products to foreign countries. The exports are the essential part of the foreign trade of any country. Countries promote the export business for maintaining optimum trade of balance. Export business is essential for the growth of economy as well as organizations. Earning from the exports is utilized in the development of economy. Government realized the problems due to lack of foreign exchange during the period of second Five Year Plan. Indian export business is helping the economic development by earning foreign capital. Exports of our country can be classified in to four categories viz. (i). Exports of agricultural and allied products, (ii). Exports of ores and minerals, (iii). Exports of Manufactured goods and (iv). Exports of Minerals fuels and lubricants. Indian automobiles' exports come under third category. India made exports worth Rs. 13844.44 crore in the month of April 2015. This industry is growing at the satisfactory speed. According to the report of India Brand equity Foundation, this industry will be the third largest industry in the world's automobile sector by the year 2016. The sector is expected to attain the annual sale of 6 million plus vehicles by the year 2020.

## Statement of Problem

The topic of this paper is related to the contribution of the Indian automobile sector in the export business. For designing the study to highlight this statement, the researcher studied the role of automobile sector in the Indian economy. Analysis has been made on the basis of data showing the export figures on yearly basis. Beginning of the paper is related to the introductory part of the topic. In the middle part of the study the position of the industry has been discussed to strengthen the role of the business in the exports. In the ending part, discussion has been designed on the basis of information and data studied in the paper.

## Data Collection and Design

This paper highlights the importance of the automobile industry at national level. The area of the study is very vast. It was not possible to select any particular industry for the study. This study is a general study and all the automobile areas like commercial vehicles, passenger cars and other domestic vehicles have been included for the purpose of this paper. Secondary data have been used for making the concluding view. The study material and data have been collected from various published and online sources. The inferences drawn on the basis of these informations cannot be applied to any particular segment of the automobile industry. This is the main limitation of this paper.

## Indian Automobile Industry

Indian automobile industry is growing at rapid rate. Indian automobile sector introduced itself in India in 1940. This industry has attained the average growth of 17 % for the previous years after the liberalization process of 1991. The automobile sector has attained the turnover of Rs. 165000 crores. 1.31 crore people are employed in this industrial sector in the direct and indirect way. Government collects Indirect taxes from this industry up to 17 %.The demand for all types of vehicles is increasing in the country at fast. This industry is at the seventh rank all over the world in case of

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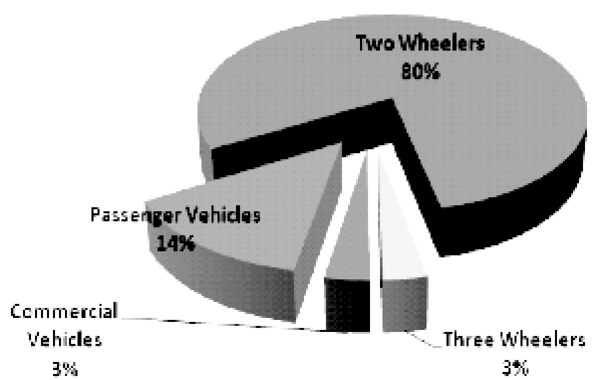
manufacturing 17.5 million vehicles every on average basis. According to the report of Deloitte, it is expected that this industry will take the position of world's third largest automobile manufacturer in 2020. Automobile industry in India is manufacturing mainly four types of vehicles viz. two wheelers, three wheelers, passenger vehicles and commercial vehicles. These categories include all type of vehicles like cars, jeeps, scooters, motorcycles, trucks and tractors etc. This industrial sector provides employment to directly and indirectly to 19 million people. According to the data released by the India Brand Equity Foundation, Indian automobile sector is manufacturing two wheelers type vehicles at large. This sector is manufacturing up to 5 % in the total manufacturing industry of India.

**Figure1: Market Volume of Automobile Sector in India (2014)**




**Source: Report of SIAM on Indian Automobile Industry Performance, submitted in the 20th Automotive Dialogue in Beijing, China from22 to 25 April 2014.**

Data depicts in the Figure 1 that, two wheelers segment is having 80 % market share in the total production while three wheelers and commercial vehicles are having only 3 % share in the total. The export business of passenger vehicles is growing day by day. Passenger vehicles include utility vehicles, passenger cars and multi-purpose vehicles. Market share of passenger vehicles in the year has been reported by the SIAM at 14%. Two wheelers industry comprises mainly five leading manufacturers who are occupying 94% share of the market. These leading players are Hero MotoCorp, HMSI, Bajaj Auto, TVS Motor, and India Yamaha. The Maruti Suzuki, Hyundai Motor, Mahindra & Mahindra, Tata Motors represent passenger vehicle manufacturing segment and Honda Cars are playing leading role in the market by comprising 80% share in the total market.

**Table1: Share in the Vehicle Segment of the Leading Manufacturers in Automobile Industry**

| Vehicle-Segment | Leading Manufacturers in Automobile Industry | Share in the Vehicle Segment |
|---|---|---|
| Two-Wheelers | Hero MotoCorp | 41% |
| | Honda Motorcycle and Scooter India Pvt. Ltd. (HMSI) | 24% |
| | Bajaj Auto | 14% |
| | TVS Motor | 12% |
| | India Yamaha | 3% |
| Passenger Vehicles | Maruti Suzuki | 42% |
| | Hyundai Motor | 15% |
| | Mahindra & Mahindra | 10% |
| | Tata Motors | 8% |
| | Honda Cars | 5% |
| Three-Wheelers | Bajaj Auto | 39% |
| | Piaggio Vehicles | 35% |
| | Mahindra & Mahindra | 13% |
| | Atul Auto | 8% |
| | Scooters India | 3% |
| Commercial Vehicle | Tata Motors | 50% |
| | Mahindra & Mahindra | 24% |
| | Ashok Leyland | 13% |
| | VE CVs Eicher | 5% |
| | Force Motors | 3% |

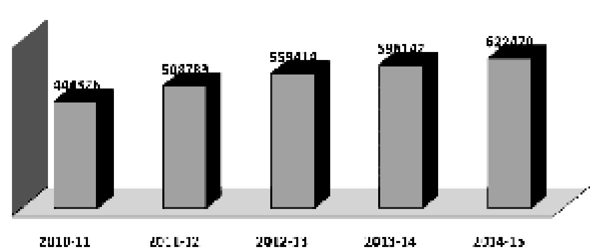
**Source: Report of SIAM on Indian Automobile Industry Performance, submitted in the 20th Automotive Dialogue in Beijing, China from22 to 25 April 2014.**

The Bajaj Auto and Piaggio vehicles lead three wheelers market. Bajaj Auto organization is manufacturing 39 % vehicles of the total while Mahindra & Mahindra is manufacturing 35 % vehicles of the total production. Tata Motor is leading the commercial vehicle manufacturing by contributing the production of the vehicles up to 50%. Mahindra & Mahindra also holds significance market in the commercial vehicle manufacturing. This company comprises 24 % share in this segment of the industry.

**Export Business of Indian Automobile Industry**

Export business of Indian Automobile industry has grown rapidly. This industry has established sound market at international level. Main countries which are having the market of Indian vehicles include as SAARC countries, European Union like Germany, Belgium, UK, the Netherlands and Italy and Middle East and North American countries. Passenger vehicles export market represents a sound position in the automobile export business. Indian passenger vehicles have gained wide reputation in the international market all over the world.

**Figure 2: Exports of Passenger Vehicles**




**Source: SIAM**

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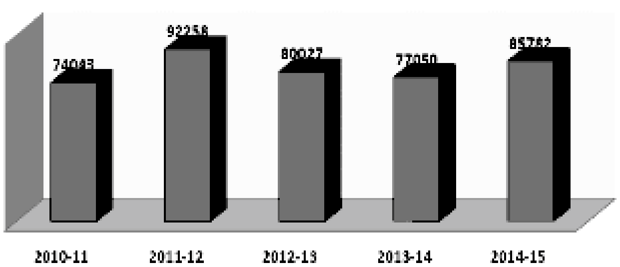
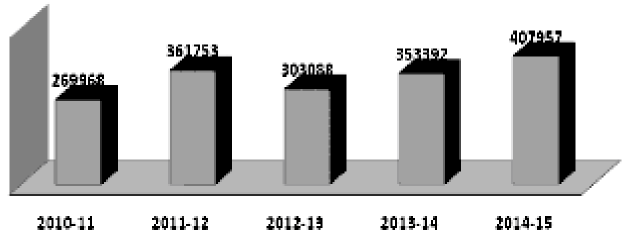
In this segment the export of passenger cars is increasing on yearly basis rapidly. In 2010-11, total 444326 vehicles were exported and this figure reached to 622470 in 2014-15. This growth is showing positive effect on industrial economy which is helpful in earning foreign exchange. This foreign capital can be employed for the development of the economy. Commercial vehicle exports also showing positive growth as per following chart. By the year 2020, it is expected that the car market of our country will attain the production of six plus million cars annually. Indian car industry is catching the speed these days tremendously as the result of which global car manufacturers are investing in the country with the open hands. Many of the foreign manufacturers are planning to establish export-oriented production units in the country.
Many foreign investors namely Suzuki, Nissan and Toyota of Japan, Volkswagen and BMW of Germany, Renault of France, Hyundai of South Korea, General Motors and Ford of USA have established their manufacturing units for the purpose. Indian technology and engineering has made its unique position at the world level. Tata automobile has set up an example of technology and engineering by launching its Nano car for the lower income group customers.
Main exporters of passenger cars in the country include Tata Motors, Maruti Udyog and Hyundai Motor. Commercial vehicles are having main segment at international level. Main vehicles under this category can be classified as light commercial vehicles, medium commercial vehicles and heavy commercial vehicles.

**Figure 3: Exports of Commercial Vehicles**



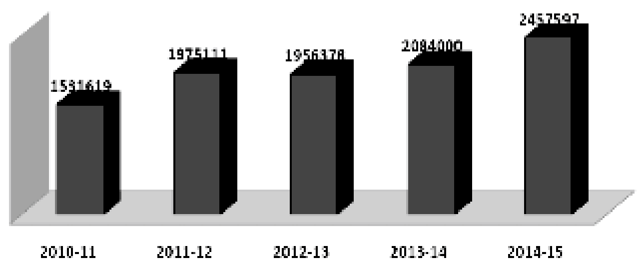

**Source: SIAM**
In 2011-12, the commercial vehicle exports registered high growth as compared to previously year but after that the business decreased for next two years but again in 2014-15, the trend increased by exporting 85782 vehicles which is more than that of previous year's data of 77050 vehicles. Exports of three-wheeler are doing good business from the previous five years. It is expected that in the next 5 years, the tractor sales of the tractors in the country will grow at CAGR of 8.9 %. The main reason behind this growth will be the emergence of international market of indigenous tractors in foreign countries. Export business of three wheelers is having important place in the economy. Three wheelers are categories under two categories viz, passenger carriers and goods carriers. Main exporters of light, medium and heavy commercial vehicles are Mahindra and Mahindra and Tata Motors. TAFE tractors has well established market in abroad.

**Figure 4: Exports of Three-Wheelers**




**Source: SIAM**
The international market of Indian three-wheelers also shining by exporting a large number of vehicles every year. In the year 2014-15, total number of three wheelers which were exported from the country reached up to 407957. This figure was at 269968 in 2010-11. This is a big achievement in the modern era of global competition when there is technological development all over the worlds. Two-wheelers market of the country is shining all over the world. This segment is expected to attain the growth rate at a CAGR of 9 % up to 2020. Two wheelers of Indian manufacturers are world famous for the design and mileage. Mopeds, scooters and motorcycles are the main types of two-wheelers in India.

**Figure 4: Exports of Two-Wheelers**




**Source: SIAM**
Two wheelers market of the country is the largest market of the world. During the last years the production of this segment has increased from 8.5 million units to 15.9 million units annually. The overall growth rate of this sector has been registered of 9.5 percent between 2006 to 2014. India' two wheelers company Hero MotoCorp is the world's largest two wheelers manufacturing company. Two wheelers market of India is very charming. In 2014-15, Indian automobile industry established a record by exporting 2457597 two wheelers. There is big demand of made in India two wheelers in international market. Bajaj Auto is the main exporter of two wheelers in the country.

**Discussion**
India is a developing country. Exports from India are structured according to the economic scenario. Indian has been an agricultural nation from the ancient times.

Traditionally, our country has been engaged in the exports of agricultural goods like raw materials, food grains, handloom products, cotton and various agriculture based products. But the share of agricultural in the export business has been decreasing day by day. Therefore, in this changing scenario, our exporters have to concentrate on other areas. For encouraging exports of automobile industry the Ministry of Heavy Industries and Public Enterprises, Government of India in its Automotive Mission Plan 2006-2016 as under, have suggested some measures which can be effective for the export promotion.

1. Maintaining a three-tier tariff structure for the material of all the three types viz, raw, semi-finished and finished.
2. VAT should be applied all over the nation by withdrawing other central and state taxes on manufacturing industry for strengthening internal reforms.
3. Tariffs should be reduced on raw material and comprehensive GST should be implemented.
4. Special Auto-Component Parks (SAPs) should be created for promotion of exports.
5. Exemption from sales tax and duty exemption on inputs should be suitably addressed in the context of special economic zones (SEZs).
6. The export oriented schemes like DEPB, EOU and EPCG should be made compatible with the World Trade Organization (WTO).
7. Automobile industry and the Government should explore new export markets.
8. Encouragement should be given to specific initiatives under the Market Access Initiative MAI).

Indian automobile sector has emerged a vibrant industry in the present scenario. This sector is shining with the rich profile of exports which are increasing year by year. It can be said that this industry is helping the process of economic growth of the country with the passion.

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# "Consumer behavior towards online shopping in India"

***Sonal Kala**
****Dr. Premila Jain**

**Abstract**

Internet is one component which has recently become the key ingredient of quick and rapid lifestyle. Be it for communication, connecting with people or for official purposes, 'internet' has become the central-hub for all. While interactions in the real world shopping are mainly based on face-to-face activities between consumers and service providers, interactions in electronic commerce take place mainly through the retailer's website. This study investigated the relationship between various characteristics of online shopping and consumer purchase behavior. Results of this study shows about the consumer behavior towards online shopping and future of online shopping in India.

**Keywords:** Online shopping, E- commerce, Consumer behavior

## I. Introduction

Online shopping or electronic shopping is a part of electronic commerce which allows consumers to directly buy goods or services from a seller over the internet. Michael Aldrich invented online shopping concept in 1979. The prospect of online marketing is increasing in India with the increasing internet literacy. Online shopping is also known as: e-web-store, e-shop, e-store, Internet shop, web-shop, web-store, online store, online storefront and virtual store. An online shop evokes the physical analogy of buying products or services at a bricks-and-mortar retailer or shopping center; the process is called business to- consumer (B2C) online shopping. The popular online retailing corporations are Myntra, Jabong, Alibaba.com, Snap deal, Amazon.com and e-Bay.

With the growth of online shopping, the general retailers also make available their products on online shopping sites to capture the market more. The five dominant factors which influence consumer perceptions for online shopping are information, ease of use, satisfaction, security, Proper utilization.

## II. Review of Literature

Ramírez Nicolas (2010) state that "The Internet has changed many facets of our daily lives: the way we relate and communicate with one another, how we interact with a bank, read newspapers or watch television. Even the way we buy and sell. These changes have occurred due to the constant flow of companies offering new business models and innovative formulae. Discount coupons have always been a powerful marketing tool. Whether inserted in printed media or posted through letter boxes, they attracted new customers and were also offered at the time of purchase to promote consumer loyalty by encouraging repeat purchases.

According to Sharma and Mittal (2009) in their study "Prospects of e-commerce in India", mentions that India is showing tremendous growth in the Ecommerce. Undoubtedly, with the population of millions of people, online shopping shows unlimited potential in India. Today E-commerce is a common word in Indian society and it has become an integral part of our daily life. There are websites providing a number of goods and services. Then there are those, which provide a specific product along with its allied services. Multi-product ecommerce-

These Indian E-commerce portals provide goods and services in a variety of categories. To name a few: Apparel and accessories for men and women, Health and beauty products, Books and magazines, Computers and peripherals, Vehicles, Software, Consumer electronics, Household appliances, Jewellery, Audio/video, entertainment, goods, Gift articles, Real estate and services.

Donald Rogan (2007) explains the relationship between consumer behaviour and marketing strategy. He states that strategy is about increasing the probability and frequency of buyer behaviour. Requirements for succeeding in doing this are to know the customer and understand the consumer's needs and wants. The expectation-confirmation model (Oliver 1980), on the other hand, focuses on the post-purchase behaviour. It is a widely used model in the consumer behaviour literature, particularly in explaining consumer satisfaction and repeat purchase.

Satisfaction is the central notion of this model and it is formed by the gap between expectations and perceived performance (Oliver 1980). The expectation-confirmation theory suggests that if the perceived performance meets one's expectation, confirmation is formed and consumers are satisfied.

Bhattacherjee (2001) stated that satisfied users are more likely to continue the IS use. Thus, we point that adoption and continuance are connected to each other through several mediating and moderating factors such as trust and satisfaction.

Benedict et al (2001) in his study on perceptions towards online shopping reveals that perceptions toward online shopping and intention to shop online are not only affected by ease of use, usefulness, and enjoyment, but also by external factors like consumer traits, situational factors, product

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characteristics, previous online shopping experiences, and trust in online shopping.
According to Vrechopoulos et al. (2001) youth are the main buyers who used to buy products through online. Dholakia and Uusitalo (2002) study examined the relationship between age and Internet shopping; found that younger consumers reported more linen to the online shopping. They also found that younger consumers searched for more products online and they were more likely to agree that online shopping was more convenient.

Venkatesh (2000) reported that perceived convenience offered by Internet Vendors has a positive impact on consumers' attitude towards online shopping, as they perceive Internet as a medium that enhances the outcome of their shopping experience in an easy way. Online shopping holds a great potential for youth marketers.

## III. Objectives

To compare the perception of customer towards online shopping among male and female management students of Jaipur National University, Jaipur , Rajasthan)

## IV. Hypothesis

**H01:** There is no significant difference between the customer perception towards online shopping between male and female management students.

**H02:** There is a significant difference between the customer perception towards online shopping between male and female management students.

## V. Research Methodology

Methodology is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. This study is based on primary data collection through questionnaire from Management students of Jaipur national university, Jaipur (Rajasthan).
**Research Type: -** Exploratory
**Sampling Technique: -** Convenience Sampling
**Sample Unit:-** Management students of Jaipur national university, Jaipur (Rajasthan)
**Sample Size:-** 100 (50 Male Students and 50 Female Students)
**Tools for Data Collection:-** Questionnaire based on 5 point Likert Scale
**Tools for Data Analysis:-** Independent sample test

## VI. Results

The collected data was analyzed with the help of Independent sample test (Levene's Test for Equality of Variances and t-test for Equality of Means). Table 1 depreciates that p value is .990 therefore null hypotheses H01 cannot be rejected at 5% level of significance. Therefore no significant difference was found as far as the customer perception towards online shopping among male and female management students of Jaipur National University, Jaipur (Rajasthan) is concerned.

**Group Statistics**

| | VAR02 | N | Mean | S.D. | Standard error mean |
|---|---|---|---|---|---|
| VAR01 | Male | 50 | 3.05 | 0.294 | 0.042 |
| | Female | 50 | 3.16 | 0.259 | 0.037 |

**Table 1**

## VII. Conclusion

Online shopping has become extremely popular over the last decade. Utilized mostly by the "Net- Generation", this service is extremely convenient. Although online shopping can be very convenient and beneficial there are also some potential problems that can arise.
Consumers have been seen to exhibit different buying behaviours when shopping online than, when they are shopping in a physical retail stores. After applying statistical techniques it was found that there is no significant difference among the response of male and female management students of Jaipur National University, Jaipur (Raj.). This makes it imperative that retailers have to study the consumer behaviour and make changes in order to remain profitable and successful. The overall results prove that the respondents have perceived online shopping in a positive manner. This clearly justifies the project growth of online shopping. The results can also be used by various organizations to identify their target customer segments. India has a great future in online shopping.

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## IX. ANNEXURE

**(Independent Sample Test)**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the difference | |
| VAR001 | Equal Variances Assured | 0 | 0.99 | -2.026 | 98 | 0.045 | -0.112 | 0.055 | Lower -0.222 | Upper -0.002 |

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