Education is an ornament in prosperity and a refuge in adversity.

- Aristotle

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CONTETNTS

FROM EDITOR'S PEN

In recent years, the education system has undergone a transformation, teaching pedagogy is strengthened by research work thus making education a wholesome experience. The research based journal of (CU) Chandigarh University "CU Global Management Review" has evolved into a more comprehensive journal. This has added an extra mile to the academic exposure to our students, readers and contributors. The wealth of information shared through the journal has advanced our academic rigor to the next level of excellence. These collaborations reflect the broader spectrum of innovative measures that we undertake on continuous basis to ensure that good industry-ready talent steps out of CU.

This issue of "CU Global Management Review" Jan. - June 2015 Vol. 4 No. 1 comprises nine research papers on management and technology. The Journal provides a dynamic international forum for the exchange of ideas and dissemination of research in all functional areas of management, in both the service and the manufacturing sectors. The study on "The Selection Of 3G Service Providers among Indian Consumers: A Statistical Introspection" brings out clearly that the major factors influencing the choice of service providers were value added services, low cost, speed, customer service. The second paper deals with the Impact of Behaviour of Foreign Capital Flows in the Indian Stock Market. Next study shows growth of Indian Banking with a Focus on Prime Determinants of Profitability, Emerging Issues and Future Outlook. Further the research paper "A study on the significance of Information Technology (IT) & IT Enabled Services (ITES) in Indian banking services" illustrates the role of IT in the growth experience of banking sector in India. Next paper deals with the A Study of "Glass Ceiling" In Indian Corporate Culture. The impact of Economic Reforms on India's Trade Balance and Foreign Exchange Reserve are explored in the subsequent article, followed by an article on Working Capital and Profitability trade –off in FMCG Industry a Study of Selected Companies. To dwell Upon the Constraints in the Smooth Transition of a Rural Undergraduate to an Urban Graduate a Research Paper on Major Constraints Encountered by Students Of rural Background with Emphasis on Language is presented in the Next Article. Factors of mobile applications affecting consumer buying behaviour are compared in the concluding article.

I am sure the readers of this journal will find reading the articles an enriching, stimulating and rewarding experience. I extend my best wishes to the writers who have contributed in gaining new insights to the issues.

It is my pleasure to invite you to join the Chandigarh University family and help us in our journey of building a resourceful society.

Dr (Col.) SPS Bedi
EDITOR

THE SELECTION OF 3G SERVICE PROVIDERS AMONG INDIAN CONSUMERS : A STATISTICAL INTROSPECTION

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ABSTRACT

The International Telecommunications Union (ITU) defines the third generation (3G) of mobile telephony standards IMT-2000 to "facilitate growth, increase bandwidth, and support more diverse applications". Urban consumers form a total of thirty percent tele- density of the total phone user –base in India thereby indicating a huge scope for future growth. The study was conducted with an objective to identify the factors influencing the selection of mobile phone service provider among urban users and also the role that demographic factors play in selection of 3G services. A structured questionnaire was drafted to collect data regarding the customer opinion on 3G services. The sample size of 150 was taken from Delhi and NCR. The data contains the personal details, demographic details and factors influencing customers to select the 3G service. To achieve the objective reliability test, factor analysis, KMO Bartlett's, Variance Analysis was conducted. This study brought out clearly that the major factors influencing the choice of service providers were value added services, low cost, speed, customer service. Call drop was observed to be the most important reason for switching over to other mobile phone service provider.

Keywords : Urban customers, Mobile phone service Providers, Network Coverage.

INTRODUCTION

Globalization has made drastic changes in world economy and it has offered loads of opportunities for business houses and industries especially telecommunication industry. 3G or 3rd generation mobile telecommunications, is a generation of standards for mobile phones and mobile telecommunications services fulfilling the International Mobile Telecommunications-2000 (IMT — 2000) specifications by the International Telecommunication Union . The main enabler of modern economy is

Telecommunication sector and its growth is critical for acceleration of the economic development of any country. The government of India recognizes that the provision of a world class telecommunications and information infrastructure is the key to rapid economic and social development of the country. Telecommunication is critical not only for the development of the information technology industry but also has widespread implications for the entire economy of the country. Cellular Mobile services .There has been unhindered growth in the Indian telecom market.

The government of India run Bharat Sanchar Nigam ltd (BSNL) launched the 3G enabled mobile and data services in the year 2008.MTNL, another government of India owned company launched 3G in Delhi and Mumbaiafterwards.The auction of 3G wireless spectrum was announced in April 2010 all over the country.On November 5,2010 Tata DoCoMo,was the first private sector service provider that launched 3G services,Reliance Communications was the second company to join the league.Bharti Airtel launched their 3G services in Bengaluru on the 24th of January 2011 it later launched its 3G services in Delhi and Jaipur on March 4, 2011. AIRCEL another service provider launched its 3Gservices in Kolkata in the month of February. Vodaphone and Idea are other service providers who would be launchingtheir 3Gservices bythe first quarter of 2011.3G is a third generation cellular mobile technology.The third generation is a far more advanced technology than the earlier ones. 3G mobile phones not only have the feature that they are most known for but also have conventional voice, facts and data services , video and data services which can be used while on the move but are also supported by higher resolution video. It includes virtual banking and online billing, access to internet, online entertainment, video conferencing and other mobile office services. 3G technologies in your mobile phone are not only limited to help you out while you are on the move but also when you are stationed at home. 3G has many different applications, such as it can help you shop for your daily needs way in advance at your local store, you can order your goods which would be saving a lot of your precious time.

With 3G on the horizon, things are going to change, it will completely change the way people today communicate with one another. A user would find multiple new ways of using his mobile phone. It wouldn't be a dream anymore to watch your favourite television show on your phone and have a video conference with your near and dear ones or business associates who have access to 3G technology. 3G technology has a lot to offer in terms of new technique and latest advancements in the field of telecommunication like the amazing teleconferencing, but there are a few things that make 3G telecommunication technology as disadvantageous, the main being 3G phones are far more expensive another disadvantage is that 3G phones can avail the video conferencing feature only with other people who are 3G subscribers.

3G as a product has revolutionized the Indian telephony market,through 3G Indian consumer of today get true mobile broadband with better than before speed faster data transfer ,enhanced internet usage on the move .3G not only brings features like video calling but also it will be able to garner a lot of respect for the Indian telecom sector. Indian consumer is a whole new market which is hungry for purchasing, downloading features and applications for their mobiles. Already the consumer of today is downloading songs, wallpapers, ringtones, but with advent of 3G, it will be a different ball game all together. The late arrival of 3G technology in the Indian market may prove beneficial for the country as most operators are

already aware of the loopholes and the factors inhibiting the adoption of 3G services in the international markets.

CHALLENGES OF ADOPTION AND IMPLEMENTION OF 3G SERVICES

There are number of challenges that need to be overcome and rationally addressed by the Indian operators for successful implementation of 3G adoptions and implementation. Rules and regulations set up by the TRAI and the Indian government, such as pricing issues for the auction of 3G spectrum and standards for mobile number portability, could impede the pace of adoption of 3G services in India. The Indian consumer is highly price sensitive in terms of adopting new services, thereby affecting the widespread adoption of 3G services. The relatively higher price of 3G-enabled handsets as compared with its non-3G counterparts may inhibit the adoption of 3G services in the Indian market.3G Subscriber Base believes that the number of 3G subscribers in India will grow at a rapid pace by 2013, See (figure 1). This growth will be fuelled primarily by a decline in the price of 3G services, resulting from fierce competition among private players.

The launch of 3G services in India will improve consumers' experience by providing high-speed Internet access and better quality of voice and data services. The services will be available in both urban and rural areas, with initial focus on urban customers and will penetrate more in urban sectors, See (figure 2). The following are some of the major factors that are likely to drive the adoption of 3G services in India: Demographic Factors, Income Level, Lower pricing strategy and higher disposable income of customers will result in increasing adoption of 3G services. Service Domain – 3G services such as video telephony, banking services, mobile- learning and mobile- governance provide convenience and mobility. Easy access to banking services is expected to attract urban consumers, while mobile governance will be more popular among rural consumers. The growth in the 3G subscriber base will be driven primarily by the adoption of the service by the Urban (Above Poverty Line) customer segment. This segment is expected to be the fastest adopter of this new technology,(Khanna& Gupta ,2009).

OBJECTIVES OF THE STUDY

1) To study the factors influencing the selection of mobile phone service provider and 3G services.
2) To study the inter-relation between social, economic and entertainment factors in selection of 3G service.

REVIEW OF LITERATURE

Clark, Robert (2004) discussed the latest mobile phone technology, 3G or 3GSM in Asia. Increase in the number of mobile phones offering 3G in the marketplace; Companies who have decided to focus on the new technology; Advantages of 3G. Pagani (2004) conducted a study to identify the determinants of adoption of 3G mobile multimedia services and found that perceived usefulness, ease of use, price, and speed of use are the most important determinants of adoption of 3G multimedia mobile services.3.

Erlanger, Leon (2006) outlined the advantages of 3G over wireless-fidelity by citing several 3G subscription options. Et,el (2009) analyzed the mass adoption of third-generation (3G) mobile phones that is hypothesized to comprise three consumer perceptions: new technology, new service, and new handset. Based on the theoretical framework of a consumer's decision making process, an empirical study of the mass adoption of 3G mobile phones in Taiwan was conducted. This study demonstrated that perceived utility of a new mobile service was a key factor that resulted in mass adoption. Further, it was found that perceived utility of a new handset directly stimulate consumers to purchase 3G mobile phones. Perceived risk and perceived expense are not negatively correlated with intentions as hypothesized. Moreover, perceived no need was another key factor that inhibited adoption and purchase intention.

Chong,et el (2010) analyzed the factors influencing the usage of 3G technology in Malaysia. By extending the Technology Acceptance Model (TAM) and Diffusion of Innovation (DOI) model, this study found that perceived advantages, perceived ease of use, variety of service and social influence are able to predict the adoption of 3G among Malaysian consumers. This study allows 3G service providers to understand which factors influenced the usage of 3G in Malaysia. Other developing countries that plan to deploy 3G can also formulate business strategies using the results from this study.

Ramnath (2010) discussed the move of the telecommunication companies to embrace third-generation (3G) applications and technologies in India. It outlines the advantages of 3G services which provide better quality voice calls as well as 10 times more efficient use of spectrum than the second-generation (2G) phone systems. However, it mentions the skepticism of the phone service and equipment vendors as well as the handset manufacturers regarding the complexities of implementing the system. Suki (2011) analysed the factors influencing subscribers' intention towards using 3G mobile services with the Technology Acceptance Model (TAM) as the guiding principle. Also, Perceived Usefulness was found as a key factor influences subscribers' intention to use 3G mobile services.

RESEARCH METHODOLOGY

Achieving accuracy in any research requires in depth study regarding the subject. As the prime objective of the project is to analyze the factors that make customers subscribe for 3G services, Primary & Secondary both data was used wherever needed.

The population of the study covered over all the network connection subscribers in Delhi and NCR. An individual respondent were the sampling element.The sample size was 150 respondents. For the purpose of identifying the underlying factors which leads to the selection of 3G service, a self designed questionnaire was used.

Following are the tools and techniques used for the analysis:

1) The measure was standardized through the calculation of reliability.
2) KMO and Bartlett's test was carried out in order to help arriving at a decision whether factor analysis can be conducted or not.
3) Factor Analysis was carried out in order to identify the key underlying factors that are responsible for the consumer preference regarding the selection of 3G.

4) Total variance analysis
5) Related Component Matrix

RESULTS AND DISCUSSION

This section deals with the findings related to classification of respondents on the basis of type of billing plan, duration of subscription, mobile number service provider, company wise classification of respondents for perceptions towards various parameters of quality of service. The data that is represented shows that the sample is male dominated as male respondents are 62.7% of the total sample size, see (Panel1: Table 1a). The respondents age analysis shows that most of the respondents are in the 22 to 25years of age group, i.e about 77.3% of the sample. Looking at the network connection used by the respondents it is found that majority of the respondents are Airtel subscribers i.e. 37.3% and it is closely followed by Vodafone subscribers which is 28.7%. Majority of the respondents were subscribers for prepaid connection i.e. 78% .In order to accurately capture the customer's response reliability analysis is carried out. See (Panel1: table1b) the Cronbach's Alpha value is .812 which is greater than 0.5 thus we can safely conclude that the sample size and the data collected are reliable and also the reliability is shown to be good using all 13 items.

FACTORS INFLUENCING THE SELECTION OF 3G SERVICE.

After the analysis we can find the descriptive statistics of mean and standard deviation of various factors that influence the selection of 3G services by the consumers in Delhi. It has been found that low cost rate (with Mean=5.97) has been an important factor that drives customers to use 3G services on their handsets. It is then followed by video calling (with Mean=5.73), which implies that other than cost, customers also, want to use 3G for video calling service. Thereafter, Followed by that customers use 3G services for faster audio and video downloads (with Mean=5.43). Using 3G in order to get fast internet connection has found place among one of the reasons why the customers want to use 3G, it had scored a (Mean=5.10). Using 3G service for better voice clarity has a high standard deviation of 1.803 which shows that some of the customers choose 3G for voice clarity, while others don't, as this factor shows high variation, See (Panel 2: Table No.2a).

KMO and Bartlett's test scores varies between 0 to 1. Closer the score is to 1 the better it is considered. This test is done to arrive at a decision whether to conduct Factor Analysis or not. As in the case above KMO value is .826 which is greater than 0.5 and a significant Chi-Square value tells us that we can proceed with the Factor Analysis, see (Panel3: Table3b) .On conducting the variance Analysis we can see in (Panel 2:Table No.2b) that 62.895% of the cumulative variance is achieved with 3 components, i.e. we can summarize the 13 variables into 3 major factors, see (Panel 3:Table 3c). After a close examination of all the factor loadings in (Panel 3:Table No.3c), the above 13 variables were found to be associated with the respective dimensions as shown in the (Panel 3:Table 3a). From Table No.3a it can be analyzed that:

- The social factors are interrelated to the dimensions like value added services, low cost, faster Internet and better network.

- The ability to watch live TV and ability to play games with the help of the 3G services play an important role in showing how the factor of entertainment is related to the use of 3G services, however 3G is not easy to use.
- When it comes to the economical and convenience value related to the 3G services live information on the mobile supplemented by better customer care and less call drop shows how 3G is a technology for the future.

CONCLUSION AND RECOMMENDATIONS

The study highlighted that the respondents considered value added services, low cost, faster internet, better network, gaming, watching Live TV, Live information on Mobile, Better Customer care and less call drop as relatively important factors influencing the selection of a Mobile phone service Provider and 3G service. The factors which were taken into consideration were social, economic and entertainment, so for the mobile service operators to create a wide customer base through their 3G services, they should aim at providing low cost, better connectivity and better customer care services. The respondents relatively perceived comprehensive network coverage i.e. less call drop as more important factor than other factors. The existing mobile phone service providers should improve their network coverage to satisfy their present subscribers and add new ones. The mobile phone service providers should offer recharge schemes on the basis of average monthly expenditure capacity of their subscribers. The company should market its offerings highlighting attractive pricing. As the study says the customers prefer low cost so , the service providers should take care of this also and minimize their billing inaccuracies in order to retain their customers.

ANNEXURE:
FIGURES

FIGURE 1

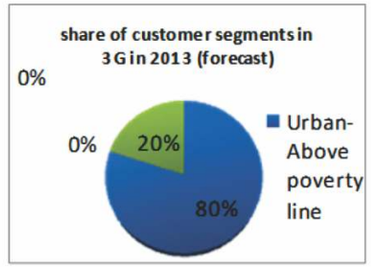
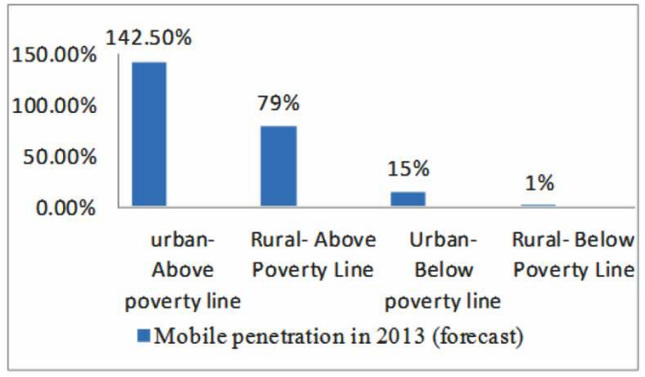


FIGURE 2



Panel -1

Table No.1a: Details of Respondents

	Categories	Count	Percentage
Gender	Male	94	62.7
	Female	56	37.3
Age	18 to 21 years	22	14.7
	22 to 25 years	116	77.3
	26 to 31 years	10	6.6
	32 to 56 years	2	1.4
Network	Airtel	56	37.3
	Vodafone	43	28.7
	Idea	15	10.0
	Reliance	14	9.3
	Aircel	8	5.3
	Tata Indicom	4	2.7
	MTNL/BSNL	9	6
	Virgin	1	.7
Plan	Prepaid	117	78
	Postpaid	33	22

Table No.1b: Reliability Analysis

Cronbach's Alpha	No. of Items
.812	13

Panel -2

Table No. 2a: Factors influencing the selection of 3G service.

	Mean	Std. Deviation
Value Added Services	3.31	1.259
Low cost	5.97	1.145
faster Internet	5.10	1.151
Gaming	4.10	1.218
video calling	5.73	1.183
easy to use	2.86	1.176
better network	3.58	1.057
watching live TV	3.89	1.157
faster audio and video downloads	5.43	1.198
better voice clarity	3.63	1.803
live information on Mobile	4.67	1.065
better customer care	3.41	1.050
less call drop	3.65	1.068

Table No.2b: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.692	36.096	36.096	4.692	36.096	36.096	4.326	33.277	33.277
2	2.038	15.675	51.771	2.038	15.675	51.771	1.947	14.977	48.253
3	1.446	11.124	62.895	1.446	11.124	62.895	1.903	14.641	62.895
4	.813	6.254	69.149						
5	.697	5.361	74.509						
6	.669	5.149	79.658						
7	.511	3.934	83.592						
8	.482	3.709	87.301						
9	.416	3.198	90.499						
10	.406	3.127	93.626						
11	.310	2.382	96.008						
12	.294	2.260	98.267						
13	.225	1.733	100.000						

Extraction Method: Principal Component Analysis.

Panel -3

PANEL 3SOCIAL FACTORS	ENTERTAINMENT	ECONOMCAL AND CONVINIENCE
VALUE ADDED SERVICES	GAMING	LIVE INFORMATION ON MOBILE
LOW COST	WATCHING LIVE TV	BETTER CUSTOMER CARE
FASTER INTERNET	EASY TO USE	LESS CALL DROP
BETTER NETWORK		

Table No.3b :KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.826
Bartlett's Test of Sphericity	Approx. Chi-Square	772.560
	Df	78
	Sig.	.000

Table No.3c: Rotated Component Matrix

	Component		
	1	2	3
Value Added Services	.808	-.033	.094
Low cost	.795	-.014	.009
faster Internet	.859	.021	-.005
Gaming	.206	.780	.085
video calling	.538	.294	.046
easy to use	-.013	.792	.089
better network	.783	.251	-.086
watching live TV	.452	.608	-.049
faster audio and video downloads	.727	.227	-.135
better voice clarity	.781	.151	-.034
live information on Mobile	-.112	.338	.605
better customer care	.003	.005	.855
less call drop	.046	-.055	.867

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BEHAVIOUR OF FOREIGN CAPITAL FLOWS IN THE INDIAN STOCK MARKET

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ABSTRACT

Foreign investments have gained a significant role in the Indian stock market. The indicators of stock market performance, that is, Sensex and Nifty reached their highest peaks and fall with the dawn of 21st Century. The present paper attempts to analyse the linkages between the trends of foreign capital flows (in the form of Foreign Institutional Investors and Foreign Direct Investments) and the performance of stock market by studying the impact of FDI and FII on Indian stock market. BSE Sensex, S&P CNX Nifty have been used as the indicators of stock market performance. Annual closing values of Sensex and Nifty from 2000-01 to 2014-15 were used for the purpose of study. Further, a correlation analysis has been made between the variables to study the nature and extent of relationship between them. Multiple Regression, ANOVA, Percentages have also been calculated for the analysis. The results indicated that the foreign capital flows in the form of FII and FDI have a significant impact on the Indian stock market during the period of the study.

KEY WORDS: Foreign Institutional Investors, Foreign Direct Investments, BSE Sensex, S&P CNX Nifty etc.

INTRODUCTION

The reform process in India was initiated with the process of economic liberalisation in the early 1990s. Massive reforms were introduced with the implementation of LPG policy. The policy framework was meant to encourage the inflow of foreign capital into the country. Various restrictions and legislation involved in foreign trade have now been done away with. Globalisation of the economy has led to double digit economic growth and also fostered economic integration.

A favourable business environment was developed in India after the reform process in 1991, when the Indian government opened the doors to foreign capital. Consequently the policies were drafted so as to stimulate the foreign capital so as to fulfil the capital requirements of the nation.

Any investment which flows from one country into another may be in the form of FDI or FII. The foreign investment in which the investment is made through the stock exchange is known as foreign institutional investment.

Whereas, FDI refers to an investment made by a company based in one country into another country by taking significant degree of control over the company into which the investment is being made. FDI is

considered to be better than FII investments since the former involves direct investment into another country. In case of FDI, direct investment is targeted into a specific enterprise so as to increase its productivity/capacity or to change its management control, whereas FII investments direct the flow of funds into the secondary market, thereby increasing the capital availability in the economy as a whole. FDI tends to be comparatively stable form of foreign investment than the FII investments. Apart from bringing capital, FDI also brings better management, innovative abilities, corporate governance practices and technological transfers. Cumulative amount of FDI flows into India (From April 2002-February 2015) were US$ 3,64,785 mn. FDI inflows into India during financial year 2014-15 (April 2014- Feb2015) stood at US $41,223 mn. Services sector attracted highest percentage of total inflows, being 17% of the total FDI inflows.

The entry of foreign institutional investors was permitted by the Union Government with a view to encourage the growth of capital market and also to attract the flow of funds by foreign investors in India. FIIs are allowed to invest in all the securities which are traded on the primary and secondary markets including the securities which are listed or to be listed on the stock exchanges including the derivatives and schemes floated by domestic mutual funds. The original guidelines relating to FIIs were issued in September 1992. Subsequently, SEBI (Foreign Institutional Investors) Regulations, 1995 were notified by the Securities and Exchange Board of India (SEBI) in November 1995.

Over the years, SEBI allowed different types of FIIs to operate in the Indian stock markets. They include institutions such as asset management companies, pension funds, foundations, university funds, endowments, investment trusts, mutual funds, nominee companies, charitable trusts/societies and incorporated/institutional portfolio managers with a sound track record. Subject to the fulfillment of certain conditions, Proprietary funds have also been permitted to make investments in India through the FII route.

Under the portfolio investment scheme, NRIs/ PIOs/ OCBs are authorised to acquire shares/debentures the primary and secondary capital markets in India through stock exchanges in India. The strong inflows in the recent months have taken the cumulative net investments of FIIs into India close to $197 billion, while in rupee terms is a bit away from Rs. 10 lakh crore level. There are over 1,700 registered FIIs in the country, along with close to 6,400 sub-accounts. (The Hindu)

The FIIs has been playing a crucial role in improving the infrastructure of the Indian stock market. The capital requirement for the growth of any stock market is fulfilled by the funds brought by these class of investors. Further, they are contributing significantly to the foreign exchange inflows since the funds from foreign direct investments and multilateral financial institutions are not sufficient. However, FII investments are considered to be volatile and market driven, yet the inflow of foreign funds by FIIs are essential to ensure steady quantum of investments in the Indian stock market. The present paper attempts to analyse the trends and impact of foreign Capital flows (in the form of FII and FDI) in the Indian capital market.

RESEARCH METHODOLOGY

Scope of the study

The period of the study is from 2000-01 to 2014-15. BSE Sensex and CNX Nifty have been used as a proxy for the Indian stock Market.

Data Collection

The present study is based on secondary sources of data. The data regarding FDI and FII was collected from the website of Department of Industrial Policy and Promotion. The movements of Sensex were traced from the website of BSE whereas the data regarding NSE was collected from yahoofinance.com.

STATISTICAL TOOLS AND TECHNIQUES

Analysis of investments by FIIs and FDI has been made for the purpose of the study. Coefficient of Correlation, Multiple Regression, ANOVA and Percentages have been calculated for the analysis. SPSS Software has been used for the purpose of analysis.

Coefficient of Correlation was applied to study the extent and direction of relationship between foreign capital flows and Indian stock market returns. Multiple regression was applied to evaluate the effect of FII and FDI (independent variables) on the dependent variables (BSE and NSE).

Two separate model equations were framed. The variables for the purpose of model building can be

	Independent variable	Dependent Variable
MODEL 1	FDI, FII	BSE
MODEL 2	FDI, FII	NSE

So, the two model equations can be expressed as:
BSE SENSEX = a + b1 (FDI) + b2 (FII)

CNX NIFTY = a + b1 (FDI) + b2 (FII)

ANALYSIS OF DATA

Amount Invested by Foreign Institutional Investors and Foreign Direct Investments

TABLE-1

Amount Invested by Foreign Institutional Investors and Foreign Direct Investments

	FIIs		FDI		Aggregate
Year	**Amount (US$ mn)**	**% in relation to aggregate**	**Amount (US$ mn)**	**% in relation to aggregate**	**Amount**
2000-01	1847	42.85	2463	57.15	4310
2001-02	1505	27.02	4065	72.98	5570
2002-03	377	12.23	2705	87.77	3082
2003-04	10918	83.31	2188	16.69	13106
2004-05	8686	72.96	3219	27.04	11905
2005-06	9926	64.18	5540	35.82	15466
2006-07	3225	20.52	12492	79.48	15717
2007-08	20328	45.27	24575	54.73	44903
2008-09	-15017	-91.68	31396	191.7	16379
2009-10	29048	52.93	25834	47.07	54882
2010-11	29422	57.91	21383	42.09	50805
2011-12	16812	32.37	35121	67.63	51933
2012-13	27582	55.16	22423	44.84	50005
2013-14	5010	17.09	24299	82.91	29309
2014-15	17157	37.32	28813	62.68	45970

Source: DIPP Factsheet on FDI, Annual report of SEBI for different years.

Table 1 shows that the percentage of investments by FIIs and in the form of FDI followed a fluctuating trend during the study period. It can be observed from the table that FII investments were greater than the FDI in 2003-04, 2004-05, 2005-06, 2009-10, 2010-11 and in 2012-13.

On the other hand FDI was found to be greater than FII in the rest of the period of the study. During 2008-09, there were massive withdrawals of funds by FIIs due to global recession. However, FDI investments were found to be positive in the same year. In case of FDI, there was decline in investments in 2002-03, 2003-04, 2009-10, 2010-11 and in 2012-13 in comparison to the previous year. In case of FII, net investments by FIIs declined in 2001-02, 2002-03, 2004-05, 2006-07, 2008-09, 2009-10, 2011-12 and in 2013-14.

TABLE-2
Net FII and FDI Investments and Closing Values of the Market Indices

Financial Year (April-March)	FDI_INV (US$ mn)	FII_INV (US$ mn)	BSE	NSE
2000-01	2463	1847	3604.38	1138.1
2001-02	4065	1505	3469.35	1129.55
2002-03	2705	377	3048.72	978.2
2003-04	2188	10918	5590.6	1771.9
2004-05	3219	8686	6492.82	2035.65
2005-06	5540	9926	11279.96	3402.55
2006-07	12492	3225	13072.1	3821.55
2007-08	24575	20328	15644.44	4734.5
2008-09	31396	-15017	9708.5	3020.95
2009-10	25834	29048	17527.77	5248.1
2010-11	21383	29422	19445.22	5826.05
2011-12	35121	16812	17404.2	5317.9
2012-13	22423	27582	18835.77	5748.1
2013-14	24299	5010	22386.27	6704.2
2014-15	28813	17157	27,957.49	8,491.00

Source: DIPP, BSE's website, moneycontrol.com and yahoofinance.com

Table 2 shows the net investments by FII and FDI and the closing values of BSE Sensex and CNX Nifty. Both the Indexes generated positive annual returns except in the year 2001-02, 02-03,08-09 and 2011-12. There were massive withdrawal of funds by FIIs in 2008-09.

TABLE-3
Correlations

		BSE	NSE	FDI_INV	FII_INV
BSE	Pearson Correlation	1	1.000**	.781**	.602*
	Sig. (2-tailed)		.000	.001	.023
	N	14	14	14	14
NSE	Pearson Correlation	1.000**	1	.789**	.604*
	Sig. (2-tailed)	.000		.001	.022
	N	14	14	14	14
FDI_INV	Pearson Correlation	.781**	.789**	1	.284
	Sig. (2-tailed)	.001	.001		.324
	N	14	14	14	14
FII_INV	Pearson Correlation	.602*	.604*	.284	1
	Sig. (2-tailed)	.023	.022	.324	
	N	14	14	14	14

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

Coefficient of correlation measures the extent and degree of relationship between two variables. As shown in Table 3, the coefficient of correlation between BSE and FDI is 0.781 and coefficient of correlation between BSE and FII is .602 (r = .602). The coefficient of correlation between NSE and FDI is 0.789 and coefficient of correlation between NSE and FII is .604 (r = .604). It signifies that there is high degree of positive correlation between the market indexes (BSE, NSE) and foreign capital flows (FDI and FII). The correlation values are significant at 1% and 5% level of significance respectively.

ANALYSIS OF DATA USING REGRESSION

Multi regression OLS has been used to analyse the data. While framing Model 1, FDI and FII have been taken as independent variables while BSE Sensex is taken as dependent variable. Table 4 gives the summary output which is reporting the strength of relationship between the independent and dependent variable. The coefficient 'R' represents the multiple correlation coefficient which shows the linear correlation between the observed values and the values of dependent variable as predicted by the model. The larger the value, the stronger is the relationship among the variables.

TABLE-4
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.859[a]	.737	.693	4245.983	.821

a. Predictors: (Constant), FII_INV, FDI_INV
b. Dependent Variable: BSE

IMPACT OF FDI FLOWS AND FII FLOWS ON BSE SENSEX

R Square (or the coefficient of determination) is the square of the multiple correlation coefficients. The value of R Square is 0.737 which shows that FDI and FII (Independent variables) accounts for 73.7% of the variation of the Sensex (Dependent Variable).

ANOVA

The table 5 shows the value of ANOVA. The testing of model from a statistical perspective so as to accept the model is done by ANOVA. F statistic is found to be significant, since the p value (.00032) is less than 0.05.

TABLE-5

ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	6.07E+08	3.04E+08	16.84096639	0.000328565
Residual	12	2.16E+08	18026406		
Total	14	8.23E+08			

TESTING FOR COLINEARITY IN THE DATA

Table 6 presents the colinearity statistics when multiple regression is applied. The colinearity statistics included in the study are Tolerance and Variance Inflation Factor (VIF). To avoid the problem of colinearity among the variables, the value of VIF should be less than 5 and the level of tolerance should be higher than 0.2. In our current model, the VIF value=1.105 and tolerance= 0.905. Therefore, both the values fulfil the required condition. The results indicate that there is no problem

TABLE - 6

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3525.450	1974.180		1.786	.099		
	FDI_INV	.425	.099	.670	4.308	.001	.905	1.105
	FII_INV	.227	.096	.369	2.370	.035	.905	1.105

a. Dependent Variable: BSE

So, the multiple regression equation by taking BSE Sensex as dependent variable and FDI and FII as Independent variables will be as:

BSE SENSEX = a + b1 (FDI) + b2 (FII)

BSE SENSEX = 3525.40+ 0.425 (FDI) + 0.227 (FII)

HYPOTHESIS TESTING FOR FDI AND BSE SENSEX

The null and alternative hypothesis for FDI and BSE Sensex can be written as:

Ho: FDI have no significant impact on BSE Sensex Index.

Hi: FDI have significant impact on BSE Sensex Index.

The 'p' value in case of FDI is .001 which is less than .05, so the null hypothesis will be rejected at 5% significance level. It implies that the alternative hypothesis that FDI have a significant impact on BSE will be accepted.

HYPOTHESIS TESTING FOR FII AND BSE SENSEX

The null and alternative hypothesis for FDI and BSE Sensex can be written as:

Ho: FII have no significant impact on BSE Sensex Index.

Hi: FII have significant impact on BSE Sensex Index.

The 'p' value in case of FII is .035 which is less than .05, So the null hypothesis will be rejected at 5% significance level. It implies that the alternative hypothesis that FIIs have a significant impact on BSE is accepted

IMPACT OF FDI FLOWS AND FIIs ON CNX NIFTY

R Square (or the coefficient of determination) is the square of the multiple correlation coefficients. As shown in table 7, the value of R Square is 0.74. It shows that FDI and FII (independent variables) accounts for 74% of the variation of the Nifty (Dependent Variable).

TABLE - 7

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.862[a]	.743	.700	1254.456	.769

a. Predictors: (Constant), FII_INV, FDI_INV
b. Dependent Variable: NSE

ANOVA

The table 8 shows the value of ANOVA. The testing of model from a statistical perspective so as to accept the model is done by ANOVA. F statistic is found to be significant, since the p value (.0002897) is less than 0.05.

TABLE - 8

ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	54527342.38	27263671	17.32502	0.000289718
Residual	12	18883910.14	1573659		
Total	14	73411252.52			

Testing for Colinearity in the Data

Table 9 presents the colinearity statistics when multiple regression is applied. The colinearity statistics included in the study are Tolerance and Variance Inflation Factor (VIF). To avoid the problem of colinearity among the variables, the value of VIF should be less than 5 and the level of tolerance should be higher than 0.2. In our current model, the VIF value=1.105 and tolerance= 0.905. Therefore, both the values fulfil our condition. The results indicate that there is no problem of colinearity among the variables as used in the model.

TABLE - 9

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1108.272	583.262		1.900	.082		
	FDI INV	.128	.029	.675	4.389	.001	.905	1.105
	FII INV	.067	.028	.366	2.379	.035	.905	1.105

Dependent Variable: NSE

So, the multiple regression equation by taking CNX Nifty as dependent variable and FDI and FII as Independent variables will be as:

CNX NIFTY = a + b1 (FDI) + b2 (FII)

CNX NIFTY = 1108.272+ 0.128 (FDI) + 0.67 (FII)

Hypothesis Testing for FDI and CNX NIFTY

The null and alternative hypothesis for FDI and CNX NIFTY can be written as:

Ho: FDI have no significant impact on CNX NIFTY Index.

Hi: FDI have significant impact on CNX NIFTY Index.

The 'p' value in case of FDI is .001 which is less than .05, So the null hypothesis will be rejected at 5% significance level. It implies that the alternative hypothesis that FDI has a significant impact on NSE will be accepted.

Hypothesis Testing for FII and CNX NIFTY

The null and alternative hypothesis for FDI and CNX Nifty can be written as:

Ho : FII have no significant impact on CNX NIFTY Index.

Hi : FII have significant impact on CNX NIFTY Index.

The 'p' value in case of FII is .035 which is less than .05, So the null hypothesis will be rejected at 5% significance level. It implies that the alternative hypothesis that FII have a significant impact on NSE will be accepted.

Table 10 shows the summary statistics of Regression Tables

TABLE - 10

Regression Statistics (Summary of the two models)

Independent Variable	R Square	Independent variable	Beta	p
Sensex	0.737	FDI	0.670	0.001
		FII	0.369	0.035
Nify	0.743	FDI	0.675	0.001
		FII	0.366	0.035

*significance at 5 percent level of significance

SUMMARY AND CONCLUSIONS

The flow of foreign capital into India in the form of FII and FDI provided momentum to the Indian stock market. It is evident from the current study that there is high degree of positive correlation between FDI and BSE Sensex and FDI and CNX Nifty as also between FII and BSE Sensex and FII and CNX Nifty. In the event of huge withdrawal of funds by FIIs, the net inflow of funds in India in the form of FDI were found to be positive. The summary statistics of regression showed that the foreign capital flows in the form of FII and FDI have a significant impact on the Indian stock market.

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INDIAN BANKING: PRIME DETERMINANTS OF PROFITABILITY, EMERGING ISSUES AND FUTURE OUTLOOK

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ABSTRACT

Profitability is an important criterion to evaluate the overall efficiency of a bank group. The present paper examines the comparative trends in profitability behaviour of five major bank groups in the post liberalization and globalization era. The paper further examines the factors, which are affecting the profitability of these bank groups. The paper concludes that average profitability is the highest in case of New Private Sector Banks and in Foreign Banks. The selected factors have differently affected the profitability of these bank groups. With the help of Correlation Co-efficient Matrix and R - Square, paper examines the impact of each selected variable on the profitability of each group.

The paper offers suggestions on the basis of empirical results to increase the profitability and measures should be taken to increase the level of spread and curtail the burden.

Keywords: Prime Determinants, Emerging Issues and Future Agenda

INTRODUCTION

With the globalization trends world over, it is difficult for any nation, big or small, developed or developing, to remain isolated from what is happening around. For a country like India, which is one of the most promising emerging markets, such isolation is nearly impossible. More particularly, in the time of these dynamic changes, India has also adopted liberalization, privatization and globalization policy under banking sector reforms in 1991, which has improved the performance of the banks to a large extent.

Due to these changes, the concept of banking has drastically changed from a business dealing with money transactions alone to a business related to information on financial transactions. It is so because with the entry of foreign and new private sector banks, competition has increased and banking business has become vast to the extent that even education fee, bills payment, reservations and more particularly, security market and many non-banking transactions etc. are made through banks. It has become possible just because of the use of latest techniques of information technology under the liberalized policies.

Due to liberalization and globalization, competition has increased. Along with the new products, quality of services has also been improved. Liberalization and globalization, where on the one hand put pressure to face competition, on the other side it has opened new vistas of business for Indian banks in the global

markets that how much qualitative and efficient services/products they will provide to their customers, as much they will gain. So, Indian banks now should explore these opportunities at large scale to gain momentum in the global markets.

Liberalization as well as globalization has changed the ways of banking business and the banks are facing fierce competition to stay in foreign markets. They are facing number of challenges to improve their performance on one hand and to serve the customers in new ways with greater efficiency and effectiveness on the other hand. Now days, profitability and social objectives are the two opposing considerations, which a bank is now required to keep in mind. Although, profits today are no longer the be-all and end-all of banking business; nevertheless any concern for healthy growth, long-term viability and lasting contribution of banks must accord due emphasis on profitability.

Profitability is an important criterion for determining the efficiency of banks. This has to be considered in relation to the growth of various selected variables. Raising profitability is one of the important ways by which a bank can vigorously expand its operations on a sustained long-term basis. Profit is the very reason for the continued existence of every commercial organization. The rate of profitability therefore, rightfully considered as indicator of efficiency in the deployment of resources of banks.

The present paper is mainly concerned with the analysis of profitability and its prime determinants of Indian commercial banks in the post liberalized and globalized era. Indian banking has witnessed a sea change in recent years, reflecting the onset of deregulation, liberalization, privatization and globalization. The financial sector reforms focused on reforms in ownership and control, to increase competition in regulation and the policy environment. These sharp changes in the policy environment concerning the operations of the banking system have direct and indirect implications for the performance of the banking sector. All these policy changes have great impact on banks' performance and lead them to face high competition to retain their share in the market.

In the recent days, Indian banking system has become quite complex and varied. Banks have evolved into a technology for delivering a wide range of financial services. The activities of banks have encompassed advisory and counseling roles as well as a monitoring function with a distinct discipline base coupled with entry in non-banking and fee-based activities. Due to the increasing expectations and demands of customers, now commercial banks are facing number of challenges to serve the customers efficiently and effectively.

Today, Indian banking is facing a challenge to improve their profitability on one hand and to serve the customers efficiently in innovative ways on the other hand. Hence, the profitability has great pressure to improve in the current era of globalization. No doubt, the performance of the banks has been improved but profitability of number of banks in all bank groups is deteriorating at regular pace. Therefore, there is a need to concentrate more on efforts to analyze the profitability of all commercial banks so that appropriate and timely strategies can be developed to improve the profitability of poor performing banks. The paper is mainly concerned with Indian commercial banks and the profitability is examined at bank level and bank group level from 1998-99 to 2005-06. The profitability of Indian commercial banks is analyzed along with the study of impact of selected factors on the profitability.

ORGANIZATION OF PAPER

The whole paper is divided into four parts. After the brief introduction of the theme, second part reviews the related studies and describes the methodology. Third part analyzes the results whereas last part devoted for discussion.

REVIEW OF LITERATURE

Arora & Verma (2005) concluded in their study that Indian Banking System is becoming increasingly mature in items of transformation of business process and the appetite for risk management.

Bhattacharya, (1997) has found PSBs with the highest efficiency among the three categories of bank groups as foreign and private sector banks have much lower efficiencies. However PSBs started showing a decline in efficiency after 1987, private banks witnessed no change and foreign banks disclosed sharp rise in efficiency.

Das, A. and Ghosh, S. (2009) conducted a study on financial deregulation and profit efficiency of Indian banks for a time period of 1992 to 2004. Using Non-Parametric DEA Methodology and Univariate analysis and determinants of efficiency, the study indicate high level of efficiency in costs and lower levels in profits, reflecting the importance of inefficiencies on the revenue side of banking activity. The proximate determinants of profit efficiency appear to suggest that big state owned banks performed reasonably well and more likely to operate at higher levels of profit efficiency. A close relationship is observed between efficiency and soundness as determined by bank's capital adequacy ratio.

Das, S.K. (2010) conducted a study on the Indian banking industry with regard to financial liberalization and banking sector efficiency for a time period of 1980-2007. Using Stochastic approach and RBI data for 60 Indian commercial banks on the basis of empirical investigation, the study concludes that after financial liberalization there has been no significant change in the cost efficiency of the public sector banks and the domestic private sector banks are becoming more efficient in comparison to the public sector and the foreign banks.

Garg, Mohini (1994) studied that Indian scheduled commercial banks have achieved remarkable progress in last two decades under study, particularly in branch expansion in rural areas, deposits mobilization and credit deployment to priority sector and small borrowers but their profits have not kept pace their growth and hence, their share in profits have come down, whereas foreign banks with a much smaller geographical spread and resources base, earn almost as much by way of profits as the 20 nationalized banks put together. There is a lot of difference in the pattern of advances and investments and even lending rates of Indian and foreign banks.

Murty, (1996) examined the impact of monetary policy and market interest rates on the bank profitability and also suggest various measures to improve the profitability of the public sector banks in India.

Musonda, A. (2008) conducted a study on the determinants of cost efficiency in the Zambian Banking Sector for a time period of 1998 to 2006. Using translog stochastic frontier cost function, conditional mean inefficiency model, stochastic frontier approach, data envelopment analysis, the study concludes that the efficiency gap between domestic banks and foreign banks remains wide. Bank continue to exhibit poor risk assessment technique as exemplified by higher loan loss provisions.

Mishra, B.S. (2003) conducted a study at the state level basis on allocative efficiency of the Indian

Banking System in the Post-Reform Period for a time period of 1981-92 and 1993-2001. In this study the credit output dynamics has been studied for three broad sectors of each state viz. agriculture, industry and services. The results reveal that there is improvement in overall allocative efficiency in the post reform period for the majority of states.

Nayar, Anita (1992) concluded that overall profitability of banks has been under constant strains during the study period except 1974-70 and downfall is experienced between1970-1974.

Satyamurty, (1994) clarified the concepts of profits, profitability & productivity applicable to the banking industry organized by the bank managements that the pressure on the profitability is more due to the factors beyond their control.

Shah, (1977) examined that slow growth in productivity and efficiency, wasteful work of banks that higher profitability can result from increased spread and that innovations have a limited role. He favored written job descriptions for improvement of staff productivity. He also emphasized reduction of costs, creation of a team spirit improvement in the management for improving bank profitability and productivity.

Singh, Inderjeet & Parmod Kumar (2006) analyzed that deposits is a major determinant of spread followed by borrowings and labour. The study again concluded that average technical and allocative efficiency are the highest in foreign banks while of PSBs is although lower than FBs but much better than private sector banks.

Singla & Arora (2005) studied the comparative performance of Canara Bank and Indian Bank that both the banks have improved their financial performance during the study period where Canara Bank has an upper hand in growth of deposit, advances and average working funds. In case of productivity it is rising in both the banks but remained much higher in Canara Bank.

Swamy, (2001) concludes that in many respects NPSBs are much better than PSBs, even they are better than foreign sector banks.

T. Padamasai (2000) studied that productivity and profitability of five big banks increased throughout the post-reforms period in terms of selected ratios of each parameter, but on account of efficiency, the performance of the top five banks is very dismissal as inefficiency has increased during the study period. He suggested that if the government sells its share in the profit making banks, it would be able to bail out the weak banks.

There have been a number of studies on liberalization programmes and their impact on efficiency in industrialized countries and transition economies. But there is lack of studies particularly related to the prime determinants of profitability. Hence, there is a need to explore this area for research in detail as review of the literature on the subject indicated that the changes due to emerging competition are very vital for the present banking system. This paper is an attempt to study the profitability of Indian commercial banks in he post-liberalized and globalized era along with the analysis of its impact in terms of twelve selected factors of profitability.

OBJECTIVES

1. To study and analyze the trends and growth in profitability and its prime determinants of major bank groups.

2. To analyze the impact of determinants on profitability of major bank groups.
3. To suggest possible measures to improve the profitability of poor performing banks.

HYPOTHESIS

There is insignificant correlation between profitability and its determinants.

METHODOLOGY

The present paper is mainly concerned with profitability analysis of commercial banks in India.

Research Design

The present study evaluates the profitability of Indian banking industry in the liberalized and globalized environment. Further, from the Indian banking industry, only commercial banks have been chosen to study whereas RRBs are excluded from the study.

Sample Design

The whole Indian banking industry is taken in terms of five major bank groups as given below:

G-I comprises Nationalized Banks

G-II comprises SBI & Associates

G-III comprises Old Private Sector Banks

G-IV comprises New Private Sector Banks

G-V comprises Foreign Banks

Profitability Analysis

The performance of a bank can be measured by number of indicators. Profitability is the most important and reliable indicator as it gives a broad indication of the capability of a bank to increase its earnings. The analysis of profitability is made at bank group level. For measuring the profitability of commercial banks, the present study employs three methods viz., trend analysis and ratio analysis.

Trend Analysis: Trend indicates the direction of operations over a period of time. It also predicts the historical developments in the banks' operations. Trend analysis in this study is used to predict the trends in profitability and its prime determinants.

Here, overall growth rate is also calculated with the help of following formula, which indicates the overall change in a factor under study during the whole study period.:

$$G = \frac{Y(t) - Y(t0)}{Y(t0)} * 100$$

Where;

G= simple percentage growth rate over the base year

Y (t) = value of the given parameter in the current year i.e. 2005-06

Y t0= value of the given parameter in the base year i.e. 1998-99

Ratio Analysis: Ratio provides a convenient means of analysis and expression of the various operational aspects of banks. In this paper 13 ratios are calculated to analyze the profitability of commercial banks

viz:

1. Net Profit as a percentage of Total Assets (Y1)
2. Rural Branches as percentages of Total Branches (X2)
3. Priority Sector Advances as a percentage of Working Funds (X3)
4. Net NPAs as percentage of Net Advances (X4)
5. Interest Income as percentage of Total Income (X5)
6. Non- Interest Income as percentage of Total Income (X6)
7. Establishment Expenditure as a percentage of Total Expenditure (X7)
8. Spread as a percentage of Working Funds (X8)
9. Burden as a percentage of Working Funds (X9)
10. Current Deposits as a percentage of Total Deposits (X10)
11. Fixed Deposits as a percentage of Total Deposits (X11)
12. Saving Deposits as a percentage of Total Deposits (X12)
13. Total Credit as a percentage of Total Deposits (X13)

Among these, profitability is dependent factor whereas other twelve factors are independent. In this study, it is analyzed that whether the selected twelve factors have any impact on profitability, if so then to what extent these factors affecting the profitability of five major bank groups. This analysis provide an important results to examine the variables which are contributing positively in profitability and which are the factors affecting the profitability negatively. So that appropriate strategies can be developed in the light of this analysis.

Time Period for the Study: Time period for the study is taken from post second banking sector reforms i.e. from 1998-99 to 2005-06. The time period is taken so because the true impact of liberalization and globalization can be studied only after second banking sector reforms period as competition is increased, IT Act, 2000 is implemented, free entry of foreign and private sector banks, implementation of WTO with new facilities etc. This mixed factors affect on banking industry is studied in the selected time period.

Collection of Data

The present paper is based on secondary data and it has been collected for the analysis of profitability from Performance Highlights, Various Issues, 1998-99 to 2005-06 and IBA Bulletin, 1998-99, 2003-04.

Analysis of the Data

These ratios are analyzed and interpreted by calculating Mean, Standard Deviation, Co-efficient of Variation to get a better picture of the performance of Indian commercial banks at group level. Besides this correlation co-efficient and R-square are also calculated to study the relationship between profitability and selected factors of profitability where r-square provides more useful information as it tells the extent of relationship between the factors under study. Data is calculated with the help of SPSS 15.00 Version.

Profitability

Table 1 exhibits that all bank groups have shown fluctuating trend in their profitability during the study period and here, it is interesting to note that profitability was the highest in the year 2003-04 in all bank groups but further started to decline in the next years under study. All banks have recorded improvement in their profitability as foreign banks witnessed the highest growth i.e. 120.29 pc and also have the highest average profitability i.e. 1.27 pc. On the other hand, private sector banks have recorded the least rate of growth i.e. 39.68 pc where new private sector banks witnessed only 6.38 pc growth but have 0.93 pc average profitability which was the second highest among all bank groups. Interesting to note that all scheduled commercial banks have recorded 0.71 pc average profitability with an excellent rate of growth i.e. 423.53 pc Group-wise variations were the highest (46.05 pc) in old private sector banks.

Table 1: Net Profits/Loss as Percentage of Total Assets – Y_1 (At Bank Group Level)

(Per cent)

Sr. No.	Banks	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	Average	S.D.	C.V. (%)	Overall Growth
1	G-I	0.37	0.44	0.33	0.69	0.98	1.19	0.89	0.81	0.71	0.31	43.66	118.92
2	G-II	0.51	0.80	0.55	0.77	0.91	1.02	0.91	0.86	0.79	0.18	22.78	68.63
3	PSBs (G-I+II)	0.42	0.57	0.42	0.72	0.96	1.12	0.89	0.83	0.74	0.26	35.14	97.62
4	G-III	0.47	0.78	0.68	1.04	1.17	1.16	0.20	0.54	0.76	0.35	46.05	14.89
5	G-IV	0.94	0.85	0.76	0.39	1.08	1.21	1.17	1.00	0.93	0.26	27.96	6.38
6	IPSBs (G-III+IV)	0.63	0.81	0.71	0.62	1.12	1.19	0.85	0.88	0.85	0.21	24.71	39.68
7	G-V	0.69	1.17	0.93	1.32	1.56	1.65	1.29	1.52	1.27	0.33	25.98	120.29
8	ASCBs	0.17	0.23	0.55	0.76	1.03	1.16	0.91	0.89	0.71	0.36	50.70	423.53
	Average	0.60	0.81	0.65	0.84	1.14	1.25	0.89	0.95				
	S.D.	0.22	0.26	0.23	0.35	0.25	0.24	0.42	0.36				
	C.V. (%)	36.67	32.10	35.38	41.67	21.93	19.20	47.19	37.89				

Year-wise, average profitability was the highest i.e. 1.25 pc in 2003-04 whereas it has decreased to 0.95 pc in 2005-06 mainly because of declining profitability of maximum old private sector banks and some of public sector banks. Variations were the highest in 2004-05 i.e. 47.19 pc in terms of C.V.

Overall, it is concluded that profitability of foreign banks has shown an excellent trend of improvement and average profitability was also the highest i.e. 1.27 pc in this group followed by new private sector banks who have 0.93 pc average profitability. Overall, profitability of all scheduled commercial banks has increased at 423.53 pc rate of growth which was improved from 0.17 pc in 1998-99 to 0.89 pc in 2005-06.

PRIME DETERMINANTS

From the analysis of profitability of major bank groups, it is concluded that profitability of Indian banking industry was deteriorating continuously. Now the question arises what are the factors that contribute to the improvement in profitability and mainly what are the factors responsible for deterioration in profitability of the banks? Here, an attempt has been made to estimate the impact of selected factors on bank profitability. Here, it is empirically tested that whether the correlation between profitability and selected factors is significant or not if so to what extent these factors affect the profitability. For this purpose, firstly selected factors are studied to examine the trends and growth during the period of 1998-99

to 2005-06 and then correlation analysis and regression analysis (R-square) are used to test the impact of these factors on the profitability of five major bank groups separately.

Rural Branches as Percentage of Total Branches (X2): Table 2 shows decreasing trend in their share of rural branches from total branches in all bank groups except new private sector banks Private sector banks have recorded the highest rate of decline i.e. 23.39 pc whereas foreign banks haven't any branch in rural areas of India. On an average, public sector banks have recorded the highest share of rural branches i.e. 41.53. New private sector banks have shown the highest variations i.e. 62.70 pc in terms of C.V. witnessed high competition among new private sector banks.

Overall, rural branches' share from total branches was decreasing at 9.46 pc rate during the study period and have only 39.74 pc average share in total branches of scheduled commercial banks.

Bank Group	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	Average	S.D.	C.V. (%)	Overall Growth
G-I	43.41	42.91	42.70	42.44	41.93	41.49	40.89	40.01	41.97	1.13	2.69	-7.83
G-II	41.69	41.14	40.67	40.52	40.44	40.07	39.82	39.35	40.46	0.74	1.83	-5.61
PSBs (G-I+II)	42.91	42.39	42.10	41.87	41.50	41.08	40.58	39.82	41.53	1.01	2.43	-7.20
G-III	34.21	33.51	29.68	29.19	25.43	27.89	26.62	26.75	29.16	3.22	11.04	-21.81
G-IV	1.74	2.39	12.92	10.22	7.42	8.47	7.70	18.45	8.66	5.43	62.70	960.34
IPSBs (G-III+IV)	31.72	30.47	26.93	25.66	21.33	23.79	22.03	24.30	25.78	3.75	14.55	-23.39
G-V	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASCBs	41.77	41.15	40.45	40.06	39.24	39.09	38.32	37.82	39.74	1.37	3.45	-9.46
Average	24.21	23.99	25.19	24.47	23.04	23.58	23.06	24.91				
S.D.	21.59	21.12	18.38	18.74	18.92	18.68	18.57	16.60				
C.V. (%)	89.18	88.04	72.97	76.58	82.12	79.22	80.53	66.64				

Source: Performance Highlights, Various Issues, 1998-99 to 2005-06

Priority Sector Advances as Percentage of Total Advances (X3): Table 3 shows that all bank groups except old private sector banks have recorded increasing trend in the share of priority sector advances from total advances. Among all, new private sector banks have recorded the highest growth i.e. 59.29 pc in its priority sector advances' share but has the least average share i.e. 20.28 pc. On an average, it was the highest in nationalized banks (34.03 pc) followed by old private sector banks. It was the least in new private sector banks even C.V. is the highest i.e. 25.20 pc that reflected higher competition in this bank group and resulted in the higher growth.

Table 3: Priority Sector Advances as Percentage of Total Advances- X3

(Per cent)

Bank Group	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	Average	S.D.	C.V. (%)	Overall Growth
G-I	32.25	31.40	31.48	31.33	33.84	36.25	37.75	37.97	34.03	2.88	8.46	17.74
G-II	30.52	29.09	29.06	28.93	28.94	30.81	32.33	33.65	30.42	1.78	5.85	10.26
PSBs (G-I+II)	31.61	30.73	30.61	30.51	32.16	34.36	35.85	36.45	32.78	2.43	7.41	15.31
G-III	32.99	33.18	31.66	31.02	29.94	31.44	31.31	32.16	31.71	1.06	3.34	-2.52
G-IV	18.89	16.32	15.49	15.97	18.18	24.15	23.16	30.09	20.28	5.11	25.20	59.29
IPSBs (G-III+IV)	28.32	26.48	24.48	26.87	22.36	26.69	25.78	30.65	26.45	2.46	9.30	8.23
G-V	22.12	21.60	21.42	21.48	21.91	23.47	25.77	26.88	23.08	2.13	9.23	21.52
ASCBs	30.65	29.47	29.06	27.37	29.51	31.91	33.16	34.57	30.71	2.37	7.72	12.79
Average	27.35	26.32	25.82	25.75	26.56	29.22	30.06	32.15				
S.D.	6.42	7.12	7.12	6.76	6.36	5.38	5.74	4.13				
C.V. (%)	23.47	27.05	27.58	26.25	23.95	18.41	19.10	12.85				

Source: Performance Highlights, Various Issues, 1998-99 to 2005-06

Overall, all scheduled commercial banks have recorded 12.79 pc growth having 30.71 pc average share of priority sector advances in total advances during the study period. New private sector banks and foreign banks were gaining momentum with an excellent growth in priority sector advances and hence Public sector banks are facing challenges from these banks to retain their share in the market.

Net Non-Performing Assets (NPAs) as Percentage of Total Advances (X4): Table 4 exhibits that all bank groups have recorded declining trend in the non-performing assets level where foreign banks witnessed the highest decline at 86.78 pc and average non-performing assets of 3.60 pc which was the least among all bank groups under study. Nationalized banks followed with 86.54 pc decline but still have the highest level of non-performing assets i.e. 5.23 pc. New private sector banks have recorded the least decline of 78.51 pc.

Overall, all bank groups have succeeded to bring down their non-performing assets and public sector banks, although have the highest level of non-performing assets among all bank groups but still recorded

Table 4: Net NPAs as Percentage of Net Advances – X4

(Per cent)

Bank Group	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	Average	S.D.	C.V. (%)	Overall Growth
G-I	8.69	8.08	7.56	6.60	4.74	3.13	1.86	1.17	5.23	2.93	56.02	-86.54
G-II	9.22	7.76	6.90	5.12	4.12	2.71	2.24	1.64	4.96	2.78	56.05	-82.21
PSBs (G-I+II)	8.96	7.92	7.36	6.16	4.50	3.00	1.99	1.33	5.15	2.87	55.73	-85.16
G-III	9.13	8.10	8.46	9.22	5.50	3.80	2.84	1.71	6.09	3.02	49.59	-81.27
G-IV	3.49	2.60	3.20	4.44	4.60	2.40	1.41	0.75	2.86	1.36	47.55	-78.51
IPSBs (G-III+IV)	6.31	5.35	7.06	7.95	4.95	2.84	1.87	1.01	4.67	2.52	53.96	-83.99
G-V	6.28	7.42	8.40	1.73	1.76	1.49	0.86	0.83	3.60	3.19	88.61	-86.78
ASCBs	7.18	6.90	7.20	9.34	4.40	2.90	1.89	1.23	5.13	2.94	57.31	-82.87
Average	7.36	6.79	6.90	5.42	4.14	2.71	1.84	1.22				
S.D.	2.48	2.36	2.17	2.76	1.42	0.86	0.76	0.44				
C.V. (%)	33.70	34.76	31.45	50.92	34.30	31.73	41.30	36.07				

Source: Performance Highlights, Various Issues, 1998-99 to 2005-06

Interest Income as Percentage of Total Income (X5): Table 5 shows declining trend in interest income of all bank groups till 2003-04 and then started to increase where foreign banks recorded the highest decline at 12.94 pc rate followed by new private sector banks with 11.37 pc which was mainly because these banks concentrated more on fee-based income. Public sector banks have shown 2.65 pc decline even having the highest average interest income i.e. 85.18 pc during the study period whereas it was the least in foreign banks group i.e. 74.81 pc. Overall, all scheduled commercial banks have recorded 4.73 pc decline in interest income.

Overall trend was declining, which is obvious in globalized environment as more concentration is diverted towards fee-based activities which give handsome income to the banks

Table 5: Interest Income as Percentage of Total Income – X_5

(Per cent)

Bank Group	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	Average	S.D.	C.V. (%)	Overall Growth
G-I	89.48	88.38	88.85	85.50	83.32	79.97	83.94	87.15	85.82	3.27	3.81	-2.60
G-II	85.61	85.81	86.74	86.56	83.63	78.93	82.29	83.38	84.12	2.64	3.14	-2.60
PSBs (G-I+II)	88.04	87.41	88.05	85.90	83.44	79.57	83.31	85.71	85.18	2.93	3.44	-2.65
G-III	88.15	85.05	88.64	79.65	79.07	78.99	87.72	87.92	84.40	4.41	5.23	-0.26
G-IV	85.57	81.91	85.86	79.40	75.94	75.94	76.74	75.84	79.65	4.30	5.40	-11.37
IPSBs (G-III+IV)	87.27	83.85	87.37	79.58	77.05	77.04	80.46	79.15	81.47	4.20	5.16	-9.30
G-V	80.61	79.16	79.04	74.54	74.49	70.09	70.36	70.18	74.81	4.38	5.85	-12.94
ASCBs	87.25	86.25	87.15	84.07	81.66	78.53	81.91	83.12	83.74	3.06	3.65	-4.73
Average	85.88	84.06	85.83	81.13	79.29	76.78	80.21	80.89				
S.D.	3.39	3.58	4.00	4.93	4.16	4.04	6.78	7.67				
C.V. (%)	3.95	4.26	4.66	6.08	5.25	5.26	8.45	9.48				

Source: Performance Highlights, Various Issues, 1998-99 to 2005-06

Non-Interest Income as Percentage of Total Income (X6): Non-interest income is very important source of income that contributes maximum in banks' income and gaining momentum share in total income.

Table 6: Non-Interest Income as Percentage of Total Income – X_6

(Per cent)

Bank Group	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	Average	S.D.	C.V. (%)	Overall Growth
G-I	10.52	11.62	11.15	14.50	16.68	20.03	16.06	12.85	14.18	3.27	23.06	22.15
G-II	14.39	14.19	13.26	13.44	16.37	21.07	17.71	16.63	15.88	2.64	16.62	15.57
PSBs (G-I+II)	11.96	12.59	11.95	14.10	16.56	20.43	16.69	14.29	14.82	2.93	19.77	19.48
G-III	11.85	14.95	11.36	20.35	20.93	21.01	12.28	12.08	15.60	4.41	28.27	1.94
G-IV	14.43	18.09	14.14	20.60	69.56	24.06	23.26	24.16	26.04	18.04	69.28	67.43
IPSBs (G-III+IV)	12.73	16.15	12.63	20.42	52.35	22.96	19.54	20.85	22.04	12.76	57.89	63.79
G-V	19.39	20.84	20.96	25.46	25.50	29.91	29.64	29.82	25.19	4.38	17.39	53.79
ASCBs	12.75	13.75	12.85	15.93	18.34	21.47	18.09	16.88	16.26	3.06	18.82	32.39
Average	14.12	15.94	14.17	18.87	29.81	23.22	19.79	19.11				
S.D.	3.39	3.58	4.00	4.93	22.53	4.04	6.78	7.66				
C.V. (%)	24.01	22.46	28.23	26.13	75.58	17.40	34.26	40.08				

Source: Performance Highlights, Various Issues, 1998-99 to 2005-06

From table 6, it is observed that all bank groups have shown fluctuating trend in non-interest income and recorded increase during the study period. Here, new private sector banks have recorded the highest growth i.e. 67.43 pc among all bank groups witnessed the highest average level of non-interest income i.e. 26.04 pc followed by foreign banks with 53.79 pc growth and 25.19 pc average non-interest income level. Growth was the least in old private sector banks i.e. only 1.94 pc and average non-interest income level was the least i.e. 14.82 pc in public sector banks.

Establishment Expenditure as Percentage of Total Expenditures (X7): Table 7 shows fluctuating trend in establishment expenditure of all bank groups. The share of establishment expenditure from total expenditure was increasing in new private sector banks group at the highest i.e. 167.65 pc growth rate with the highest variations (38.40 pc) and the least average establishment expenditure (5.13 pc). Foreign banks followed with 60.37 pc growth and have shown 10.51 pc average establishment expenditure. Whereas, public sector banks have shown 0.15 pc decline and have the highest average establishment expenditure i.e. 19.36 pc among all the bank groups although they were trying to bring down establishment expenditure.

Overall, all scheduled commercial banks have shown 1.37 pc decline and have 16.94 pc average share of establishment expenditure in total expenditure.

Table 7: Establishment Expenditure as Percentage of Total Expenditure – X_7

(Per cent)

Bank Group	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	Average	S.D.	C.V. (%)	Overall Growth
G-I	19.59	19.22	21.19	18.21	18.19	18.75	20.46	19.26	19.36	1.05	5.42	-1.68
G-II	19.70	18.91	21.08	16.36	16.72	18.05	18.83	20.14	18.72	1.63	8.71	2.23
PSBs (G-I+II)	19.63	19.07	21.15	17.51	17.63	18.52	19.87	19.60	19.12	1.22	6.38	-0.15
G-III	12.97	13.34	12.10	11.85	12.91	13.79	14.21	15.90	13.38	1.29	9.64	22.59
G-IV	3.06	3.37	3.64	4.74	4.39	5.87	7.79	8.19	5.13	1.97	38.40	167.65
IPSBs (G-III+IV)	9.71	9.61	8.31	8.44	7.35	8.68	10.17	10.41	9.09	1.05	11.55	7.21
G-V	8.58	9.28	8.95	9.79	10.15	11.20	12.35	13.76	10.51	1.80	17.13	60.37
ASCBs	17.54	17.13	18.52	15.63	15.23	16.50	17.69	17.30	16.94	1.10	6.49	-1.37
Average	12.78	12.82	13.39	12.19	12.47	13.53	14.73	15.45				
S.D.	7.18	6.71	7.69	5.36	5.51	5.29	5.09	4.80				
C.V. (%)	56.18	52.34	57.43	43.97	44.19	39.10	34.56	31.07				

Source: Performance Highlights, Various Issues, 1998-99 to 2005-06

Spread as Percentage of Total Assets (X8): Table 8 shows fluctuating trend in spread ratio of all bank groups. Old private sector banks have the highest growth in spread level i.e. 34.31 pc as overall private sector banks witnessed the highest growth of 15.58 pc in spread level whereas the growth was the least in foreign banks i.e. 9.32 pc but having the highest level of average spread i.e. 3.48 pc. Variations were the highest in new private sector banks i.e. 17.37 pc as these banks were highly competitive even then this group has the least average spread level (1.90 pc). Nationalized banks have recorded 9.47 pc growth with 2.86 pc average spread during the study period whereas it was the least in new private sector banks i.e. 1.90 pc only.

Table 8: Spread as Percentage of Total Assets – X_8

(Per cent)

Bank Group	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	Average	S.D.	C.V. (%)	Overall Growth
G-I	2.64	2.66	2.90	2.74	3.00	3.06	3.02	2.89	2.86	0.16	5.59	9.47
G-II	2.73	2.76	2.79	2.71	2.77	2.83	3.06	3.08	2.84	0.15	5.28	12.82
PSBs (G-I+II)	2.67	2.70	2.86	2.73	2.91	2.98	3.04	2.96	2.86	0.14	4.90	10.86
G-III	2.04	2.33	2.51	2.33	2.45	2.56	2.66	2.74	2.45	0.22	8.98	34.31
G-IV	1.91	1.95	2.14	1.18	1.70	1.98	2.18	2.15	1.90	0.33	17.37	12.57
IPSBs (G-III+IV)	1.99	2.16	2.33	2.19	1.97	2.18	2.33	2.30	2.18	0.14	6.42	15.58
G-V	3.22	3.92	3.63	3.22	3.36	3.60	3.34	3.52	3.48	0.24	6.90	9.32
ASCBs	2.65	2.73	2.85	2.57	2.78	2.89	2.93	2.86	2.78	0.12	4.32	7.92
Average	2.51	2.72	2.79	2.44	2.66	2.81	2.85	2.88				
S.D.	0.54	0.74	0.55	0.77	0.63	0.60	0.45	0.50				
C.V. (%)	21.51	27.21	19.71	31.56	23.68	21.35	15.79	17.36				

Source: Performance Highlights, Various Issues, 1998-99 to 2005-06

Burden as Percentage of Total Assets (X9): Table 9 shows fluctuating trend in burden of all bank groups during the study period. Burden as percentage of total assets has increased in case of private sector banks while public sector banks and foreign banks succeeded to bring down the level of burden. Like spread, burden was also grown at the highest rate i.e. 40.13 pc in case of old private sector banks that reflected their poor performance as increasing burden contributed to decrease in profitability. It is interesting to note that burden has increased at 27.47 pc rate in new private sector banks also but even recorded the lowest level of average burden i.e. 1.03 pc that has shown this group was maintaining balance between its non-interest income and expenditure. Public sector banks have shown 7.05 pc decline even recorded the highest level of average burden i.e. 2.08 pc. Overall, it has increased from 1.85 pc to 1.93 pc during the study period as all scheduled commercial banks witnessed 9.68 pc decline in burden.

Overall, average burden level was still high in public sector banks but still they are trying to bring down their burden by 10.04 pc but private sector banks have shown increase mainly contributed by old private sector banks with 40.13 pc growth, reflected its poor performance.

Table 9: Burden as Percentage of Total Assets – X_9

(Per cent)

Bank Group	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	Average	S.D.	C.V. (%)	Overall Growth
G-I	2.29	2.12	2.43	1.97	2.01	1.88	2.11	2.06	2.11	0.18	8.53	-10.04
G-II	2.24	1.93	2.18	1.88	1.85	1.81	2.16	2.22	2.03	0.18	8.87	-0.89
PSBs (G-I+II)	2.27	2.05	2.33	1.93	1.95	1.85	2.13	2.11	2.08	0.17	8.17	-7.05
G-III	1.57	1.42	1.81	1.25	1.29	1.40	2.46	2.20	1.68	0.45	26.79	40.13
G-IV	0.91	0.93	1.25	0.72	0.80	1.42	1.01	1.16	1.03	0.24	23.30	27.47
IPSBs (G-III+IV)	1.33	1.20	1.53	0.91	0.98	1.41	1.48	1.43	1.28	0.23	17.97	7.52
G-V	2.24	2.38	2.40	1.75	1.77	1.99	2.05	1.99	2.07	0.25	12.08	-11.16
ASCBs	2.17	1.97	2.24	1.74	1.77	1.78	2.00	1.96	1.95	0.19	9.74	-9.68
Average	1.85	1.76	2.01	1.51	1.54	1.70	1.96	1.93				
S.D.	0.60	0.58	0.49	0.52	0.49	0.27	0.55	0.44				
C.V. (%)	32.43	32.95	24.38	34.44	31.82	15.88	28.06	22.80				

Current Deposits as Percentage of Total Deposits (X10): Table 10 shows the decreasing trend in a share of current deposits from total deposits in all bank groups except new private sector banks and foreign banks till 2004-05 and then recorded increase but in case of new private sector banks, it has decreased in 2005-06 whereas in case of foreign banks, it has shown increasing trend through out all the years under study. It is observed that average share of current deposits in total deposits was the highest i.e. 24.36 pc in foreign banks and recorded an excellent growth of 72.69 pc. Similarly, private sector banks have shown increase in current deposits' share whereas all public sector banks and overall scheduled commercial banks recorded decrease. Average share of current deposits was the highest in foreign banks i.e. 24.36 pc followed by SBI Group with 15.74 pc average share whereas it was the least in old private sector banks i.e. 10.54 pc. Overall, average current deposits share has increased from 15.16 pc in 1998-99 to 16.97 pc in 2005-06 and variations were also the highest in 2005-06 i.e. 58.04 pc in terms of C.V.

Table 10: Current Deposits as Percentage of Total Deposits – X_{10}

(Per cent)

Bank Group	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	Average	S.D.	C.V. (%)	Overall Growth
G-I	12.00	11.86	11.09	10.65	10.21	9.78	9.63	10.13	10.67	0.91	8.53	-15.58
G-II	17.89	17.72	16.18	15.17	14.48	14.62	14.09	15.74	15.74	1.45	9.21	-12.02
PSBs (G-I+II)	14.03	13.90	12.94	12.29	11.76	11.49	11.22	12.04	12.46	1.07	8.59	-14.18
G-III	11.93	13.17	10.37	10.09	9.31	9.23	9.80	10.40	10.54	1.36	12.90	-12.82
G-IV	14.28	17.15	14.34	13.81	12.75	18.25	17.52	14.58	15.34	2.01	13.10	2.10
IPSBs (G-III+IV)	12.75	14.87	12.21	12.04	11.23	14.32	14.51	13.29	13.15	1.32	10.04	4.24
G-V	19.70	21.67	20.08	21.10	20.89	27.23	30.18	34.02	24.36	5.42	22.25	72.69
ASCBs	14.24	14.44	13.25	12.73	12.14	12.75	12.68	13.46	13.21	0.80	6.06	-5.48
Average	15.16	16.31	14.41	14.16	13.53	15.82	16.24	16.97				
S.D.	3.51	3.91	3.96	4.42	4.60	7.37	8.45	9.85				
C.V. (%)	23.15	23.97	27.48	31.21	34.00	46.59	52.03	58.04				

Source: Performance Highlights, Various Issues, 1998-99 to 2005-06

Overall, all scheduled commercial banks have shown 13.21 pc average share of current deposits but recorded decline of 5.48 pc which was mainly due to the highest decline in current deposits of foreign banks and public sector banks. There should be more efforts to attract more current deposits because it contributes healthy share in earnings of the banks with negligible cost.

Fixed Deposits as Percentage of Total Deposits (X11): Table 11 shows declining trend in share of fixed deposits of all bank groups. Foreign banks have recorded the highest decline i.e. 31.79 pc in its share of fixed deposits' share and witnessed 62.98 pc average fixed deposits. Nationalized banks have recorded the least decline i.e. 4.16 pc as overall public sector banks witnessed 5.22 pc decline in its fixed deposits' share in total deposits. Average share of fixed deposits was the highest in old private sector banks i.e. 75.54 pc whereas it was the least i.e. 61.43 pc in SBI Group. Overall, fixed deposits share in total deposits was the highest in private sector banks and foreign banks recorded decline in fixed deposits at the highest rate i.e. 31.79 pc. Overall, average share of fixed deposits has decreased from 71.90 pc to 61.57 pc during the study period whereas variations were the highest in 2005-06 i.e. 14.52 pc.

Table 11: Fixed Deposits as Percentage of Total Deposits – X_{11}

(Per cent)

Bank Group	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	Average	S.D.	C.V. (%)	Overall Growth
G-I	64.24	64.05	64.60	64.54	63.78	63.24	62.93	61.57	63.62	1.02	1.60	-4.16
G-II	61.17	60.74	63.36	63.49	63.03	60.85	62.21	56.60	61.43	2.25	3.66	-7.47
PSBs (G-I+II)	63.18	62.90	64.15	64.16	63.51	62.40	62.67	59.88	62.86	1.36	2.16	-5.22
G-III	80.56	78.87	75.77	75.21	75.73	74.90	71.97	71.29	75.54	3.11	4.12	-11.51
G-IV	80.99	76.40	76.39	76.87	76.46	67.27	68.86	68.93	74.02	4.96	6.70	-14.89
IPSBs (G-III+IV)	80.71	77.81	76.05	76.08	76.14	70.60	70.07	69.66	74.64	4.06	5.44	-13.69
G-V	72.53	68.84	70.42	67.52	66.14	56.90	52.01	49.47	62.98	8.87	14.08	-31.79
ASCBs	65.58	65.04	66.03	66.02	65.57	63.44	63.43	61.28	64.55	1.68	2.60	-6.56
Average	71.90	69.78	70.11	69.53	69.03	64.63	63.60	61.57				
S.D.	9.11	7.78	6.07	6.16	6.56	6.86	7.66	8.94				
C.V. (%)	12.67	11.15	8.66	8.86	9.50	10.61	12.04	14.52				

Source: Performance Highlights, Various Issues, 1998-99 to 2005-06

Overall, fixed deposits' share was 64.55 pc in all scheduled commercial banks but recorded decline of 6.56 pc. The banks should mobilize fixed deposits at large from the public with some attractive and customer friendly benefits.

Saving Deposits as Percentage of Total Deposits (X12): Table 12 shows increasing trend in saving deposits' share from total deposits of all bank groups except, foreign banks witnessed decline in 2005-06. Share of saving deposits of new private sector banks reflected an excellent growth i.e. 248.63 pc along with the highest variations i.e. 39.71 pc but the average share of saving deposits was the least (10.93 pc) in this bank group. Foreign banks were following with 98.92 pc growth Overall, average saving deposits have increased from 14.51 pc in 1998-99 to 21.45 pc in 2005-06 but variations were the highest in 1998-99 i.e. 55.69 pc. All scheduled commercial banks recorded 21.97 pc growth in its share of saving deposits whereas average saving deposits were 22.43 pc.

Overall, share of saving deposits was the highest in public sector banks but growth was recorded the highest in new private sector banks i.e. 248.63 pc. Hence, new private sector banks were gaining momentum in saving deposits share with attractive and competitive marketing strategies.

Table 12: Saving Deposits as Percentage of Total Deposits – X_{12}

(Per cent)

Bank Group	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	Average	S.D.	C.V. (%)	Overall Growth
G-I	23.76	24.10	24.31	24.81	26.05	26.98	27.37	28.29	25.71	1.70	6.61	19.07
G-II	20.94	21.54	20.46	21.33	22.48	24.53	24.96	27.66	22.99	2.50	10.87	32.09
PSBs (G-I+II)	22.79	23.21	22.91	23.55	24.76	26.11	26.51	28.08	24.74	1.97	7.96	23.21
G-III	14.83	15.22	13.86	14.70	14.96	15.87	16.60	18.30	15.54	1.38	8.88	23.40
G-IV	4.73	6.46	9.27	9.32	10.79	14.48	15.89	16.49	10.93	4.34	39.71	248.63
IPSBs (G-III+IV)	11.31	11.47	11.73	11.87	12.63	15.08	16.17	17.05	13.41	2.32	17.30	50.75
G-V	8.30	9.83	9.50	11.38	12.97	15.87	17.95	16.51	12.79	3.62	28.30	98.92
ASCBs	20.71	21.05	20.72	21.25	22.30	23.81	24.34	25.26	22.43	1.80	8.02	21.97
Average	14.51	15.43	15.48	16.31	17.45	19.55	20.55	21.45				
S.D.	8.08	7.49	6.70	6.58	6.52	5.76	5.24	6.01				
C.V. (%)	55.69	48.54	43.28	40.34	37.36	29.46	25.50	28.02				

Source: Performance Highlights, Various Issues, 1998-99 to 2005-06

Total Credit as Percentage of Total Deposits (X13): Table 13 shows increasing trend in share of credits from total deposits of public sector banks while it was fluctuating in private and foreign banks. Overall, C-D ratio has improved in all the bank groups during the study period.

Table 13: Total Credit as Percentage of Total Deposits (C-D Ratio) – X_{13}

(Per cent)

Bank Group	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	Average	S.D.	C.V. (%)	Overall Growth
G-I	44.95	46.74	48.34	51.10	52.32	51.92	57.32	64.69	52.17	6.33	12.13	43.92
G-II	49.44	50.43	48.18	46.87	48.39	50.94	56.31	68.49	52.38	7.11	13.57	38.53
PSBs (G-I+II)	46.50	47.76	48.28	49.57	50.89	51.46	56.90	65.98	52.17	6.42	12.31	41.89
G-III	49.66	50.14	51.87	49.97	54.07	52.83	58.21	63.82	53.82	4.92	9.14	28.51
G-IV	49.38	47.46	47.96	61.93	77.34	70.97	78.39	77.37	63.85	13.94	21.83	56.68
IPSBs (G-III+IV)	49.57	49.04	50.06	53.27	67.07	63.55	70.53	73.19	59.54	10.13	17.01	47.65
G-V	63.07	72.21	72.67	75.39	75.27	75.59	87.18	85.77	75.89	7.69	10.13	35.99
ASCBs	47.83	49.50	49.88	53.69	54.55	54.71	60.66	68.47	54.91	6.80	12.38	43.15
Average	51.30	53.40	53.80	57.05	61.48	60.45	67.48	72.03				
S.D.	6.87	10.64	10.67	11.72	13.71	11.84	14.33	9.37				
C.V. (%)	13.39	19.93	19.83	20.54	22.30	19.59	21.24	13.01				

Source: Performance Highlights, Various Issues, 1998-99 to 2005-06

The growth in C-D ratio was the highest (56.68 pc) in new private sector banks and nationalized banks followed with 43.92 pc growth rate but witnessed the least average C-D ratio i.e. 52.17 pc among all bank groups, whereas old private sector banks witnessed the least growth rate i.e. 28.51 pc. Average C-D ratio was the highest i.e. 75.89 pc in foreign banks. All scheduled commercial banks with 54.91 pc average C-D ratio recorded 43.15 pc growth. The level of credits in deposits was improving in all bank groups as all bank groups have their credit level above 50 pc of their deposits where new private sector banks were putting much efforts and gained momentum share in credit market as foreign banks also have an excellent amount of C-D ratio i.e. 75.89 pc, a sign of their proper credit disbursement policy.

Overall, it is concluded that new private sector banks and foreign banks have better performance in most of the selected factors as spread, profitability, cost, deposits, C-D ratio etc but public sector banks although following these bank groups with improved profitability, priority sector advances, decreasing non-performing assets but still witnessing overall decline in their performance in terms of continues deterioration in profitability.

CORRELATION CO-EFFICIENT AMONG PROFITABILITY AND ITS DETERMINANTS

From the ongoing analysis, it is observed that majority of the banks have recorded continuous deterioration in their profitability. There are some factors which affect the profitability at the large. Hence, there is a need to examine the factors that affect the profitability positively and negatively. 12 prime determinants, studied in the last part have their impact on profitability either positive or negative. Here an attempt is made to study the correlation between profitability and these determinants separately so that it can be concluded that which factor contributes to improve the profitability and which tends to deterioration in profitability.

G-I (Nationalized Banks): Table 14 shows the co-efficient correlation between profitability of nationalized banks and its selected 12 determinants. Profitability has significant and positive correlation with X6 (non-interest income as percentage of total income) at 1 pc significant level, X8 (spread as percentage of total assets) and X12 (saving deposits as percentage of total deposits) at 5 pc significant

level that means increase in saving deposits, non-interest income and spread lead to increase in profitability. Correlation was significant but negative between profitability and X4 (net non-performing assets as percentage of net advances) at 5 pc significant level, X5 (interest income as percentage of total income), X9 (burden as percentage of total assets) and X10 (current deposits as percentage of total deposits) at 1 pc level of significance that means increase in these factors lead decrease in profitability. In case of other factors, it was insignificant.

From this table, it also emerges that few independent variables also have significant correlation with other independent variables. X2 (rural branches as percentage of total branches) have significant correlation with number of variables like X3, X4, X10, X11, X12 & X13 at 1 pc significant level except X10 which was significant at 5 pc level and among these X12 (saving deposits as percentage of total deposits) has the highest (-0.982) correlation. Similarly, X3 has significant correlation with X4, X10, X11 & X13 where X4 (net non-performing assets as percentage of net advances) has the highest correlation (-0.955) that means non-performing assets have the highest impact on priority sector advances. In the same way, X13 has significant correlation with X2, X3, X4, X11 and X12 at 1 pc level and X10 at 5 pc significant level, where X2 (rural branches as percentage of total branches) has high correlation (-0.973).

Hypothesis Testing: It is evident from table 14 that hypothesis (profitability has insignificant correlation with its selected factors/variables) was rejected as it has significant correlation with X4, X5, X6, X8, X9, X10 and X12.

G-II (SBI Group): Table 15 exhibits that profitability of G-II is significantly and positively correlated with only X6 (non-interest income as percentage of total income) at 5 pc significant level whereas significantly but negatively correlated with X4, X5 and X10 at 5 pc significant level where correlation with X4 (net non-performing assets to net advances) was the highest (-0.806). It has positive but insignificant correlation with X3, X8, X12 and X13 whereas insignificant and negative correlation with X2, X7 & X9. It is observed that profitability of SBI group was affected negatively by number of variables where non-performing assets were affecting the profitability at the highest that contributed to increase in profitability.

Among the independent variables X2 has significant correlation with X4, X8, X10 and X12 where X4 (net non-performing assets as percentage of net advances) has the highest correlation (-0.967). Similarly, X3 has significant correlation with X8, X11, X12 and X13 and among these, X13 (credit to deposits ratio) has the highest correlation i.e. 0.914. In the same way, X2, X3, X4, X8 and X11 have significant correlation with X12 (saving deposits as percentage of total deposits) and X3 (priority sector advances as percentage of total advances) have shown the highest and positive correlation i.e. 0.892.

Hypothesis Testing: Table 15 shows that hypothesis regarding the correlation between profitability and selected variables was rejected in some cases as profitability has significant correlation with X4, X5, X6 and X10 while it has been accepted in case of correlation with other variables because correlation is insignificant.

G-III (Old private sector banks): Table 16 shows that profitability of old private sector banks was significantly and positively correlated with only one variable i.e. X6 (non-interest income as percentage

of total income) i.e. 0.899 at 1 pc level of significance whereas it has significant but negative correlation with X5 (-0.899) and X9 (-0.848) at 1 pc significant level. It is insignificantly in case of other factors that means profitability of old private sector banks was deteriorating because of negative effect of most of the variables like spread, current deposits, saving deposits and credits.

Among the independent variables, X2 has significant correlation with X3, X4, X8, X10 and X11 where X10 (current deposits as percentage of total deposits) has the highest and positive correlation. Similarly, X4 has significant correlation with X7, X8, X11, X12 and X13 at 1 pc significant level as X13 (credit to deposit ratio) witnessed the highest and negative correlation (-0.889). In the same way X13 has significant correlation with X4, X7, X8, X9, X11 and X12 and X12 (saving deposits to total deposits) has the highest and positive correlation i.e. 0.892.

Hypothesis Testing: Table 16 exhibits that hypothesis regarding the correlation between profitability and selected variables has been rejected in case of correlation between profitability and X5, X6 and X9 as have significant correlation while it was accepted in case of correlation with other variables because correlation is insignificant.

G-IV (New private sector banks): Table 17 shows that profitability of new private sector banks have not significant correlation even with a single variable but still most of the variables are positively correlated with profitability such as X3, X6, X7, X8, X9, X10, X12 and X13 whereas others have negative correlation that means profitability of new private sector banks was not significantly correlated with any of the selected variables.

Among the independent variables, X3 (priority sector advances to total advances) has a significant correlation with X4, X7, X11 and X12 at 5 pc level of significant where X7 (establishment expenditure to total expenditure) has the highest and positive correlation i.e. 0.860. X5 (interest income to total income) has significant correlation with X7, X11, X12 and X13 whereas X13 has the highest correlation (-0.933). Similarly, X11, X12 & X13 have significant correlation with number of some other independent variables.

Hypothesis Testing: From table 17 it is clear that hypothesis for insignificant correlation between profitability and selected variables, has been accepted because it has insignificant correlation with the selected variables.

G-V (Foreign banks): Table 18 shows that profitability of foreign banks is significantly and positively correlated with X6 (non-interest income as percentage of total income), X12 (saving deposits as percentage of total deposits) at 5 pc level of significant whereas it was significantly but negatively correlated with X4 (net non-performing assets as percentage of net advances) and X5 (interest income as percentage of total income) at 5 pc significant level. It was insignificantly correlated with the remaining variable where X3, X7, X8, X10 and X13 have positive correlation.

Among independent variables, except X8 & X9 all other variables have significant correlation at 1 pc significant level with number of other independent variables where X3 has significant correlation with X5, X6, X7, X10, X11, X12 and X13 and X10 (current deposits to total deposits) has the highest and positive correlation (0.972). X4 has significant correlation with X5, X6, X7, X9, X11 and X12 and X5 and X6 has the highest correlation i.e. 0.905 and -0.905 respectively.

Hypothesis Testing: Table 18 exhibits that hypothesis has been rejected only in case of correlation between profitability and X4, X 5, X6 and X12 as have significant correlation while it was accepted in case of correlation with other variables.

Overall, profitability of foreign banks was highly affected by X4, X5, X6 and X12 while other variables have little bit importance in profitability.

REGRESSION ANALYSIS

As correlation analysis shows only positive and negative effect of different variables on profitability but doesn't tell to what extent a particular variable can affect the profitability. Regression analysis helps in this context where R-square is calculated to estimate the extent of impact of independent variables on dependent variable. Table 19 shows that profitability of G-I is highly affected by X5 (interest income to total income) and X6 (non-interest income to total income) as X5 has negative impact of 90 pc and X6 has positive impact of 90 pc that means with the change of one unit of these variables, profitability will be changed by 90 pc. X7 (establishment expenditure as percentage of total expenditure) has the least effect but negative as R-square is only 0.246.

In case of SBI group, X4 (net non-performing assets as percentage of net advances) has the highest effect on its profitability but negative as reflected 0.656 value of R-square whereas X11 (fixed deposits to total deposits) was affecting the profitability negatively at the lowest rate i.e. only 5 pc.

Profitability of old private sector banks was highly effected by X5 (interest income to total income) and X6 (non-interest income to total income) having 81 pc effect in terms of R-square value (0.808) as X5 was affecting the profitability negatively and X6 was affecting it positively. X8 (spread as percentage of total assets) has the least effect but negative that was only 1 pc.

Profitability of new private sector banks was highly and negatively affected by X3 (priority sector advances to total advance) but still low that was 0.348 in terms of R-square whereas it was affected by X2 (rural branches as percentage of total branches) at the lowest rate i.e. 0.008 that means the profitability of new private sector banks was not affected by these determinants at significant rate.

Table 19: Regression Analysis

Variables	G-I		G-II		G-III		G-IV		G-V	
	r	R^2	r	R^2	r	R^2	r	R^2	r	R^2
X_2	-0.674	0.454	-0.689	0.475	-0.189	0.036	-0.091	0.008	-	-
X_3	0.702	0.493	0.306	0.094	-0.477	0.227	0.590	0.348	0.409	0.167
X_4	-0.786*	0.618	-0.806*	0.656	0.198	0.039	-0.497	0.247	-0.782*	0.612
X_5	-0.949**	0.901	-0.787*	0.619	-0.899**	0.808	-0.453	0.205	-0.833*	0.694
X_6	0.949**	0.901	0.787*	0.619	0.899**	0.808	0.319	0.102	0.832*	0.692
X_7	-0.496	0.246	-0.527	0.278	-0.398	0.158	0.419	0.176	0.662	0.438
X_8	0.783*	0.613	0.423	0.179	-0.109	0.012	0.687	0.472	0.110	0.012
X_9	-0.841**	0.707	-0.597	0.356	-0.848**	0.719	0.492	0.242	-0.686	0.471
X_{10}	-0.874**	0.764	-0.710*	0.504	-0.315	0.099	0.467	0.218	0.552	0.305
X_{11}	-0.536	0.287	-0.222	0.049	0.165	0.027	-0.564	0.318	-0.657	0.432
X_{12}	0.783*	0.613	0.658	0.433	-0.357	0.127	0.497	0.247	0.745*	0.555
X_{13}	0.543	0.295	0.305	0.093	-0.393	0.154	0.517	0.267	0.637	0.406

Source: Computed from Table No. 4.13 to 4.17

Note: **Correlation is Significant at 0.01 level (2-tailed)

*Correlation is Significant at 0.05 level (2-tailed)

Profitability of foreign banks was highly but negatively affected by X5 (interest income to total income) and X6 (non-interest income to total income) having 0.694 value in terms of R-square as X5 have negative and X6 has positive affect on profitability whereas X8 (Spread as percentage of total assets) has the least but positive effect on profitability.

Overall, profitability was highly affected by X5, X6 (nationalized banks, old private sector banks and foreign banks) and by X4 (SBI Group) and X3 (new private sector banks group) whereas spread and establishment expenditure have correlation with profitability but affected at the lowest rate. Important to note here is that the factors that affect the profitability at the highest have negative effect on it as interest income was one of them. Similarly, net non-performing assets also have negative correlation with profitability in almost all the banks and further contributed in profitability improvement. It reflected the efforts of the bank groups to bring down their non-performing assets level at the lowest. Other variables like establishment expenditure, burden etc. were affecting the profitability negatively and led to deterioration in profitability. Hence, it is concluded from these results that to have excellent profitability performance, banks need to have excellent performance in managing burden and establishment expenditure and to improve the level of their deposits along with best portfolio for investments.

From the foregoing analysis, it may be concluded that new private sector banks have gained momentum in rural branches' share and that of priority sector advances with the highest rate of increase although the average share was the highest in public sector banks. Foreign banks have recorded the highest decline in non-performing assets, interest income and fixed deposits whereas the highest growth was witnessed in current deposits. But new private sector banks have the lowest level of non-performing assets (2.86 pc) and the highest level of non-interest income (26.04 pc) whereas the highest spread and total credits' share in total deposits was recorded by the foreign banks.

Overall, foreign banks and new private sector banks are gaining dominant positions with improved profitability more particularly due to the highest decline in non-performing assets although having large amount of establishment expenditure. These factors are affecting the profitability of all bank groups significantly where the most dominating factors are interest and non-interest income, non-performing assets and priority sector advances which affect the profitability at the highest rates.

DISCUSSION

We may conclude from the paper that there is a globalization of the financial services and IT is playing vital role to globalized the financial services. But unfortunately, our public sector banks lacking behind. They are facing a bundle of serious obstacles. Some of glaring issues which they are facing:

Major Issues

- Less interest in fee-based activities by the public sector banks.
- High level of establishment expenditure in public sector banks.
- High level of burden in old private sector banks.
- Decreasing level of current deposits of public sector banks and old private sector banks.
- Decreasing fixed deposits of all bank groups except old private sector banks group.
- Deterioration in profitability of some commercial banks.

POLICY RECOMMENDATIONS

Although a lot of reforms have been made for Indian banks, still there is a need to modify the policies of public sector banks and old private sector banks. At present, they are facing many internal and external challenges, which are hindering their performance, but these banks can convert the current challenges into opportunities with some modifications in accordance with the globalization and changes in the technology as financial markets, world over have become closely integrated. Customers can access their accounts anywhere anytime. Deregulation and liberalization has opened up new opportunities for banks but at the same time the pressure of competition has led to narrowing spreads, shrinking margins, consolidation and restructuring. In the wind of changes, sweep across the world, the banks will need to be equipped to handle large. There some suggestions are given, which may be helpful to the banks with poor performance, to improve their performance.

Cost Control: Establishment expenditure is the second largest item of the total expenditure of banks needs to be monitored regularly. High level of establishment expenditure in public sector banks is observed from the analysis, is a major cause for reduction in their profitability, it is mainly because of overstaffing and secondly their improper utilization. This expenditure may be reduced by putting proper control over manpower utilization. Human resources should be utilized properly to get optimum advantage because it is also possible to attain higher business volume with minimum staff, if utilized properly and thus establishment expenditure can be reduced and profitability can be improved for this purpose VRS should be introduced with some modifications.

Diversification of Services: High level of burden has impacted the profitability of public sector banks and old private sector banks negatively at the highest and spread, although improved in all bank groups but it has negatively affected the profitability of old private sector banks. It is mainly because interest income and expenditure are decreasing continuously due to deregulation of interest rates whereas non-interest and expenditure is increasing because banks are now concentrating more towards fee based activities. But public sector banks and old private sector banks are split and dependent on deposits, advances and other interest bearing activities rather to opt for fee based activities. Hence, they have the highest level of burden and low level of spread. The banks should concentrate more towards diversification of their resources because there are number of non banking financial services such as consultancy services, merchant banking, ancillary services etc. which gives handsome income to the banks. This is the only competitive strategy that new private sector banks and foreign banks are providing services to the customers in innovative ways and facilitates them by providing every comfort money management, ticket reservation anywhere and anytime cash withdraw, fee deposit and other bill payments etc. that is why they are now the leader of the bank market.

Deposit Mobilizations: Current and fixed deposits are declining in the banks, which is not a sign of their sound liquidity. There is a need to explore to the maximum potential for deposit with some attractive schemes and interest rates. Fixed deposits add to long term finance and make liquidity position sound, secondly contributes maximum to the profitability. Even new private sector banks and foreign banks have good share of fixed deposits while these are lower and decreasing in case of public sector banks and foreign banks. Hence, these banks need to put efforts to explore the maximum number of potentials.

Full Computerization: New private sector banks and foreign banks are performing well with the help of advanced technologies and gaining a momentum in the market. Public sector banks should also require to be computerized their all branches and used latest technologies to serve the customers efficiently, it will help them to survive in the market with handsome income. For this purpose, they need technically experienced and learned staff. Therefore, they should provide training to the existing bank employees for bank technology, and then they can also hire some experts because technical fault leads frustration which further motivates the people not to change. They should be prepared to adopt technologies in easy way.

Development of Rural Branches: Public sector banks have the highest number of branches in the rural areas of India, but these all are not performing well even not affecting the profitability at significant rate, but still require to be developed properly with some new and attractive services and by creating employee-friendly environment. Rural area is a major part of India, so demands development by making the rural branches efficient either through merger/acquisition or by making the individual branches strong enough to give profits rather to contribute losses. For this purpose, rural people should also be make aware about the banking services along with the benefits.

Besides all these, public sector banks and old private sector banks or in other sense poor performing banks should make effective efforts for efficient risk management, stress management, knowledge management, customer relationship management, entry in fee-based activities at large scale, concentrate more on retail banking, merchant banking, e-banking services with latest technology etc. These banks should adopt corporate governance along with merger and acquisition of weak banks with some other banks so that they can be made competitive in the local as well as global market. They should make their own competitive strategies in the light of international standards to compete with their counterparts efficiently. Public sector banks are the major and important part of Indian banking industry hence needs to improve it with the help of RBI and government as they should make these banks free of regulatory bindings.

Future Agenda

No study is complete in itself so the following areas can be explored for further study in this area of research:

1. Comprehensive study of comparative profitability behaviour of all individual banks in urban, semi-urban and rural areas.
2. Comprehensive study for SWOT analysis for banks with poor performance in profitability.
3. Feasibility and Viability of e-banks in rural areas and semi-urban areas.
4. In-depth study for profitability analysis of banks at branch level.
5. Profitability behaviour of banks in the post-merger and acquisition era.

CONCLUSION

India is now Asia's third largest economy and has the world's fourth largest foreign exchange reserves. Technology, competition and benchmarking to the best international practices have to be the driving force of India's development efforts. The country is making rapid strides in all these areas. Technology is

getting upgraded rapidly and competition in the market place has become fierce. The vibrant IT industry is contributing immensely by providing information about latest technology and international business practices. Hence, all banks should adopt the latest technology with customer friendly and innovative products and services to explore the global opportunities.

End Note:

PSBs-Public Sector Banks
RRBs-Regional Rural Banks
NPAs-Non-Performance Assets
O-World Trade Organization

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A STUDY ON THE SIGNIFICANCE OF INFORMATION TECHNOLOGY (IT) & IT ENABLED SERVICES (ITES) IN INDIAN BANKING SERVICES

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Abstract

Information Technology plays a very vital role in the banking sector in India. IT plays crucial role in the success of banking sector. IT services like E-CRM sets up high landmarks in banking Services in India. It also goes hand in hand with the fast changing economic environment. The ultimate performance of a bank depends upon the satisfaction of its customers. . In the emerging competitive and technological driven banking era, banks have to try very hard for retaining and increasing their customer base. INFORMATION TECHNOLOGY (IT) have emerged as a boon in the corporate sector, it is taken as one of the effective tool in this direction by the banks. It focuses on defining the customer as valuable in the long-term. It helps to view customer relationships as learning relationships. The concept of CRM, seen in the context of e-business, it translates into e-CRM, which essentially deals with managing customer views over the web. The present paper attempts to analyze the concept of information technology with context to E-CRM in Indian banks from its various dimensions including specifically its need, procedure, present scenario and future prospects.

Key Words :-Information Technology, ITES, CRM, economic environment, e-business

Introduction

Technology by changing the production techniques results in improvement in productivity. History has shown that modern economic growth has been inspired by the rapid and persistent upgradation of technology and scientific knowledge. It is estimated that one-third to one-half of the growth experienced by the industrially advanced countries has come from technological progress. Thus technology has emerged as the principal driving force for long term economic

growth. Economic growth results from slow and steady improvements in technology and from the "Break Through" innovations. Break through innovations are unpredictable and such innovations when they come up change the direction of the entire industrial structure. Technological innovations of a fundamental nature started two centuries ago. They began with the revolution in the textile sector. We are now in the fifth or the sixth wave of innovations and the current technological innovations have ushered

in the electronic age. E-CRM (electronic-customer relationship management) has transformed the way of banking in India. Far reaching changes in computers and communications technology have altered our way of life. It is this change which has also fundamentally altered the way in which banking is being performed. The basic functions of banking have remained the same but the way in which banking services are provided has altered. India is somewhat of a late comer to the technology revolution in banking. The process of computerization of the banking industry in India started in the mid-1980s. It had a Difficult beginning. Unfortunately, the trade unions were opposed to it. They did not at that stage fully grasp the potential of technology.

E-CRM IN INDIA

The E-CRM or electronic customer relationship marketing concept is derived from e-commerce. It also uses net environment i.e., intranet, extranet and internet. Electronic CRM concerns all forms of managing relationships with customers making use of information technology (IT). E-CRM is enterprises using IT to integrate internal organization resources and external marketing strategies to understand and fulfill their customers' needs. Comparing with traditional CRM, the integrated information for E-CRM intra organizational collaboration can be more efficient to communicate with customers. The concept of relationship marketing was first founded by Leonard Berry in 1983. He considered it to consist of attracting, maintaining and enhancing customer relationships within organizations. In the years that followed, companies were engaging more and more in a meaningful dialogue with individual customers. In doing so, new organizational forms as well as technologies were used, eventually resulting in what we know as customer relationship management. The main difference between RM and CRM is that the first does not acknowledge the use of technology, where the latter uses Information Technology (IT) in implementing RM strategies.

As the Internet is becoming more and more important in business life, many companies consider it as an opportunity to reduce customer-service costs, tighten customer relationships and most important, further personalize marketing messages and enable mass customization. E-CRM is being adopted by companies because it increases customer loyalty and customer retention by improving customer satisfaction, one of the objectives of e-CRM. E-loyalty results in long-term profits for online retailers because they incur less costs of recruiting new customers, plus they have an increase in customer retention. Together with the creation of sales force automation (SFA), where electronic methods were used to gather data and analyze customer information, the trend of the upcoming Internet can be seen as the foundation of what we know as e-CRM today.

AS WE IMPLEMENT E-CRM PROCESS, THERE ARE THREE STEPS LIFE CYCLE

1. Data collection: About customers preference information for actively (answer knowledge) and passively (surfing record) ways via website, email, questionnaire.
2. Data aggregation: Filter and analysis for firm's specific needs to fulfill their customers.
3. Customer interaction: According to customer's need, company provide the proper feedback them.

It can be defined as activities to manage customer relationships by using the Internet, web browsers or other electronic touch points. The challenge hereby is to offer communication and information on the right topic, in the right amount, and at the right time that fits the customer's specific needs.

TECHNIQUES IN E BANKING

The following are some of the latest IT Enabled Services (ITES) techniques used by banks in Offering new products and services to its customers.

ATMs: At the End of June 2012 installed number of ATMs in the country is 99,218, which is likely to be more than 4000 by next year. Most of the demand for this technology is coming from State owned banks. Until now, ATM services have been confined to deposits and withdrawal from bank accounts by customers. The growth in ATMs has been fuelled by a race among banks to expand their customer base by going in for more value added services (bill payments and Mini statement etc) on these machines. Indian Banks together have an ATM network of 99,218 machines dispensing cash across the country at end of June-2012. This includes ATM at Banks as well as Non-Bank locations. SBI leads the pack with 22,469 ATMs followed by Axis Bank with 10,337 ATMs. The difference between the First and Second is quite large for anyone else to come and fill the gap. Surprisingly, Barclays and American Express do not have any ATMs in India.

Mobile Banking:-In year 2002 mobile banking was started in India by sms banking. It is very useful for making inquiries about their account on their mobile phones. with the coming of smart phones and excessive usage of internet on mobile phones, application based banking has emerged as a new concept at present. The reserve bank of India (RBI) has already issued notification regarding mobile banking transactions in India. The telecom regulatory authority of India (TRAI) has also issued the mobile banking (quality of service) regulations 2012.

Internet banking: - The use of computers had led to introduction of online banking in India. The use of the modern innovation and computerization of the banking sector of India has increased many fold after the economic liberalization of 1991 as the country's banking sector has been exposed to the world's market. The Indian banks were finding it difficult to compete with the international banks in terms of the customer service without the use of the information technology and computers. Net Banking is HDFC Bank's Internet banking service. Through Net Banking, you can perform all your transactions online without leaving the comfort of your own home. HDFC Bank has implemented an extra security solution for its customers - Secure Access Secure Access is an additional layer of security that is essentially a solution protecting your account from hackers and fraudsters. Secure Access requires a one-time registration effort from your side.

E-Mail: - The most common and basic use of Internet is the exchange of e-mail (electronic mail). It is an extremely powerful and revolutionary result of Internet, which has facilitated almost instantaneous communication with people in any part of the globe. With enhancements like attachment of documents, audio, video and voice mail, this segment of Internet is fast expanding as the most used communication medium for the whole world. Many websites offer e-mail as a free facility to individuals. Many corporates have interfaced their private networks with Internet in order to make their e-mail accessible from outside their corporate network.

Computer networking: - bank uses networks are, say you go and open a bank account. For you to be able to withdraw money from a different town/city, that would mean (without networks) somebody is going to have to call every bank and give your details and then every time you lodge or take out money they have to call all the banks again to keep them uptodate on your account. With networks, every bank can see your account, whats in your account and it saves having to get somebody call other banks every time you make a withdrawal.

Credit cards: - credit cards and online credit cards helps you in various ways. Your total cash and credit limits, billed and unbilled transactions, payment due date and reward points you have earned on your card. This helps you monitor your Credit Card transactions and know when your Credit Card bills are due for payment. You can see your reward points and enjoy the benefits they offer.

Future prospect of IT with prospect to e-crm

Despite all the efforts, these E-Banking systems have remained largely unnoticed by Indian customers. Therefore, customer perception is of utmost importance for successfully providing E-Banking services. While India's emerging market holds great commercial opportunities for banks (both domestic and international), these banks in order to be successful, need to gain a better understanding of consumers' perceptions and adoption of E-Banking. Many factors play a part in ensuring that the implementation any level of e -CRM is successful. One obvious way it could be measured is by the ability for the system to add value to the existing business. There are four suggested implementation steps that affect the viability of a project like this: Developing customer-centric strategies, Redesigning workflow management systems, Re-engineering work processes and Supporting with the right technologies.

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A STUDY OF "GLASS CEILING" IN INDIAN CORPORATE CULTURE

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ABSTRACT

In this era of globalization women's starts dominating position in industry, government and other leading areas. The purpose of this paper is to determine whether the glass ceiling exists in organizations located near Chandigarh region. The study specifically concentrated on the barriers to the upward mobility of women, based on constructs such as social roles, personal characteristics and situational barriers. There are still thousand of issues which come in the path of growth, and development of women. A descriptive research design is used in the study. This study also tries to highlight all those issues which might help women's in breaking the glass ceiling.

Keywords : Glass Ceiling, Globalization, Dominating Position, Barriers, Characteristics

INTRODUCTION:

Over the past few years women participation in the workforce has significantly increased. But it is commonly believed that women have less career advancement opportunities than do men. Some of the reasons of this problem for women in their career are clearly connected to the idea of a glass ceiling. "Glass Ceiling" refers to invisible barriers that impede the career advancement of women. It also refers to situations where the advancement of a qualified person within the hierarchy of an organization is halted at a particular level because of some form of discrimination, most commonly sexism or racism. This situation is referred to as a "ceiling" as there is a limitation blocking upward advancement, and "glass" (transparent) because the limitation is not immediately apparent and is normally an unwritten and unofficial policy. The disparity between male and female representation in public and private sector is wide in most of the third world countries. Women have little or unequal access to employment. An insignificant number of women occupy by key decision making position. Women have been unable to exert power over economic structure in their societies as they are virtually absent from or are poorly represented in economic decision making. Social or economic policies wholly or partially directed towards women remain in adequate in resolving problems as they often reflect male perceptions and orientations, thereby contributing to inequalities between the two genders. The International Labour Organization (ILO) clarifies that the promotion of women's participation in economic activity, including the management and decision making levels, is not simply a question of equity, but also one of necessity

for viable and sustainable national development . It is generally argued that in the developing world, like India, where almost half the population is women, the need for involving more women in the development process can make them more empowered and hence increase the chances for development. Research indicates that better education and training facilities for women create greater access in development process. In the work place, discriminatory attitudes include women are less capable physically, mentally, and emotionally in certain challenges; they are temperamental and lack motivation, they do well in traditional roles as school teachers, health and welfare officers rather than in administrative and managerial positions; their efficiency and commitment last for only a limited time. They have health problems and are sickness prone and therefore frequently remain absent. Pregnancies interrupt their regular work and their careers are disrupted by family interest. But over the past few years it has been observed that women participation in both public and private employment sector in India has noticeably improved. Although women participation in workforce has increased but, a very few number of managerial positions are being filled by women. The basic purpose of this research is to find out the obstacles for Indian women in glass ceiling and to measure the various basic facilities provided by the company for women safety in the job. The study also attempts to identify that how a women can break glass ceiling on workplace. A survey of women provides evidence relating to find out the obstacles of glass ceiling and possible factors which effect their career growth.

MEANING AND DEFINITION OF GLASS CEILING

In HR term glass ceiling refers to an artificial barrier based on attitudinal or organizational bias prevents qualified women/ other minorities from advancing upward into senior management level positions or situations where the advancement of a qualified person within the hierarchy of an organization is stopped at a lower level because of some form of discrimination, most commonly sexism or racism, but since the term was coined, “glass ceiling” has also come to describe the limited advancement of the deaf, blind, disabled, and aged. It is believed to be an unofficial, invisible barrier that prevents women and minorities from advancing in businesses or barrier to career advancement an unofficial but real impediment to some body's advancement into upper level management positions because of discrimination based on the person's gender, age, race, ethnicity or sexual preference. It is also defined as an unacknowledged discriminatory barrier that prevents women and minorities from rising to positions of power or responsibility, as within a corporation. It is glass because it's not usually a visible barrier, and a woman may not be aware of its existence until she "hits" the barrier. In other words, it's not an explicit practice. The term was popularized in the 1980s.

The phrase glass ceiling refers to an invisible barrier that prevents someone from achieving further success. It is most often used in the context of someone's age, gender, or ethnicity keeping them from advancing to a certain point in a business or when he or she cannot or will not be promoted to a higher level of position/power. Glass ceilings are most often observed in the workplace and are usually a barrier to achieving power and success equal to that of a more dominant population. An example would be a woman who has better skills, talent, and education than her male peers, but is obviously being passed over for promotions.

HISTORY

The concept of glass ceiling was originally introduced outside of print media at the National Press Club in July 1979 at a Conference of the Women's Institute for Freedom of the Press by Katherine Lawrence of Hewlett Packard. This was part of an ongoing discussion of a clash between written policies of promotion versus action opportunities for women. The expression “the glass ceiling” first appeared in the Wall Street Journal in 1986 and was then used in the title of an academic article by A.M. Morrison and others published in 1987. Entitled “Breaking the Glass Ceiling: Can Women Reach the Top of America's Largest Corporations?”, it looked at the persistent failure of women to climb as far up the corporate ladder as might be expected from their representation in the working population as a whole. The idea behind the expression was that a transparent barrier, a glass ceiling, blocked them. Invisible from the bottom, when women started their careers, it was steely strong in stopping them attaining equality with men later on. A secondary issue is that of women's pay. There is evidence that even when women do reach the highest levels of corporate management, they do not receive the same pay as men for the same job; a figure of 75% is often quoted. And rather than getting better over time, the position seems to be deteriorating. United States Senator Hillary Clinton used the term glass ceiling in her speech to endorse Senator Barack Obama for President: "And although we weren't able to shatter that highest, hardest glass ceiling this time, thanks to you, it's got about 18 million cracks in it."

HR professionals are also required to be knowledgeable of employment laws, programs and practices for their organization. Because the law provides protection for certain demographic groups, such as women, in the labor market, HR professionals need to understand the potential impact of glass-ceiling barriers (e.g., discrimination) on women--including women of color--regarding advancement in the workplace.

STATUS OF WOMEN IN SOCIETY

India maybe was/is a golden bird but only in the books, which were inked mostly by fabled words. Let's open the doors of reality. Well, India is in dark ages, in fact, dark ages were much better than this age. At least, they were not shameless and greedy unlike today. The situation of women in India is not at all, in any way, better.

Yes, we see women in metros and big cities working and doing great things but who peeps in their personal lives? Do we really know that all women are content? Are they really happy? And here, we scream about the development and their rights. If we leave women of metros aside and focus on rural India, then we cannot even imagine their conditions. The reality is totally different and we see what media shows us. It is very difficult to even measure the atrocities that they face behind their walls. The women who are reading this, silently, also very well know what issues they face internally in their lives and many women don't even speak about them as they silently gulp everything down due to lack of understanding that men have besides their family, friends and the so-called 'great' society, which stands on baseless structure with the pillars of superficial prominence. Many of the wrongs that are done to women have been encouraged by superstitions. The birth of a girl child is considered unfortunate and tin some states the custom of female infanticide is practiced. Girls are still not educated in many parts of our

country. They rare married off at an early age as the custom of child marriage still continues in rural areas.

Women are treated as domestic labor and have no financial or decision making rights. They are expected to obey their husbands and never assert themselves. Daughters still do not enjoy the same inheritance rights as sons and even when the law is in their favor, social custom does not permit them to assert their rights. Widows are not allowed to remarry and are often ill-treated. The custom of 'sati' or burning a widow on her husband's funeral pyre was practiced in our country and even till date cases are reported. Another social problem is of dowry. At the time of marriage, dowry is given by the girl's parents as many demands are made on them.

WORKING OF WOMEN IN SERVICE SECTOR

There has also discussed various factors related to work efficiency and work environment. It also provides the in-depth discussion on effective work place/work environment and their relation with work efficiency and job satisfaction of employees. Among fast growing developing countries, India is distinctive for the role of the service sector. Where earlier developers grew on the basis of exports of labour intensive manufactures, India has concentrated on services. Although there are other emerging markets where the share of services in GDP exceeds the share of manufacturing, India stands out for the size and dynamism of its service sector.

Functioning of women employees:

Within the individuals (skills and ability) women are at par with men as far as skills and ability are concerned. With respect to some personality, characteristics, they lack communication skills in social interactions. Women are more sincere and diligent to their jobs. Considering the diversity of roles they perform, their commitment is clearly visible. Women have to work harder than men to prove professional competence in spite of having comparable abilities. New female employees are bright, enthusiastic and willing. Those exhibiting relative passivity could be due to the lack of confidence.

REASONS FOR THE GLASS CEILING:

It is important to identify the reasons why women are not the force they ought to be.

Some of reasons are:

1. Woman's work is often unrecognized. If it is recognized, it is not paid, if is paid, is under paid.
2. Recognition of woman as a worker will result not only in fair wages and control over these Wages, but will also result in her recognizing and using her right to access resources.
3. A reasonable wage, control over that wage, access to resources will increase a woman's Mobility which will lead to opportunity for further knowledge, less fear, more self reliant and more self-confidence.

WOMEN IN SERVICE SECTOR :

Historically women may have taken up work for various reasons, but once they become employees, they have a specific role to play in the organization. Their understanding of this role would guide their

reactions and their attempts to solve some of the problems which generally management faces. It can be observed that women come to organizations with certain preconceived nations, which would prove counterproductive. These perceptions term from the accepted role priorities. For instance, men had always been the brad winners; hence women would not take this as their primary responsibility and adapt a more casual approach. For women in India, such emphasis has significance. Traditionally Indian ethos has been propagating 'role taking' approach with respect to one's life roles.

PROBLEMS FACED BY WOMEN AT WORKPLACE

Sexual Harassment: It is a major issue that women face at their workplace and many women fall victim of sexual harassment at workplace. At times employers try to take sexual favors from women employee in return of other benefits and promotions. It can be classified into various categories like

- Physical contact and advances
- Showing pornography
- A demand or request for sexual favors
- Any other unwelcome physical, verbal or non-verbal activities (like whistling, obscene jokes, comments about physical appearances, threats, etc.)

 # Unequal Pay: It is another issue that women face at their workplace. Even though, women prove to be more efficient than male employees most of the time, they are not paid equally.

 # Lack of Family Support: Lack of proper family support is another issue that working women suffers from. At times, the family doesn't support women to leave the household work and go to office. They also resist for women working till late in office which also hampers the performance of the women and this also affects their promotion.

 # Poor Security: It is another major issue that women face in the workplaces. Women working in BPO sector mostly fall victim of various crimes at workplace and this is due to lack of security provided to the employees. There are many cases that has been registered where women working at BPO sector have become victims of sexual abuses and rapes while going back home and this is due to lack of proper security.

 # Insufficient Maternity Leaves: Insufficient maternity leave is another major issue that is faced by a working mother. This not only affects the performance of women employees at work, but is also detrimental to their personal lives.

 # Absence of Role Models: People learn by following the footsteps of others. Young professionals often look to more experienced counterparts to learn the subtle 'tricks of the trade.' The best way to learn how to communicate ideas, set up a project road map, or even wears the proper attire at a corporate meeting is to study the styles of others.

The challenge, however, are those up-and-coming female leaders often don't have fellow-female role models to emulate. They've often looked to men for guidance — but there are nuances in communication styles between men and women. This lack of mentorship is a significant challenge to fostering the growth of women in the workplace within the highest levels of business.

EFFECTS OF GLASS CEILING

Diverse Workforce:-

One of the greatest challenges an organization has when trying to adopt a more inclusive environment is assimilation for any member outside of the dominant group. The interplay between power, ideology, and discursive acts which reinforce the hegemonic structure of organizations is the subject of much study. Everything from organizational symbols, rituals, and stories serve to maintain the position of power held by the dominant group. When organizations hire or promote individuals that are not part of this dominant group into management positions, a tension develops between the socially constructed organizational norm and acceptance of cultural diversity. Often these individuals are mentored and coached to adopt the necessary traits for inclusion into the privileged group as opposed to being embraced for their differences. According to the journal article "Cultural Diversity in the Workplace: The State of the Field", Marlene G. Fine explains that "those who assimilate are denied the ability to express their genuine selves in the workplace; they are forced to repress significant parts of their lives within a social context that frames a large part of their daily encounters with other people". Fine goes on to mention that "People who spend significant amounts of energy coping with an alien environment have less energy left to do their jobs. Assimilation does not just create a situation in which people who are different are likely to fail, it also decreases the productivity of organizations". That is, with a diverse workforce, management may have to work harder to reach the same level of productivity as with a less diverse workforce.

Leave jobs due to inequality: - Occupational inequality greatly affects the socioeconomic status of an individual which is linked with their access to resources like finding a job, buying a house, etc. If an individual experiences occupational inequality, it may be more difficult for them to find a job, advance in their job, get a loan or buy a house. Occupational standing can lead to predictions of outcomes such as social standing and wealth which have long-lasting effects on the individual as well as their dependents. Segregation by gender in the labor force is extremely high, hence the reason why there remain so many disparities and inequalities among men and women of equitable qualifications. The division of labor is a central feature for gender based inequality. Due to inequalities most of women's leave the job.

Lack of interpersonal skills:- Women tend to be worse at negotiations for themselves. They can be exceptional at negotiations on behalf of another person so it isn't about an inability to negotiate, but rather a social resistance to fighting for oneself. Women also are often less educated about how to make money. This again is social as women are often taught that their role will be to spend it and their husband will be the one to make it.

Do not possess leadership qualities:- According to the research, women are every bit as capable of being good political leaders as men. The same can be said of their ability to dominate the corporate boardroom. And according to a new Pew Research Center survey on women and leadership, it is found that women

indistinguishable from men on key leadership traits such as intelligence and capacity for innovation, with many saying they're stronger than men in terms of being compassionate and organized leaders.

Sexual harassment: - Sexual harassment is any unwelcome conduct of a sexual nature. If a reasonable person would anticipate this behavior might make you feel offended, humiliated or intimidated, it may be sexual harassment.

- Some examples of behavior that may be sexual harassment include:
- Sexually suggestive comments or jokes
- Intrusive questions about your private life or physical appearance
- Inappropriate staring or leering
- Unwelcome hugging, kissing or cornering or other types of inappropriate physical contact
- Sexually explicit text messages, images, phone calls or emails.

Little access to information network communication: - A large group of working women of India is in the rural and unorganized sectors. Socially the majorities of Indian women are still tradition bound and are in a disadvantageous position. Inequality in women's access to and participation in all communications systems, especially the media, and their insufficient mobilization to promote women's contribution to society. Women have little information and network communication links, due to this reason they don't get promotion in workplace.

Women Surpassing the Glass Ceiling

Although there is a glass ceiling, many women recently have surpassed that hurdle. When at the top management, many women feel isolated like outsiders. Most of the time they are the only female at that level and are surrounded by males. Many women have faced sexual harassment, wage inequality, blocked movement and gender stereotyped roles. Women are said to have different styles of leadership and management once they break the barrier. They are generalized to be more nurturing and caring in nature than men. Men are stereotypically, more "tough" and shrewd in business, which is sometimes seen as positive traits. Women's traditional role is in the home, taking care of children, and keeping house. The stereotype of maternal leadership stems from that. Some men in senior management that do not want to see women climb the corporate ladder believe that they do not have the qualities to lead a company. Many believe that making assumptions about the way women act in a leadership position perpetuates the stereotypes that cause the glass ceiling. There are many reasons why women have been able to break the barrier. Some believe that having women on an executive board is a positive thing. Women make 60% of all purchases in the United States, it is common sense to want their opinion. The more women that are accepted into management positions, the more will get promoted to senior management and serve as role models for the younger. Younger men have also been more accepting of female superiors. The perception of a woman's role is changing with the younger generation.

Women who break through the glass ceiling may also face a glass cliff whereby they are more likely than men to occupy risky or precarious leadership positions.

REVIEW OF LITERATURE

Inman, P. (1998). Women's career development at the glass ceiling. New Directions for Adult and Continuing Education, 80, 25-44. This article reviews literature to determine how glass ceilings may be shattered for women. The article emphasizes how to change the prevailing corporate culture rather than determining how women can best adjust to a male culture.

Cleveland, J. N., Stockdale, M., & Murphy, K. R. (2000). Women and Men in organizations: Sex and Gender Issues at Work. Mahwah, NJ: Erlbaum. This is a literature review of glass ceiling articles. The review provides various explanations for glass ceiling effect. It also discusses studies that document how women have broken the glass ceiling, and analyzes literature on non-White women.

Bain, O., & Cummings, W. (2000). Academe's glass ceiling: Societal, professional, organizational, and institutional barriers to the career advancement of academic women. Comparative Education Review, 44(4), 493-514. This study investigates the role of distinctive institutional traditions, or specific groups of academic systems, which influence opportunities for female advancement. This study is an analysis of the barriers or opportunities that are more or less favorable to women's advancement in academia. The study combines and contrasts results from cross-national macro statistics with those from recent international surveys of the academic professions.

Cotter, D. A., Herdsmen, J. M., Obadiah, S., & Vinemont, R. (2001). The glass ceiling effect. Social Forces, 80(2), 655-681. The purpose of this study is to extract four conditions that need to be met in order to define gender inequality as a glass ceiling effect. The proposed four-prong empirical test notes that a glass ceiling must represent a gender or racial difference that is not explained by other job-relevant characteristics of the employee, is greater at higher levels of an outcome, reside in the chances of advancement into higher levels, not merely the proportion of individuals currently at those higher levels, and lastly is a difference that increases over the course of a career.

Bell, M. P., McLaughlin, M. E., & Sequeira, J. M. (2002). Discrimination, harassment and the glass ceiling: Women executives as change agents. Journal of Business Ethics, 37(1), 65.This article discusses the relationship between discrimination, harassment and the glass ceiling, arguing that many of the factors which preclude women from occupying executive and managerial positions also foster sexual harassment. The authors assert that because overt discrimination, the glass ceiling and sexual harassment are all forms of sex discrimination, with some shared characteristics, efforts to eliminate one will necessarily address the others.

OBJECTIVES OF THE STUDY:-

The specific objectives of the study are as given below:-

1. To find out the obstacles for Indian women in glass ceiling.
2. To measure the various basic facilities provided by the company for women safety in the job.
3. To find the ways to break glass ceiling on workplace.

RESEARCH DESIGN

In this study, descriptive research design was used to study the Glass Ceiling in Indian Corporate Culture.

Descriptive research:

Descriptive research studies are those studies which are concerned with described the characteristics of particular individual. In descriptive as well as in diagnostic studies, the researcher must be able to define clearly, what he wants to measure and must find adequate methods for measuring it along with a clear cut definition of population he want to study. Since the aim is to obtain complete and accurate information in the said studies, the procedure to be used must be carefully planned. The research design must make enough provision for protection against bias and must maximize reliability, with due concern for the economical completion of the research study.

SAMPLE SIZE : Sample size of the study is 100 respondents

SAMPLING AREA: near about Chandigarh area

CONTACT METHOD: Personal Contacts and through telephonic interviews.

DATA ANALYSIS-The data have been analyzed using tables and graphs. For the purpose, MS-Excel was used.

FINDINGS

- 75% respondents believe that family obligation is their major barrier in career development.
- 65% respondents feel that Personal references are the promotion criterion used for women employees.
- 65% respondents feel inequalities in work environment being women.
- 76% respondents do not accepts transfer away from locality, if transfer in given them.
- 78% respondents face Male dominant as biggest challenge in workplace.
- 65 % of respondents are in favour that insurance policy or any healthcare facility is not provided by the company.
- 65% respondents are not able to lead work and family life smoothly.
- 75% respondents do not stay office beyond working hours.
- 68% respondents feels barrier in work because of being a women.
- 45% respondents are not aware about the salary deductions made by the company

BREAKING OF GLASS CEILING

INDIANS WHO BROKE THE GLASS CEILING - India is dominated by men. Women do not have proportionate representation in companies, and yet they are better off than women in other parts of the world when it comes to top positions. Eleven per cent of 240 large companies -- Indian-owned as well as multinational, private as well as state-owned -- have women CEOs, according to a study carried out by executive search firm EMA Partners. By contrast, only 3 per cent of the Fortune 500 companies have women CEOs.. "Given that roughly about 50 per cent of our population is female, that about 50 per cent of staff is female in most markets, the gender is hugely unrepresented in boards and at the CEO level," said EMA Partners International chairman James Douglas.

Shikha Sharma
Shikha Sharma heads Axis Bank. Shikha Sharma worked with the ICICI group for 28 years. Sharma is credited for the bank's growth in personal financial services."Amongst private and foreign banks, women almost outnumber men. This has been helped in no mean measure by women from ICICI Bank who have joined other financial institutions in recent times," said EMA Partners managing partner K Sudarshan.

Chanda Kochar
Chanda Kochhar is among the leading women in India's financial services sector. She took over as managing director and CEO of ICICI Bank from May 1, 2009. According to Chanda Kochhar Head of India's largest public sector bank with 10,000 plus employees now a day's companies are considering merit and not be biased to any gender and women should not expect to be treated differently in any field.

Kiran Mazumdar-Shaw
Eleven per cent of the Indian women CEOs are in the media and another 11 per cent in pharmaceuticals. Thus, Kiran Mazumdar-Shaw is the chairman and managing director one of the largest pharmaceutical company in India she also reached in the lime light of corporate world when she decided to fill majority of the vacancy in the organization with women's.

Indra Nooyi
Indra Nooyi is the newly appointed CEO of PepsiCo-the world's second-largest soft drink maker. She joins the select band of women who head Fortune 500 companies. Presently, there are only 10 Fortune 500 companies that are run by women, and Indra Nooyi is the 11th to break into the top echelons of power. Prior to becoming CEO, Indra Nooyi was President, Chief Financial Officer and a member of the Board of Directors of PepsiCo Inc.

SUGGESTION AND CONCLUSION

Suggestions:

1. Leadership training programs for women.
2. Examine the organisational culture and policies.
3. Drive change through management commitments.
4. Educate and support women in career development
5. Women should build relationship with others in the organisation or workplace.
6. Find a mentor. Having a mentor is powerful way to break the glass ceiling

CONCLUSION:

Thus, taking into account all above mentioned points, it is possible to conclude that nowadays the glass ceiling syndrome is still a serious problem. In fact, the position of women has not changed or improved substantially. In stark contrast, the life at the top is still white and male and the arguments in favor of the existence of equal opportunities for men and women seem to be not very convincing. At least statistics perfectly illustrates that women are not only underrepresented at the top positions, but they are also often discriminated and are not considered to be potentially prospective workers. As a result, the current leaders prefer to develop men as future leaders instead of developing women whose potential may be equal or even higher than that of some men that occupy high positions. Obviously, such a situation cannot remain unchanged and the problem of the glass ceiling still has to be solved in such a way that women can get a real opportunity to fully realize their potential and become leaders.

However, to end this paper on a more optimistic note we may do well to remember the words of Russell Madden who said, “Those who complain about glass ceilings should keep in mind that glass can be shattered if one strikes it hard enough, and long enough”. Hence, the women need to take up the reality of glass ceiling as a challenge to be overcome and men as an occasion to rise to the occasion by making way for the talented and deserving women rather than blocking their path for equal opportunities for advancement.

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IMPACT OF ECONOMIC REFORMS ON INDIA'S TRADE BALANCE AND FOREIGN EXCHANGE RESERVE-

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ABSTRACT

In India, at the end of March 1991 there was acute shortage of foreign exchange, high inflation and deficit in balance of payment. So, the government of India took initiatives to bring reforms in the external sector. To progress the external scenario following measures were taken such as imports were liberalized, foreign investment was welcomed and Indian currency was devaluated. The present study is an attempt to find out how far these reforms in the external scenario have brought changes in balance of trade and foreign exchange reserves. The study is descriptive in nature and based on secondary data collected from CMIE database and journals and various websites. Data has been analyzed on the basis of percentage and graphs. The result shows that foreign exchange reserves are increasing while balance of trade is still in deficit.

Keywords: Economic reforms, Balance of trade and Foreign exchange reserve.

Introduction : There was lot of restrictions on the foreign trade till the early 1980s such as high tariffs and non tariff barrier, tariff structure and import licensing system. During this period there was high inflation, giant trade deficit, massive debt from both foreign and domestic, descend in foreign exchange reserve. In India, at the end of March 1991foreign reserves accumulation was less than six billion dollar. This was equivalent to pay 15 days' imports. The country was on the edge of default in the discharge of its international debt obligations. In the private sector, there was damage to the entrepreneurship and innovation due to the system of licenses and permits. Public sector became sick and inefficient due to the high political interference. The government of India tried to overcome from this crisis by borrowing from the International monetary fund (IMF) but did not get success. In 1991, Due to financial crisis and pressure from international organizations like the World Bank and IMF there was amendment in the Indian economic policies

At the initial stage of reforms, aim of the trade policies was to support domestic output, and promotion of exports leading which will reduce trade deficit. Due to changes in economic reforms, Indian market has turn into center area for foreign investor. In developing countries like India, there has been enormous demand of foreign capital because it will increase productivity as well as enhance the foreign exchange reserves which will be beneficial for meeting trade deficit of India. Developing country like India Foreign exchange reserves are medium of exchange in international market to import various goods and services. Thus enhance in the foreign reserves may be expected to accompany boost in import of goods and services. In the era of globalization and the changes in the international trade pattern emphasize the factors of a country's balance of trade position.

Foreign Exchange Reserve: In India, Foreign Exchange Reserve has three motives i.e., transaction, speculative and precautionary purposes for holding reserves. Foreign Exchange reserves are the instrument to maintain the exchange rate. In short, official reserves are detained for precautionary and transaction purposes. The basic objective to manage the currency to maintain the balance between supply and demand of foreign currencies.

Balance of Trade: Balance of Trade record all the transactions related to export and import and goods and services of a country with rest of the world. Until the early 1990s India's trade policy regime was highly complex. The tariff structure, high tariff rates Quotas and restrictions on import and export of goods.. India's share of world export fell to 0.5% in 1983.

2. REVIEW OF LITERATURE:

2.1 Pre – reforms scenario:

In 1964, Singh expressed dissatisfaction towards the India's external sector's performance and ill-fated import substitution policy. The import substitution policy was biased against global integration of Indian market. He suggested many reforms in the export sector but these were implemented later after economic crisis in 1991.

Joshi and Little (1994) mentioned that in 1985 various steps were taken for liberalization and de-licensing in several industries but fiscal deficit and macro imbalance in Indian economy wee the consequences of these steps. Cerra and Saxena (2000) stated that IMF structural adjustment program were came due to India was facing balance of payments crisis and low foreign exchange reserves. Desai (1999) noted that In India in 1991, many reforms were taken in the industrial, public, external and financial sector. Joshi and Little (1996) recommended that old model of India could bring disaster in the economy at that time balance of payment deficit was create an opportunity to lanced new model for development of economy of India

In the late 1980s, the government of India initiated the steps towards simplify the tariff structure, replacing quantitative restrictions with tariff barriers and reducing state control on the external and domestic industrial policy. Few other steps were taken towards these areas such. Das (2003) mentioned that many awaked steps were taken to dismantle the import licensing regime through reductions in the number of products listed under banned/restricted category. Ahluwalia (2002) stated that an urgent priority of the policy makers for the economic reforms was to reduce fiscal deficit because this was seen as the major root of Bop crisis in 1991.

Bhagwati (1993) and Panagariya (2008) mentioned that reforms during the 1990s improved performance of that period and growth of large enterprises viable due to ease of import licensing and new trade regimes. Kotwal et al (2011) remarked that tariffs remained high and rates of protection didn't fall during these reforms. Agarwal and Whalley (2013) discussed about the elimination of quantitative restrictions and licensing; Liberalisation of FDI and portfolio inflows.

2.2 Impact of Reforms: Bhagwati and Srinivasan (1993) articulated that the 1980's weak policy regime was the main cause of the crisis of 1991 rather than the external factors. Bhattacharya et al. (1996) studied the position of Indian trade sector in post 1991 period and found that there was a marginal change

in the position of trade sector.

Balance of trade: WTO (2001) mentioned that in India over the post-reform period the service sector has performed better than merchandise trade. Brahmbhatt et al. (1996) found that in 2000 India in term of its share in world exports of service ranked 22th. GOI (2003) found that the share of trade in India's GDP has been raised; the share of trade was 21.4 % in 2001-02 in comparison to 14.6% in 1990-91.

World Bank (1990) noted that during the post -1991 India's export performance improved due to trade liberalization but still Indian export performance lagged behind in comparison to other rapidly growing Asian countries. Prasad (1997) studied the impact of economic reforms on exports of India and found that during 1990-1991 to 1994-1995 India's exports achieved a higher growth rate as compared to growth rate of world exports. This growth due to growth in terms of quantity and not due to real increase in unit values showed that Indian exports were becoming more competitive in terms of prices. Matoo and stern (2003) reported that India's trade policy regime was extremely complex until the early 1990s. Balasubramanyam (2003) noted that custom duty rates fell down to 29% in 1995-96 while trade policy remains same. In 1990-91 highest tariff stood at 355 per cent, while additional condensed to 71 per cent in 1993/94 and to 41 per cent in 1995/96.

Foreign Exchange Reserve: Acharya (2008) remarked that stable current account balance after reforms led to enhancement in the foreign exchange reserves. In 2000-01 the foreign exchange reserves were US$ 42.28 billion but in 2007-08 increased to US$ 309.72 billion after that there was decline in 2009-10 to US$ 279.06.

3. OBJECTIVES AND RESEARCH METHODOLOGY :

The primary objective of this study is to find out how far economic reforms in the external scenario have brought changes in balance of trade and foreign exchange reserve. The study throws light on whether there is an improvement in external scenario or not. The study is descriptive in nature and based on secondary data collected from prowess database and journals and various website. Data has been analyzed on the basis of percentage and graphs.

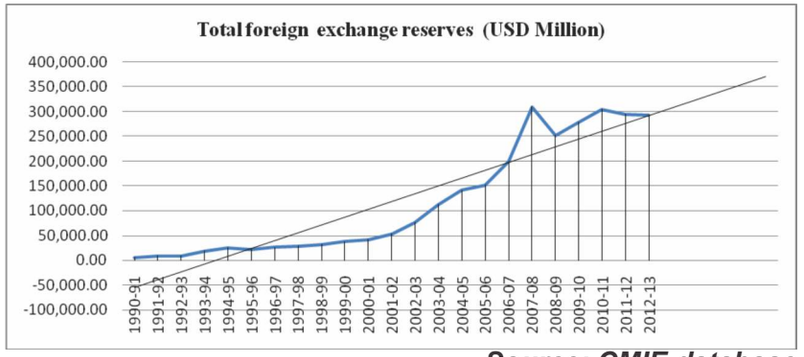
4. ANALYSIS AND INTERPRETATION:

Table 1: Foreign exchange Reserve in the post reform period

Year	Total foreign exchange reserves (USD million)
1990-91	5,834.00
1991-92	9,220.00
1992-93	9,832.00
1993-94	19,254.00
1994-95	25,186.00
1995-96	21,687.00
1996-97	26,423.00
1997-98	29,367.00
1998-99	32,490.00
1999-00	38,036.00
2000-01	42,281.00
2001-02	54,106.00
2002-03	76,100.00
2003-04	112,959.00
2004-05	141,514.00
2005-06	151,622.00
2006-07	199,179.00
2007-08	309,723.00
2008-09	251,985.00
2009-10	279,057.00
2010-11	304,818.00
2011-12	294,398.00
2012-13	292,646.50

Chart 1 predicts the total foreign exchange is increasing over the period. After economic reforms foreign exchange reserve was increasing gradually till 2000-01.But from 2001-02 it increased at increasing rate. It was at the highest point i.e. 3, 00,000 (approx) in 2007-08. After reforms in 1991, it increasing continuously but there was decline in 2008-09. In 2008-09 declined due to recession period in the economy. We had an array of foreign exchange reserve between 2, 50, 000-3, 00, 000 in the preceding years. By using linear trend analysis, we get a trend line with a period of 5 year : Y = 15731x - 70171. After 5 year the foreign exchange reserve in India will be more the 3, 50,000 USD million. Due to economic reforms foreign exchange reserve increased dramatically. More foreign companies came in India for investment because globalization welcomes MNC. More foreign currency come which lead to enhance foreign exchange reserve.

Chart 1: Foreign exchange Reserve in the post reform period

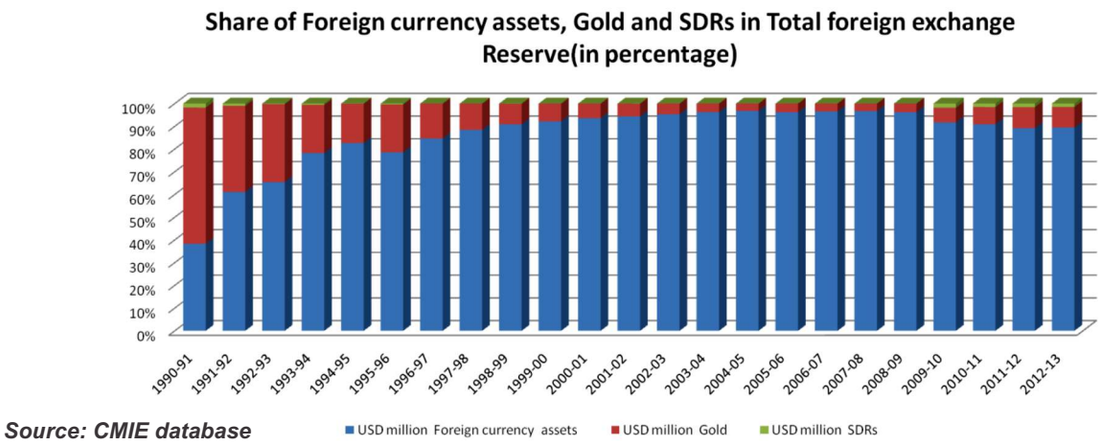


Source: CMIE database

Table no 2: Share of Foreign currency assets, Gold and SDRs in Total foreign exchange Reserve (in percentage)

Year	Foreign currency assets	Gold	SDRs
1990-91	-33.61	617.86	-4.67
1991-92	151.83	0.09	-11.76
1992-93	14.26	-3.4	-80
1993-94	134.19	20.65	500
1994-95	38.1	7.16	-93.52
1995-96	-18.09	4.37	1,071.43
1996-97	31.23	-11.12	-97.56
1997-98	16.13	-16.35	-50
1998-99	13.66	-12.71	700
1999-00	18.75	0.47	-50
2000-01	12.82	-8.37	-50
2001-02	29.06	11.82	400
2002-03	40.83	15.98	-60
2003-04	49.46	18.79	-50
2004-05	26.17	7.19	150
2005-06	7.03	27.89	-40
2006-07	32.26	17.88	-33.33
2007-08	55.91	47.98	800
2008-09	-19.32	-4.6	-94.44
2009-10	5.49	87.8	500,500.00
2010-11	7.71	27.72	-8.73
2011-12	-5.2	17.63	-2.19
2012-13	-0.13	-2.7	-3.16

Chart 2 : Share of Foreign currency assets, Gold and SDRs in Total foreign exchange Reserve (in percentage)



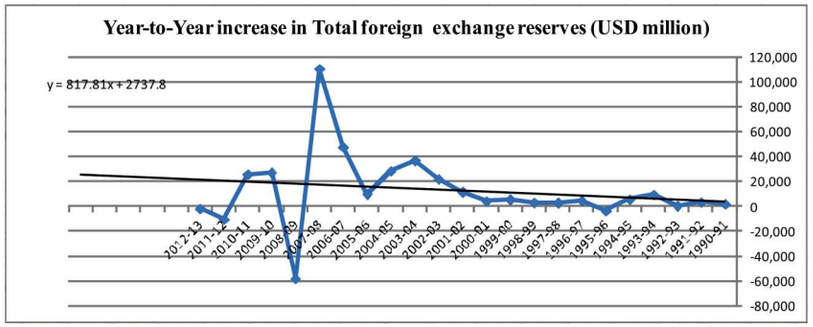
Source: CMIE database

Chart 2 predicts the composition of the foreign exchange reserve. Share of foreign currency assets is high in comparison to other elements like GOLD and SDRs in total foreign exchange reserve. In 1990-91 share of Gold was high but it declined over the years. From 2004-2009, the share of gold was very low in the total foreign exchange reserve. While Gold share increased after 2009-10 continuously. Share of foreign currency increased after economic reforms. In the early years it was increasing slowly but after 1996-97 it showed a drastic increased and had enormous share in total foreign exchange reserve (Chart 2).In total reserve foreign currency assets' share was high because more foreign investors invest their money in India due to economic reforms.

Table no 3. Comparison of year-to-year increase Total foreign exchange reserve

Year	Total foreign exchange reserves (USD million)
1990-91	1,872.00
1991-92	3,386.00
1992-93	612
1993-94	9,422.00
1994-95	5,932.00
1995-96	-3,499.00
1996-97	4,736.00
1997-98	2,944.00
1998-99	3,123.00
1999-00	5,546.00
2000-01	4,245.00
2001-02	11,825.00
2002-03	21,994.00
2003-04	36,859.00
2004-05	28,555.00
2005-06	10,108.00
2006-07	47,557.00
2007-08	110,544.00
2008-09	-57,738.00
2009-10	27,072.00
2010-11	25,761.00
2011-12	-10,420.00
2012-13	-1,751.50

Chart 3: Comparison of year-to-year increase Total foreign exchange reserve



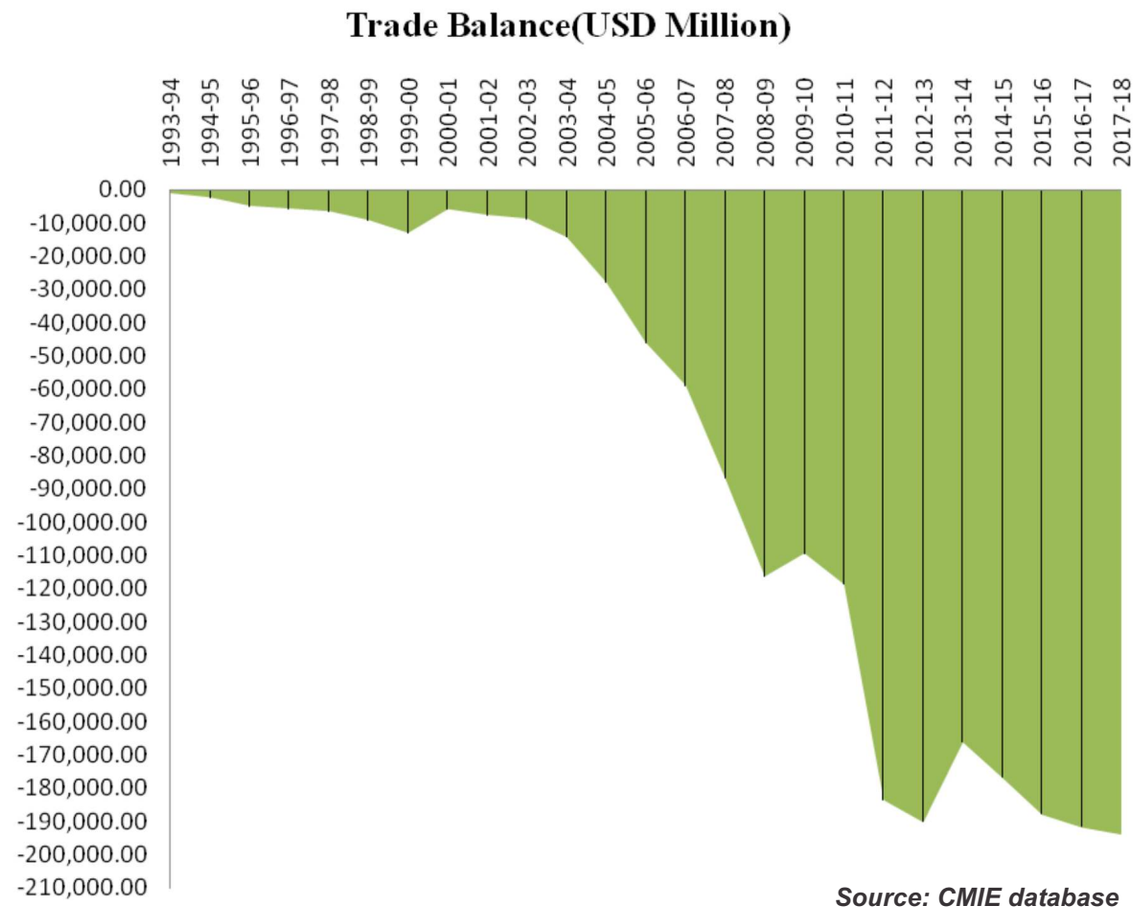
Source: CMIE database

Total foreign exchange reserve has been increased at low rate in the following years of economic reforms. It rose in 2003-04 but decline continuously in next two years. It can be noticed that in 2006-07 total foreign exchange reserve is around 1,20,000 USD million which is highest till now. But there was tremendous decline in 2007-08. In 2007-08 total foreign exchange reserve was negative 60,000 USD million, which shows that recession in that period effected foreign exchange reserve so much. In following year of 2007-08, it raised above 20,000 but again in 2011-12 it declined and total foreign exchange reserve was negative in that year (Chart 3).By using linear trend line, the linear equation for the period of 5 year is: $y = 817.8x + 2737$. There was fluctuation in the reserve because many other economic factors such as other countries economic position are also affecting the reserve.

Table no 4 Comparison and Forecasting of Trade balance in India (USD Millions)

Year	Trade Balance(USD Millions)
1993-94	-1,091.90
1994-95	-2,324.80
1995-96	-4,887.00
1996-97	-5,666.30
1997-98	-6,484.60
1998-99	-9,160.50
1999-00	-13,020.80
2000-01	-5,897.50
2001-02	-7,586.20
2002-03	-8,690.80
2003-04	-14,315.00
2004-05	-27,969.90
2005-06	-46,065.50
2006-07	-58,802.90
2007-08	-86,800.40
2008-09	-116,223.20
2009-10	-109,288.20
2010-11	-118,609.20
2011-12	-183,436.70
2012-13	-190,108.70
2013-14	-166,077.60
2014-15	-176,779.80
2015-16	-187,833.60
2016-17	-191,655.80
2017-18	-193,798.40

Chart 4: Comparison and Forecasting of Trade balance in India (USD Millions)



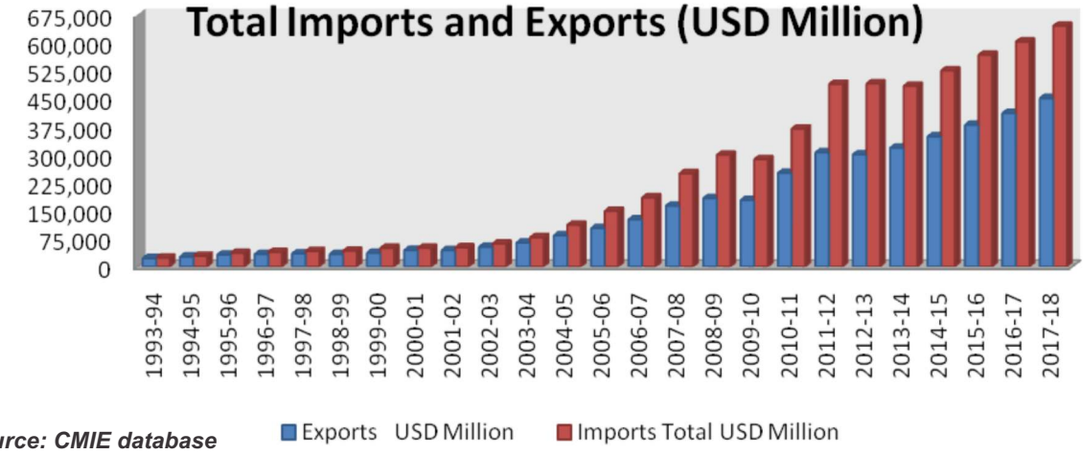
Source: CMIE database

There was always deficit balance of trade. It was rising continuously over the year. Till 2003-04, trade balance had deficit balance below 20,000. But after 2003-04 it was diminishing at increasing rate. Deficit balance of trade balance had risen continuously. In 2008-09 trade balance was -116,223.20 USD. It was -190,108.70 USD in 2012-13, which was highest deficit in last 20 years. In next 5 year, as per available data, trade balance will be around -190,000 USD (Chart 4.)In India imports are more than exports. Few items such as rise, spices etc were exports in comparison to more items were exports. The reason behind this are in India import promotion policy, quota and tariffs were removed while for exporting many restrictions are still in other countries which lead to deficit trade balance.

Table no 5 Total Imports and Exports in India (USD Million)

Year	Exports	Imports
1993-94	22,213.30	23,305.20
1994-95	26,338.60	28,663.40
1995-96	31,834.50	36,721.50
1996-97	33,491.20	39,157.50
1997-98	35,041.60	41,526.20
1998-99	33,183.10	42,343.60
1999-00	36,708.00	49,728.80
2000-01	44,063.00	49,960.50
2001-02	43,824.40	51,410.60
2002-03	52,708.00	61,398.80
2003-04	63,880.40	78,195.40
2004-05	83,501.40	111,471.30
2005-06	103,068.90	149,134.40
2006-07	126,271.90	185,074.80
2007-08	162,982.70	249,783.10
2008-09	183,096.80	299,320.00
2009-10	178,322.10	287,610.20
2010-11	250,786.00	369,395.20
2011-12	305,752.80	489,189.50
2012-13	300,208.30	490,317.00
2013-14	318,127.80	484,205.50
2014-15	348,562.20	525,342.00
2015-16	379,523.20	567,356.80
2016-17	411,071.00	602,726.80
2017-18	451,240.80	645,039.20

Chart 5: Total Imports and Exports in India (USD Million)



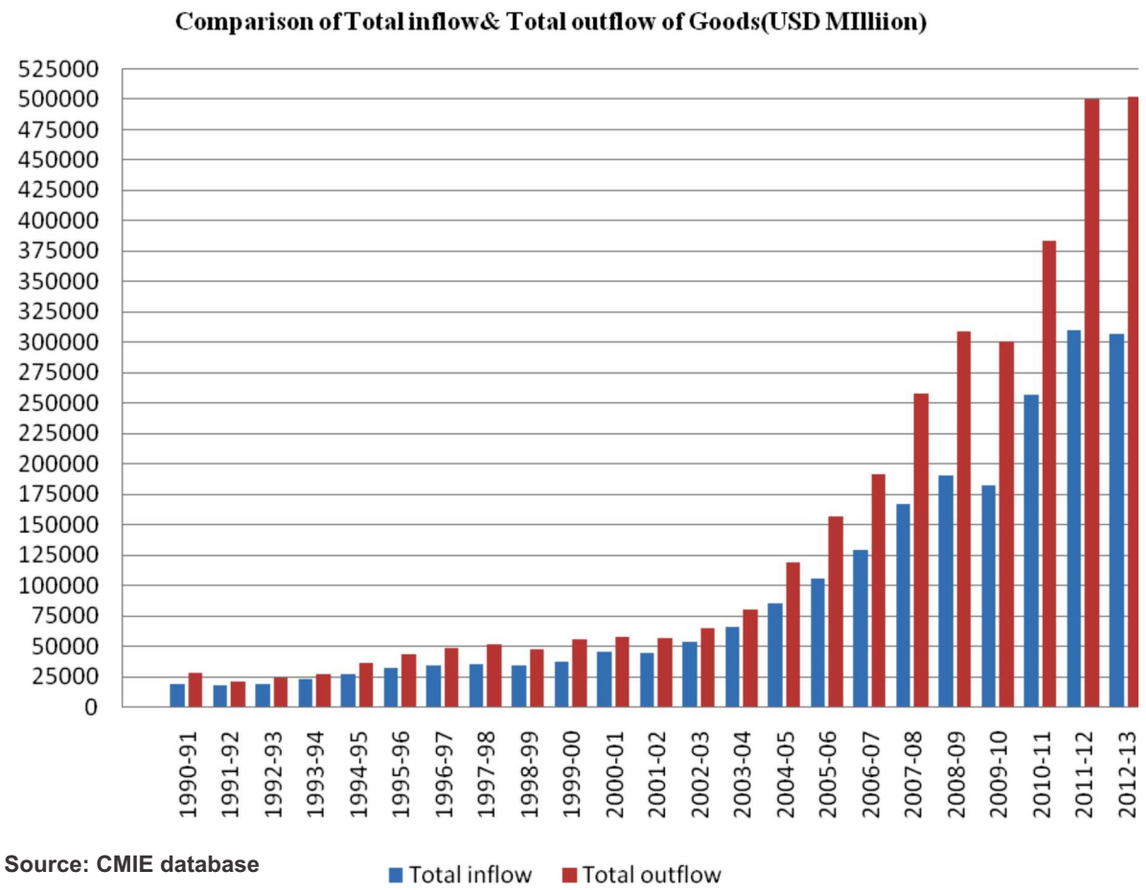
Source: CMIE database

After having a look at chart 5, it becomes quite clear that total imports in India increased continuously over year. As far as total exports are concerned there had been continuous increasing trend over years. As it is clear from the Chart 5 imports are more than the exports. After the economic reforms import was enhancing. Till 2017-18, Import will be around 650,000 (USD Million) and export will be around 450,000 (USD Million). In future, Import and export in India will increase but balance of trade will be disequilibrium as it shows in current situation. Indian government removes many tariffs and quotas for increasing the imports which can be seen in the figure that imports are increasing continuously.

Table no 6. Comparison of Total inflow &outflow of Goods (USDMillion)

Year	Exports	Imports
1990-91	18,477.00	27,915.00
1991-92	18,266.00	21,064.00
1992-93	18,869.00	24,316.00
1993-94	22,683.00	26,739.00
1994-95	26,855.00	35,904.00
1995-96	32,311.00	43,670.00
1996-97	34,133.00	48,948.00
1997-98	35,680.00	51,187.00
1998-99	34,298.00	47,544.00
1999-00	37,542.00	55,383.00
2000-01	45,452.00	57,912.00
2001-02	44,703.00	56,277.00
2002-03	53,774.00	64,464.00
2003-04	66,285.00	80,003.00
2004-05	85,484.00	119,143.00
2005-06	105,541.00	157,179.00
2006-07	129,127.00	190,965.00
2007-08	166,579.00	258,346.00
2008-09	190,213.00	309,255.00
2009-10	182,262.00	300,644.00
2010-11	256,318.00	383,481.00
2011-12	309,843.00	499,533.00
2012-13	306,581.40	502,236.90

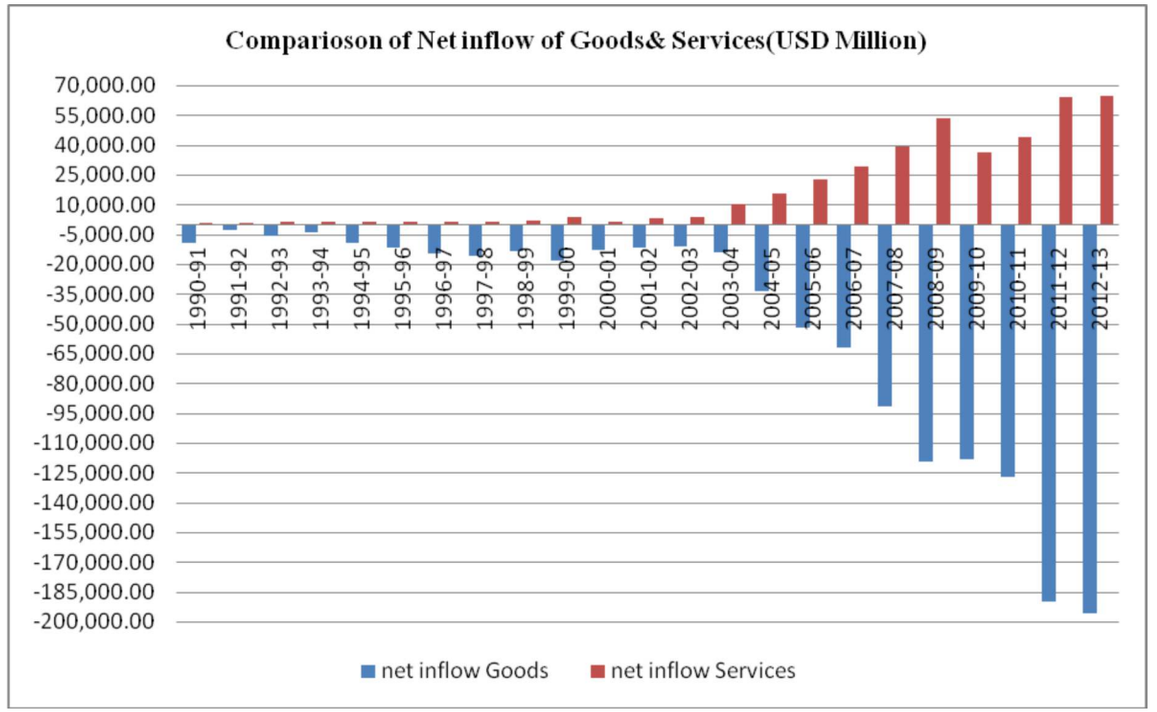
Chart 6: Comparison of Total inflow &outflow of Goods (USDMillion)



Source: CMIE database

Inflow and outflow of goods are explained in chart 6, which illustrated in the early stage of reforms the outflow and inflow was low . After period 2003-04 outflow boosted in comparison to inflow. The outflow enhance in 2011-13 surprised the economy in comparison to 2010. Outflow of goods are more than inflow of goods because all import and export barriers were removed. Goods manufactured are less costly and cheaper than foreign goods that's why goods are more exported.

Chart 7: Comparison of Net inflow of Goods & Services (USDMillion)



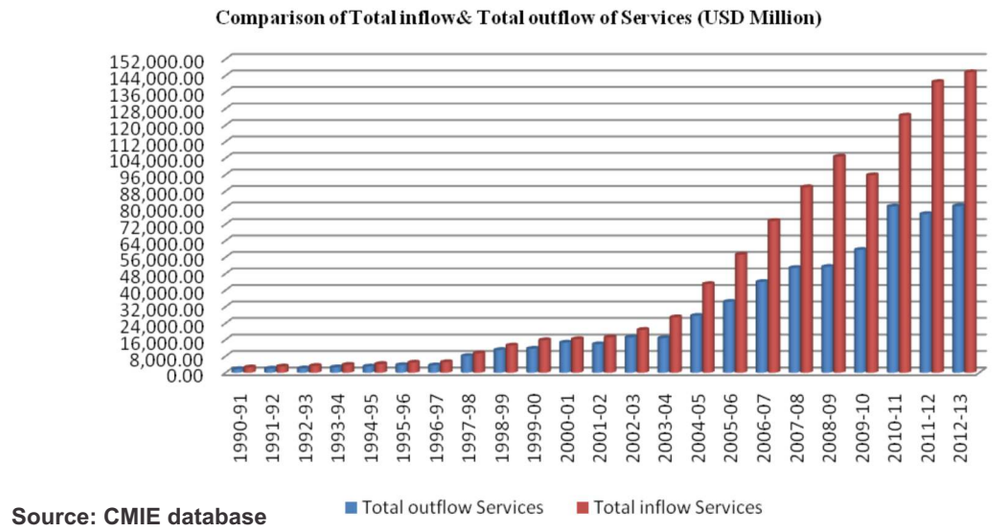
Source: CMIE database

Inflow of Goods and services showed in chart 7, which clarified that inflow of goods were negative while inflow of services were positive. After the period 2003 inflow of services improved significanly.In 2008-09 inflow of services was high in comparison to preceding and following year. In 2011-13 inflow of goods and services was very low i.e. negative.In comparison of both, inflow of goods were increaing than outflow of inflow of services

Table no 8 Comparison of Total inflow & outflow of services (USDMillion)

Year	Total outflow Services	Total inflow Services
1990-91	1,746.00	2,565.00
1991-92	1,999.00	3,041.00
1992-93	2,116.00	3,313.00
1993-94	2,610.00	3,809.00
1994-95	3,027.00	4,223.00
1995-96	3,697.00	4,916.00
1996-97	3,583.00	5,120.00
1997-98	8,110.00	9,429.00
1998-99	11,021.00	13,186.00
1999-00	11,646.00	15,763.00
2000-01	14,576.00	16,268.00
2001-02	13,816.00	17,140.00
2002-03	17,120.00	20,763.00
2003-04	16,724.00	26,868.00
2004-05	27,588.00	42,971.00
2005-06	34,366.00	57,270.00
2006-07	44,016.00	73,542.00
2007-08	50,774.00	89,926.00
2008-09	51,310.00	104,751.00
2009-10	59,534.00	95,728.00
2010-11	80,555.00	124,635.00
2011-12	76,906.00	140,935.00
2012-13	80,762.90	145,677.50

Chart 8: Comparison of Total inflow & outflow of services (USDMillion)



Source: CMIE database

Inflow and outflow of services predicted in chart 8 which demonstrated that inflow of services was high than the outflow. In the early period of reforms the flwo was low but after the ten years of reforms flow enhanced . After 2004-05 , the gap between the inflow and outflow of services gradually broaden. Inflow of services are more than outflow of services. Economic reforms liberalised as well as promote the privatisation which welcomes more foreign companies for providing services.Many KPO's and BPO's were come after reforms which give more services to the India.

5. CONCLUSION AND RECOMMENDATION:

Total foreign exchange is increasing over the period, during the recession there was decline but it increased after that period. Share of foreign currency assets is high in comparison to other elements like GOLD and SDRs in total foreign exchange reserve. While Gold share increased after 2009-10 continuously. Share of foreign currency increased after economic reforms.

There was always deficit balance of trade. It was rising continuously over the year. In 2012-13, this was highest deficit in last 20 years. In next 5 year, as per available data, trade balance will be around -190,000 USD. Total imports and export in India increased continuously over period. In future, Import and export in India will increase but balance of trade will be disequilibrium as it shows in current situation. Inflow of goods were negative while inflow of services were positive. In 2011-13 inflow of goods and services was very low i.e. negative.

Due to economic reforms liberalisation,privatisation and globalisation were lauunched which attract more foreign investors to india for providing services and trade. Which lead to enhance foreign exchange reserve and provide more emplyment opportunities. For reducing trade deficit government of india need to promote more export promotion policy and need to remove all barrers of trade so that trade deficit can be low.

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WORKING CAPITAL AND PROFITABILITY TRADE-OFF IN FMCG INDUSTRY: A STUDY OF SELECTED COMPANIES

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Abstract :

Purpose: The paper seeks to empirically investigate the flow of working capital management in the companies. It also examines the impact of working capital management on profitability.

Design/Methodology/Approach: The analysis is based on 6 companies of FMCG industry (as per BSEFMCG Index) in India. In this respect the data is collected for a period of 13 years, i.e. 2001-02 to 2013-14 from CMIE database. Descriptive statistics, Karl Pearson correlation, regression analysis and ANOVA have been used.

Findings: It was found that the selected companies in FMCG industry manage their working capital efficiently and maintain cash flow in the business. The companies have good credit worthiness among suppliers as they are provided with sufficient payment time. Further, it was found that there exists a significant negative relationship between key performance indicators for working capital management and profitability.

Implication: The findings suggest that the managers need to maintain a continuous watch on managing the financial flows of funds in order to optimize the working capital. The optimum working capital management will help the managers to increase credit worthiness and better relationship with suppliers and lenders.

Originality/Value: The paper addresses gap in the literature relating to working capital management of Indian FMCG companies.

Keywords : Operating cycle, Working Capital, Profitability, liquidity, firm value, FMCG companies.

INTRODUCTION :

An operational firm involves continuous in and out of funds in the business. A firm deploys its fund in two forms of capital: Fixed Capital and Working Capital. Fixed Capital is generally funds used for long-term purpose and are termed as fixed assets covering land, building, plant and machinery, vehicles, equipment, etc. These are retained in the business to earn profits and are exposed off when become obsolete. Working Capital, on the other hand is a circulating capital that supports the day-to-day operations of the business. Working capital is of two types: Gross working capital, which is maintained

in form of current assets. Current assets covering assets like cash balance, bank balance, debtors, inventories of raw material, work-in-progress and finished stocks, etc. Secondly, net working capital, which is the excess of current assets over current liabilities (creditors, bill payable, bank overdraft, etc.). The current assets are liquidated within a short period of time during the operating cycle of the industry and normally not exceeding one year.

Though an operational and successful business requires both the capital for its smooth running, yet working capital nowadays is receiving serious attention from the managers of small as well as large scale business concern. The reason for this is that half of the capital of the concern, especially manufacturing concern is used as working capital. It is essential for every firm to maintain optimum working capital in the business in order to maximize their value.

WORKING CAPITAL MANAGEMENT

Many researchers and academicians have given evidence that to maximize the value of the firm; working capital plays a significant role in the firm. It becomes noteworthy that the objective of the managerial staff should be to manage its working capital well throughout the life of the firm. Working capital management involves managing the movement of the cash flows in the business as well as the current assets and liabilities throughout the year. The manager tries to maintain an optimum level of working capital so that firm does not suffer from shortage or excess deployment of funds and liquidity is maintained.

WORKING CAPITAL MANAGEMENT AND PROFITABILITY:

Working capital and profitability are at the two extremes for a corporate manager. Although, the primary goal of the corporation is to maximize profitability yet, working capital today also requires serious attention by present day's managers of every business concern. The managers of the companies need to formulate policies to have a trade-off between working capital and profitability. It means they must preserve readily available cash resources in the firm for conducting day-to-day operations of company without affecting profit earned. The efficiency of the manager to carry day-to-day business without affecting the profits is measured by the operating cycle. Working capital management is concerned with balancing between adequacy and inadequacy of the funds. An important decision of optimum working capital, i.e. to decide a trade-off between profit and working capital forms a basis for success of companies.

Since working capital and profitability are two major concerns for every business, the present study examines the efficiency of the firm's manager to manage the flow of working capital and the cause and effect relationship between working capital and profitability in the Indian FMCG industry.

LITERATURE REVIEW:

There are various research work related to the financial supply chain management and its impact on profitability. Some of the most relevant studies are reviewed below:

Chellasamy and Sumathi (2009) underlined the factors influencing profitability of the selected textile companies in Coimbatore District from 1995-96 to 2005-06. The study found that working capital was the only factor that highly influenced the valuation of companies' profitability. It is suggested that besides working capital, the companies must also consider other influencing factors like short-term liquidity, turnover, long-term solvency, etc. while measuring the profitability of companies. Biger et al (2010)

examined the relationship between working capital management and profitability of 88 American firms listed on the New York Stock Exchange for a period of 3 years from 2005 to 2007. The result disclosed a significant relationship between the cash conversion cycle and profitability. It was concluded that managers must create profits for their companies by handling correctly the cash conversion cycle and by keeping accounts receivables at an optimal level. Elham et al. (2012) aimed to study the effect of working capital management over the performance of 15 firms listed on the Tehran Stock exchange (TSE) during 2006 to 2009. The study found that there existed a significant negative relationship between working capital management and performance of selected firms. It was also found that there was an increase in collection period, payment period and net trading which lead to decrease in profitability of the firms. Kumar and Saluja (2012) evaluated the liquidity and profitability trade-off in Bharti Airtel Limited for a period of five years from 2005-06 to 2009-10. The findings disclosed that the profitability and liquidity of Bharti Airtel Ltd. had negative correlation with each other. It was suggested that for the continuous growth of any firm, there must be equilibrium between profitability and Liquidity. Bamal (2013) examined the relationship between working capital and profitability by comparing chemical industry and the pharmaceutical industry for 10 years from 2002 to 2011.The results depicted a significant relationship between working capital and profitability. Further, it was found that a major impact of working capital variables was on the profitability of chemical industry than those of the pharmaceutical industry. Bagchi and Khamrui (2014) made an attempt to investigate the effects of working capital management on profitability of Indian central public sector enterprises (CPSEs) for the ten year period from 2001-02 to 2010-11. The results demonstrated a negative relationship between firm's profitability and working capital management.

OBJECTIVES:

1. To empirically investigate the flow of working capital in the selected companies.
2. To examine the relationship of working capital management and profitability of selected companies.

HYPOTHESIS:

Based on the findings of the literature reviewed, following hypotheses are formulated:
H01: There is no difference in the working capital management of selected companies.
H02: There exists no significant relationship between net working capital cycle and ROA.

SAMPLE SELECTION:

The analysis is based 6 FMCG companies selected from the BSEFMCG Index of Bombay Stock Exchange of India. There are 12 companies belonging to the FMCG industry in the BSEFMCG Index of Bombay Stock Exchange of India. The selection is based on the availability of data and covers 50% of the companies in the BSEFMCG Index of Bombay Stock Exchange of India

DATA COLLECTION SOURCES:

The present study entitled “WORKING CAPITAL AND PROFITABILITY TRADE-OFF IN FMCG INDUSTRY: A STUDY ON SELECTED COMPANIES” is based on secondary data collected from annual reports of the selected FMCG companies, prowess database of CMIE, journals, magazines, website of the National Stock exchange and Bombay Stock Exchange of India and other related papers. The data is collected for 13 years commencing from FY2001-02 to FY2013-14.

VARIABLES:

The purpose is to examine the flow of working capital in selected FMCG companies in India. Since the operating cycle is one of the measures for working capital management, following variables viz. Gross working capital cycle, net working capital cycle, days of sales outstanding (Debtor), days of purchases outstanding (Creditor), days of inventory outstanding (Raw material cycle, work-in-progress cycle and finished good cycle) are selected. The net working capital cycle as the independent variable return on assets (ROA) as dependent variables are taken to study the relationship of working capital management and profitability.

Tools used: Descriptive statistics- Average, Standard Deviation, Coefficient of variation, Minima and Maxima. Correlation, Regression and ANOVA are used to examine the relationship of working capital management and profitability.

FINDINGS:

1. Findings related to flow of Working Capital based on descriptive statistics: The analysis presented the following results:

1. The raw material cycle depicts number of days the raw material outstanding in the business which should be low. More time length of raw material cycle signifies idle inventory and remained unsold. As per the table 1, ITC Ltd. has a more time length of raw material cycle of 177 days approx. and Colgate-Palmolive India Ltd. have a less time length of 22 days approx.
2. The Work-in-progress cycle depicts number of days the work-in-progress outstanding in the business which should be low. More time length in a work-in-progress cycle signifies huge inventory remained utilized and unsold. As per the table 1, Dabur India Ltd. have more time length in a work-in-progress cycle of 19 days approx. and Colgate-Palmolive India Ltd. have a less time length of 3 days approx.
3. The finished good cycle depicts number of days the finished good outstanding in the business which should be low. More time length in finished good cycle indicates huge inventory and lesser sales. As per the table 1, ITC Ltd. have more time length in finished good cycle of 53 days approx. and Marico Ltd. has less time length of 25 days approx.
4. The Debtors cycle depicts the days outstanding for the sale of goods which should be low. More time length of debtors' cycle depicts ample time is given to the customer for making payment of goods sold to them. As per the table 1, Dabur India Ltd. has more time length in debtor cycle of 21 days approx. and Nestle India Ltd. has less time length of 5 days approx.
5. The gross working capital cycle depicts number of days the gross working capital outstanding in the business which should be low. More time length of gross working capital cycle means huge inventory or/and days outstanding of sales. As per the table 1, ITC Ltd. has a more time length of gross working capital cycle of 245 days approx. and Colgate-Palmolive India Ltd. has less time length of 62 days approx.
6. The creditor's cycle depicts the days outstanding for the purchases made from suppliers which should be high. More time length of creditors' cycle implies abundant time is provided by suppliers for making payment and good credit worthiness of the buyer. As per the table 1, Hindustan Unilever Ltd. have more time length of raw material cycle of 95 days approx. and Marico Ltd. has less time length of 44 days approx.
7. The net working capital cycle depicts number of days the net working capital outstanding in the business which should be low. More time length in net working capital cycle symbolizes huge sold and unsold inventory, lesser sales and less time for making payment to suppliers. As per the table 1, ITC Ltd. had more time length in net working capital cycle of 182 days approx. and Colgate-Palmolive India Ltd. have a less time length of -21 days approx.
8. The study disclosed that ITC Ltd. has larger cycle, i.e. capital is tied up in the business for more time, whereas Colgate-Palmolive India Ltd. have negative net working capital cycle i.e. buyer doesn't make payment to suppliers until it receives payment from customers. This symbolizes the credit worthiness of the buyers towards suppliers.
9. The analysis further showed that there is hardly any variation in the components of the working capital cycle as the coefficient of variation (C.V.) is below 50% for majority of selected companies. The results concluded that there existed a significant difference in the financial flows in the supply chain of the selected companies.

2. Findings related to the relationship between Working capital management and profitability based on correlation, regression and F-test :

The analysis presented the following results based on correlation, regression and F-test:

1. For Colgate-Palmolive India Ltd., the correlation value is -0.90 and R square value is 0.82. The results showed that with a 1 % change in the net working capital cycle, there are 52% change in the profitability. There is a significant negative relationship between net working capital cycle and return on assets (ROA).
2. For Dabur India Ltd., the correlation value is -0.88 and R square value is 0.78. The results showed that with a 1 % change in the net working capital cycle, there is a 14 % change in the profitability. There is a significant negative relationship between net working capital cycle and return on assets (ROA).
3. For Hindustan Unilever Ltd., the correlation value is -0.69 and R square value is 0.47. The results showed that with a 1 % change in the net working capital cycle, there is a 26 % change in the profitability. There is a significant negative relationship between net working capital cycle and return on assets (ROA).
4. For ITC Ltd., the correlation value is -0.16 and R square value is 0.02. The results showed that with a 1 % change in the net working capital cycle, there is a 1 % change in the profitability. There is an insignificant negative relationship between net working capital cycle and return on assets (ROA).
5. For Marico Ltd., the correlation value is -0.29 and R square value is 0.08. The results showed that with a 1 % change in the net working capital cycle, there is a 3 % change in the profitability. There is an insignificant negative relationship between net working capital cycle and return on assets (ROA).
6. For Nestle India Ltd., the correlation value is 0.20 and R square value is 0.04. The results showed that with a 1 % change in the net working capital cycle, there is a 9 % change in the profitability. There is a negative relationship between net working capital cycle and return on assets (ROA) but this relation is insignificant.

CONCLUSION:

The analysis made it clear that working capital requires serious attention by the present day's managers of every business concern. A firm needs to maintain a trade-off between working capital and profitability. An optimum working capital need to be decided during the year to avoid the problem of shortage and excess of funds and to maximize their value. It was found that the selected companies in FMCG industry manage their working capital efficiently and maintain continuous flow of funds in the business. The analysis disclosed that selected FMCG companies had a significant difference in the flow of working capital. Further, ITC Ltd. has larger time length, i.e. funds were tied up in the business for long hampering its profitability. On the other hand, Colgate-Palmolive India Ltd. having negative net working capital cycle proved that the buyer doesn't make payment to suppliers until it receives payment from customers. This signifies the credit worthiness of buyers towards suppliers. Correlation and regression results demonstrated a significant negative relationship between indicators of working capital management and profitability for only Colgate-Palmolive India Ltd, Dabur Ltd. and HUL. To conclude, the managers had suggested that they need to focus of the operating cycle of the companies and should make efforts to reduce the net working capital cycle in order to maximize the profit.

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Annexure :

Table 1

Descriptive statistics

Table No 1. Comparison of Total inflow &outflow of Goods (USDMillion)

	Measurement	Raw material cycle	WIP cycle	Finished goods cycle	Debtors	Creditors	Gross working capital cycle	Net working capital cycle
Colgate-Palmolive India Ltd.	Average	22.15	2.69	29.08	7.93	82.55	61.84	-20.71
	Standard Deviation	6.31	0.84	3.75	5.36	7.06	13.60	15.71
	C.V.	28.51	31.43	12.90	67.56	8.55	21.99	-75.85
	Minima	13.48	1.89	23.06	1.83	71.78	40.84	-50.32
	Maxima	32.84	4.64	35.51	19.31	93.07	86.75	11.49
Dabur India Ltd.	Average	56.31	19.20	30.37	21.28	60.97	127.16	66.19
	Standard Deviation	19.45	6.86	7.80	7.05	6.13	36.53	40.42
	C.V.	34.54	35.75	25.69	33.13	10.05	28.73	61.07
	Minima	36.55	6.28	21.69	10.49	40.17	81.37	18.71
	Maxima	99.58	27.89	48.65	40.31	69.75	198.31	150.62
Hindustan Unilever Ltd.	Average	54.35	5.98	31.98	14.92	95.37	107.23	11.86
	Standard Deviation	11.28	3.53	3.53	3.10	8.88	14.55	13.16
	C.V.	20.75	59.14	11.04	20.80	9.31	13.57	110.98
	Minima	34.06	2.05	27.62	10.33	74.99	81.71	-12.59
	Maxima	69.97	12.13	36.80	20.42	109.78	130.01	35.49
ITC Ltd.	Average	177.96	3.03	52.81	11.46	63.51	245.26	181.76
	Standard Deviation	18.30	1.40	6.05	1.43	12.70	20.96	27.49
	C.V.	10.28	46.16	11.46	12.52	19.99	8.55	15.12
	Minima	150.88	1.33	44.40	8.45	52.02	218.23	126.57
	Maxima	202.02	5.93	64.71	13.41	91.66	281.44	226.87
Marico Ltd.	Average	45.75	14.67	25.23	14.77	43.93	100.41	56.48
	Standard Deviation	10.90	6.95	6.38	2.39	10.41	22.97	26.67
	C.V.	23.82	47.36	25.29	16.18	23.70	22.87	47.22
	Minima	32.84	7.01	17.29	10.62	34.94	75.64	20.66
	Maxima	61.23	28.52	36.57	20.45	65.02	137.02	92.57
Nestle India Ltd.	Average	29.17	8.14	26.82	4.93	48.15	69.06	20.91
	Standard Deviation	2.61	2.40	2.66	0.72	2.37	7.45	8.97
	C.V.	8.95	29.42	9.93	14.67	4.93	10.79	42.90
	Minima	25.47	5.15	22.76	3.63	44.02	59.01	9.08
	Maxima	37.11	13.33	31.71	6.30	51.92	87.77	43.75

MAJOR CONSTRAINTS ENCOUNTERED BY STUDENTS OF RURAL BACKGROUND WITH EMPHASIS ON LANGUAGE

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India has been given allot of labels in the recent times, they being the future leader, global world power, emerging nation to name a few. A major contributing factor for these conclusions is the significant bulge in its age pyramid. Demographics in India depict every third person to be a youth. By 2020, the median age group in India will be 29 years, that too most probably an urban inhabitant, making India the youngest nation of the World. India is set to experience a dynamic transformation as the population burden of the past turns into a demographic dividend, but the benefits will be tempered with social and spatial inequalities. Education being one, a huge difference in the urban and rural educational prospective exists and is evident from the quality of students being produced by them. To dwell upon the constraints in the smooth transition of a rural undergraduate to an urban graduate, study was conducted using a non-disguised well structured questionnaire having either dichotomous or multiple choice type answers. Random sample of 150 students was taken from a leading private university enrolled in different courses hailing from both urban and rural areas. Averages, percentiles and statistical methods were used to draw conclusions.

Key words: Rural education

1.1 INTRODUCTION

The segregation of the Indian nationals on basis of their domicile shows that the majority will feature in the rural category. In India, a large proportion of the population is from rural background. According to 2011 census from total population of 121 hundred million, 83.3% is rural. As the future of any country depends upon its youth, it is of utmost importance to cater to all needs related to it. Education along with health is a major deciding factor for a prosperous future of the youth and hence the country. But the youth from rural background are facing number of difficulties when they move to urban areas for higher education. The area of concern is the language which is widely used everywhere i.e. English. The undergraduates from rural background find it difficult when they enter a college where the medium of lecture delivery is entirely English therefore making it extremely difficult for them to completely comprehend the same which reduces their efficiency to learning.

Even though the number of rural students attending schools is rising, but more than half of the students in fifth grade are unable to read a second grade text book and are not able to solve simple mathematical problems. Not only this, the level of mathematic aptitude and language reading ability is gravely compromised. Though efforts are being made, they are not in the right direction. The reason cited for this

problem in surveys is the increasing number of single classroom to educate students from more than one grade. In some states attendance of teachers and students is also declining. These are a few reasons why schools have failed to educate the rural India. Quality and access to education is the major concern in rural schools as there are fewer committed teachers, lack of proper text books and learning material in the schools. Though Government schools exist, but are not functional in the right context. There mere presence is not a befitting solution to an already amplified problem of educated but unskilled younger generation.

Some government schools in rural India are overly packed with students, leading to a distorted teacher-student ratio. In one such remote village in Arunachal Pradesh there are more than 300 students in class X, which makes nearly 100 students in each classroom. In such a situation it is impossible for teachers to pay full attention towards each and every student, even if they are willing to help.

There is a difference between city and village student not in terms of information comprehension or intelligent quotient but are at variance from each other in terms of their initial environment, skills, availability of infrastructure, and access to different facilities. All of these must be considered while determining the curriculum for such students. Also there might not be allot of difference in the content but special consideration is to be taken while formulating the mode of delivery for the same. Hence we can state that curriculum might not make much of the difference but how it is going to be taught. Emphasis should be laid on encouraging the genuine rural students who are interested in education and make them skillful.

The problem arises because in rural areas in most of states of India English is added as a subject in fifth grade or afterwards. The level of rural education is very low in India some of the reasons being:

- The infrastructure of rural education is not effective.
- The number of absentees is also very high.
- Less number of teachers as compared to that of students. If there will be lesser number of teacher then they can devote less time to each student on the other hand if there will be appropriate student teacher ratio then the quality of education can be higher.
- The language used in the rural schools is the local language

So when a student who started studying English in middle school, will not be so much familiar with the language as the one who is studying it from the very beginning. But students from rural background find it as a major constraint when they are undergoing their graduation.

There are broadly four stages of school education in India: namely, primary, upper primary, secondary education (SE), and higher secondary education (HSE). The combination of primary and upper primary schooling is termed elementary education.

Sarva Shiksha Abhiyan (SSA), is an Indian Government program aimed at the making elementary education available to all "in a time bound manner", as mandated by the 86th amendment to the Constitution of India making free and compulsory education to children of ages 6–14 (estimated to be 205 million in number in 2001) a fundamental right. The program was pioneered by Atal Bihari Vajpayee.

As an intervention program, SSA has been operational since 2000-2001.However, its roots go back to 1993-1994, when the District Primary Education Program (DPEP) was launched, with the aim of achieving the objective of universal primary education. DPEP, over several phases, covered 272 districts in 18 states of the country. The expenditure on the program was shared by the Central Government (85%) and the State Governments. The Central share was funded by a number of external agencies, including the World Bank, DFID and UNICEF. By 2001, more than US$1500 million had been committed to the program, and 50 million children covered in its ambit. In an impact assessment of Phase I of DPEP, it was concluded that its net impact on minority children was impressive, while there was little evidence of any impact on the enrollment of girls. Nevertheless, they concluded that the investment in DPEP was not a waste, because it introduced a new approach to primary school interventions in India.

The Right to Education Act (RTE) came into force on 1 April 2010. Some educationists and policy makers believe that, with the passing of this act, SSA has acquired the necessary legal force for its implementation.

Padhe Bharat Badhe Bharat is a nationwide sub-program of Sarva Shiksha Abhiyan. Children who fail to read in early education lag behind in other subjects. The program is designed to improve comprehensive early reading, writing and early mathematics program for children in Classes I and II. Under this program, Rs. 762 crore was approved to States. The program will not only provide print rich environment, timely distribution of books but will also include new teacher mentoring and appraisal system

In June 2011, **Grameen Koota** piloted 18 education centers in rural Karnataka (near Bangalore), India with learning programs for pre-school, primary and high school children. Grameen Koota's field staff worked tirelessly to identify villages with low access to quality affordable education, adequate households to meet enrolment targets, and cultural acceptance for children from different backgrounds to study together. Within the first month and a half, over 600 children enrolled across the three programs in 18 centers.

However, several challenges such as competition with government Anganwadi programs, low-availability of quality teachers, and timing of center rollouts led the team to fall short of enrollment targets by 50%. The centers are expected to achieve operational breakeven within the second year, and breakeven of subsequent centers should be achieved within a shorter timeframe.

District Institute of Education and Training, program have been established as centre of guidance for educational institutes and schools of a district. It also works as a platform for research and experimental work in educational domain. It also organizes programs to train teachers for new innovations.

Ashirwad scheme by the Punjab government is aimed to give financial aid to students belonging to economical weaker section of the society. Student pays only a nominal part of the prescribed fee of the admitting institute, the rest being furnished by the state government. Thousands of students have availed this opportunity to pursue their higher studies.

2.1 REVIEW OF LITERATURE

Pritchett Lant in his report State of affairs has presented trajectory of a young girl or a boy who has just enrolled into school. He stated in his study that in any year of schooling,3 out of 4 children who cannot read and write will not learn to do so. He also stated that the children who enter the fourth grade not knowing how to read, 81% will not gain literacy that year. He gave the fraction of students who didn't learn in the year to read and write.

Rawal vikas in his research notes 'Statistics on elementary school education in India' gave emphasis on the infrastructure of the schools in rural areas. He studied that about 57 per cent of rural elementary (primary and upper primary) schools in India had less than four classrooms. The proportion of rural schools that do not have one classroom per grade is substantially higher. Rural elementary schools in India which did not have drinking water facilities are 13%. About 16 per cent of rural elementary schools in India did not have any toilet facilities. About 49 per cent of rural elementary schools in India did not have separate toilets for girls. About 70 per cent of rural elementary schools in India did not have electricity. About 14 per cent of all rural primary schools in India had only one teacher. He concluded that one of the great failure of development policy in post- independence India has been the inability to ensure that all children attend school.

Ward Michael in his Article 'Rural Education' gave overview of Education system in India he gave information about progress in education , progress in elementary education and literacy , progress in post elementary education . He also studied infrastructure need for providing effective rural education which includes teacher, non-consumable material, consumable material school building including water facilities, latrines and school furniture.

3.1 OBJECTIVES

I. To determine major constraints encountered by students of rural background as they enroll in graduate courses;

II. To determine if language is a constraint to understanding, for rural undergraduates in graduation courses;

III. To determine the perceptions and preferences of rural undergraduates towards classroom teaching;

IV. To evaluate grammatical aptitude of the respondents.

4.1 RESEARCH METHODOLOGY

Research Methodology is the system of methods followed by particular discipline. Thus, research methodology is the way how we conduct our research.

4.2 Study design

The study is a descriptive, cross-sectional survey. A closed ended structured questionnaire was used for the survey. The options for the questions were either dichotomous or multiple choice type

4.3 Sample size and sampling method

Sample - All the items under consideration in any field of inquiry constitute a universe or population. As it is not possible to study all the items in a population so quite often we select a few from the universe for our study purposes. The items so selected constitute what is technically called a sample.

As the research frame in the said study had a population size of sixteen thousand hence sample of 150 was taken based on the sample size of similar research endeavors.

Random sampling is done where every one hundred seventh individual is taken based on their listing according to their unique identification number. Equal numbers of students were included in the sample from different disciplines of a leading private university in Punjab being Bachelors of business administration, Bachelors of commerce, Bachelors of technology, Bachelors of engineering and Bachelors of hotel management..

4.4 Collection of data

The data was collected using a questionnaire which was filled by 150 respondents from 18 to 22 years of age. The respondents were instructed to clarify any terms or question which were unclear to them. The questionnaire included the general questions about language and a test of Grade 6 was also attached with the questionnaire. For the language test one mark for each correct answer was given and the maximum marks were twelve.

5.1 DATA ANALYSIS AND INTERPRETATION

Maximum students amongst the respondents attended private schools. The location of these private schools was either rural or in towns. Seventy percent of the respondents are from the rural areas and most of them belong to the upper middle class.

When data was analyzed for the variable 1, it was found that 84 Out of 105 rural students have studied English as a subject from beginning, 6 from class 6th and 14 from 8th class .While in urban 44 out of 45 students have studied English from beginning

When data was analyzed for variable 2, it was found that 9 students from rural background have said that they can't even read and write English. While the same, in case of students from urban background was zero. When data was analyzed for variable 3, it was found that 33 students out of 105 rural students suggested that medium of studies should be both English and Punjabi while 10 suggested that medium of studies should only be Punjabi.

When data was analyzed for variable 5, it was found that 34 students from rural background don't even understand when the lecture is completely delivered in English and 10 out of those 34 don't even ask to teacher for help when they don't understand. 7 from urban also don't understand when the lecture is completely delivered in English and 4 out of that 7 don't even ask for help. It was also found that 20 out of 105 rural students don't find it comfortable while talking to students from urban area due to their lack of fluency and confidence in the English language.

When data was analyzed for variable 4, it was found that 30 students from rural background have said that they don't even use dictionary for help.9 out of 45students from urban background have also said that they don't use a dictionary.

When data was analyzed for variable 9, it was found that Only 72 students from rural background are doing their respective courses for getting job while the rest are doing it either for getting married or parental pressure. And some of them said that they don't even know why they are doing the course. While 31 out of 45 students from urban background are doing their respective course for getting job.

When data was analyzed for variable 8, it was found that the percentage of students whose parents are illiterate is 6.7 % , those whose parents are graduate is 36.7 %, those whose parents are Matriculate is 48.7 and of those students whose parents are Post-graduate is 8.

Average score of students from rural background is 5.3 while that of urban background is 6.5. Average of 51 students from rural background is who have studied from government school is 5.05 while those who have studied from private school is slightly better i.e. 5.5.The average score of students whose parents are graduate is 5.8.of 55 students .While that of those whose parents are illiterate is 5.9 of 10 students and those whose parents are post graduate is 6.41.The overall average of all the students from both regions is 5.6.

On inferential analysis of the variables in consideration, strong positive correlation was found between variable 2 and 4 meaning students who were comfortable with the language English were the ones using dictionary rather than the ones who do not comprehend the language. There is a strong negative correlation between variable 3 and 5 meaning that students who do not prefer the language English as the sole lecture delivery medium do not understand the lecture that is delivered in English.

7.1 RESULTS AND DISCUSSIONS

From the collected data it can be deduced that Language is a major constraint for undergraduates both from rural and urban background. The research was conducted mainly for the students from rural background but as the results were analyzed it was found that the undergraduates from urban background also don't have a very good command on language. It is concluded on the basis of Grade 6 test of English which was attached with the questionnaire. It showed that there is very little difference between the average scores of the students from urban and rural background that was 5.3 of students from Rural background and 6.5 of students from urban background which shows that both need remedial measure to be taken.

The major problems faced by the students of rural background as they enter into graduation as deduced from the data analyzed can be enumerated as under

i. As majority of the sample size belonged to rural background, though more than 50% studied in private schools, found the lectures delivered in English difficult to apprehend

ii. Though 85% of the students studied English language from the beginning but they still prefer lectures to be delivered in the regional language for a better understanding.

iii. Both written and oral grammatical mistakes are made by the students.

iv. A minority group of students usually from rural background are reluctant to ask the concerned instructor for help.

v. Aids like dictionary are used by only 74% students.

	Var 1	Var 2	Var 3	Var 4	Var 5	Var 6	Var 7	Var 8	Var 9	Var 10	Var 11
	149	149	150	149	150	149	150	150	148	146	150
Var 1	1	.030	-.117	-.024	.299**	-.051	.119	.006	.142	-.051	-.305**
Var 2	.030	1	-.245**	.215**	.086	.003	.226**	.026	.064	.106	-.011
Var 3	-.117	-.245**	1	-.166*	-.328**	-.033	-.233**	.030	.088	-.108	.177*
Var 4	-.024	.215**	-.166*	1	.062	.163*	-.024	-.124	.067	.086	-.090
Var 5	.299**	.086	-.328**	.062	1	.190*	.109	-.057	.070	.084	-.157
Var 6	-.051	.003	-.033	.163*	.190*	1	-.148	-.149	.247**	.163*	.003
Var 7	.119	.226**	-.233**	-.024	.109	-.148	1	.044	-.149	-.088	-.128
Var 8	.006	.026	.030	-.124	-.057	-.149	.044	1	-.027	-.004	-.006
Var 9	.142	.064	.088	.067	.070	.247**	-.149	-.027	1	-.020	-.094
Var 10	-.051	.106	-.108	.086	.084	.163*	-.088	-.004	-.020	1	.086
Var 11	-.305**	-.011	.177*	-.090	-.157	.003	-.128	-.006	-.094	.086	1

Table 1 Source: Author's construction

A School is an institution designed for the teaching of students under the direction of teachers. Most countries have systems of formal education, which is commonly compulsory. In these systems, students progress through a series of schools. The names for these schools vary by country but generally include primary school for young children and secondary school for teenagers who have completed primary education. An institution where higher education is taught is commonly called a university college or university.

In addition to these core schools, students in a given country may also attend schools before and after primary and secondary education. Kindergarten or pre-school provide some schooling to very young children

Rural Students who have studied from government schools had average of 5.05 in the test conducted while that of the students who have done schooling in private schools averaged 5.5 which is slightly better than Government schools

Socioeconomic is an economic and sociological combined total measure of a person's work experience and of an individual's or family's economic and social position in relation to others based on income, education and occupation. When analyzing a family's SEs the household income, earner's education and

occupation are examined, as well as combined income versus with an individual, when their own attributes are assessed.

Education in higher socio economic families is typically stressed as much more important, both within the household as well as the local community. In poor areas, where food and safety are priority, education can take a back seat

On the basis of survey conducted it was also found that Socioeconomic status also have effect on students performance. The average of the students who belonged to lower class was found to be 4.76 while that of lower middle class, upper middle class and upper class were 5.27, 5.50 and 5.14 respectively. This shows that socioeconomic status also acts as a constraint in the way of getting quality education for rural students.

Qualification may refer to, a title or attribute gained in education, through examination or by certification.

The impact of parent's qualification is also seen on the students. The students whose parents are post graduates had average score of 6.41 which was 5.8 in case of those students whose parents were illiterate or matriculate. This shows that the environment of the house also affects the child.

There was also difference between the scores of rural students those from Government School from those who have done schooling in private school. The results of private schools were on the better side which shows that government schools needs to give much more importance on language .The impact of parents qualification is also seen on the performance of students. The students whose parents are post graduate had average of 6.41 which was 5.8 in case of those students whose parents were illiterate or matriculate. Many of students said that they are doing their respective courses for getting job but the number of those who said that they are doing it for parental purpose , for getting married were also high . some of students also responded that they don't even know why they are doing this course. The students who said that they are doing course for getting job were on the higher side in case of average scores than of those who don't know or who are doing it for parental purpose which shows that the students who want to get job are interested toward learning language but due to schooling being not so good there command is not good but their score average is still higher than other who are not doing their courses for getting job. There were also students who said that they don't use dictionary for difficult words and average score of those students was found to be 5.1 which is lower from all the other categories. Which shows that students should made familiar with dictionary and its usage

The number of students who said that they don't understand the lecture when delivered completely in English was also very high. About 32 % of the students from rural background said that they don't understand the lecture when delivered completely in English .the majority were from 1styear .Now imagine if suppose in a class of 60 10 don't even understand anything than what would be their efficiency? What will they learn? This fact is also so threatening that 29% of those who don't understand don't even ask teacher for help .Some students also said that they can't even read and write English and the percentage of rural students who suggested that medium of studies should be both English and Punjab is 32% and 9% of the students from Rural background even suggested that medium of studies should be Punjabi. This shows that students from rural background are not comfortable when the lecture is delivered in English.

7.5 CONCLUSION

From the above data we can conclude that there requires a substantial improvement in the educational set up of the rural as well as urban areas. A strict protocol should be devised in relation to the functionality, curriculum, extra curriculum of secondary and higher education. The structure of primary and secondary education need to be changed with emphasis on areas of communication, both, hard skills and soft skills, mode of teaching and most importantly the general aptitude of the students. Also the colleges should keep in mind that all the students who are admitted in the said graduation courses are not from similar backgrounds hence remedial steps should be taken to counter such hurdles in uniform delivery of quality education. Also counseling centers in the rural areas should be established so as to guide students regarding their higher education.

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ANNEXURE - I

Since which class do you have English as a subject	Variable 1	Aptitude for English language
Can you read and write English	Variable 2	
What should be the medium of education in your college	Variable 3	
Used a dictionary to understand difficult words	Variable 4	
Do you understand when the lecture is completely delivered in English	Variable 5	Problems faced by rural (residents) students as they enter college
Do you ask your teacher for help	Variable 6	
Comfortable talking to other students in your class who are from urban areas	Variable 7	
Qualification of your parents	Variable 8	
Why are you doing this course	Variable 9	
Anything about you changed	Variable 10	
scoreoutof12	Variable 11	Grammatical aptitude

ANNEXURE II

SERIAL NO.

CLASS

NAME _____ AGE _____ SEX: Male/Female _____

SCHOOL: Rural / Urban: Government/ Private/ Other

MEDIUM OF STUDIES : Hindi/ Punjabi/ English
SOCIOECONOMIC STATUS: Upper class/Upper middle class/Lower middle class/Lower class

1. Since which class do you have English as a subject
i. From beginning ii. Class 8
iii. Class 6 iv. Never studied

2. Can you read and write English
i Yes ii. No

3. According to you, what should be the medium of education in your college
i Punjabi ii. Both
iii. English iv. Not important

4. Have you ever used a dictionary to understand difficult words
i Yes ii. No

5. In class do you understand when the lecture is completely delivered in English
i Yes ii. No

6. If you do not understand anything in class due to the language used, do you ask your teacher for help
i Yes ii. No

7. Do you feel comfortable talking to other students in your class who are from urban areas
i Yes ii. No

8. What is the educational qualification of your parents

i Illiterate ii. Graduate
iii. Matriculate iv. Post graduate

9. Why are you doing this course
i. To get a job ii. To get married
iii. Parental pressure iv. Don't know

10. Since you have joined college has anything about you changed

i Yes ii. No

FACTORS OF MOBILE APPLICATIONS AFFECTING CONSUMER BUYING BEHAVIOR

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1. ABSTRACT:

1.1 Purpose:

This study is being conducted to investigate the factors of mobile application affecting the decision of consumer buying through mobile application.

1.2 Design:

For accomplishment of the objectives of the study, a sample of 85 consumers was taken by using snowball and judgemental sampling. Primary data is collected. Moreover, 4 important factors i.e. ease of using app, interactivity, preference (exciting), usage intention towards mobile app were selected and analysed through the use of correlation, multiple regressions analysis, Mann Whitney U test and Kruskal Wallis test.

1.3 Findings:

a) Among the four factors we studied only the effect of usage intention towards mobile apps is significantly predicting the consumer buying behaviour.

b) There is no significant impact of gender on consumer buying behaviour.

c) The age group 24 to 27 is significantly affecting the consumer buying behaviour.

1.4 Practical implications:

a) The research gives us the clear idea at which area we should invest our time and money to attract consumers to purchase and that is clearly predicted here that he will buy only if he wanted to, and the other 3 factors also do not have any negligible impact so they must also needs to be presented in the mobile app.

b) The age group 24 to 27 is more impulsive in buying through mobile apps so we just have to attract them by providing attractive offers and discounts which they otherwise would not get. And clearly shows the compared price offered of the websites and the app.

c) The study gives us clear indication of the segmentation that we can use same strategy for both males and females but target age group here is 24 to 27.

2. INTRODUCTION:

User base of mobile application users is continuously increasing of which apple store and android stores hold the maximum market share. Till 2014 android was leading player with 1.3mn application in there Google store making them leading player in the market followed by apple store with 1.2mn applications. In 2014 the 80% of time spent by users using internet on mobiles was on mobile application only 20% was on mobile web.

All the e-commerce websites are shifting their focus from web based selling to app based selling. As app based selling is cheaper than web based selling. Extensive mobile application

promotional offers is a proof to that, that all major players in market are designing their strategies keeping mobile applications in their mind.

For example Myntra, owned by Flipkart, 90% of its traffic came from mobile devices, announced by them in February, 2015. In six months to a year, its website may disappear altogether. "We get 70% of our business from mobile," says Prasad Kompalli, head, ecommerce platform, Myntra. "This platform helps us deliver our value proposition to the customer better, with more personalised offerings.".

Also, flipkart always have some apps only discount offers on their products. All the e-commerce companies like Jabong , Yepme , etc. are providing heavy discounts and promotional offers for first time application download by users. Snapdeal too is placing mcommerce at the centre of its strategy, as it closes in on the acquisition of Freecharge, an online provider of recharge services for a variety of products, for a Rs 2,800 crore. "For every new strategic initiative and every new marketing campaign, we think mobile first," says Ankit Khanna, vice-president, product management, at Snapdeal.

Even companies from different industries like Uber, Ola cabs which are taxi booking service providers, Make my trip, goibibo from travel industry and paytm and freecharge which were first established as prepaid mobile recharging websites are now entering into e-commerce in India, are promoting themselves heavily via promotional offers on mobile applications. As these internet commerce companies launch mega sales to bring in customers, mobile is a key platform to keep them buying — companies get 50-70% of sales from them and say this could increase by 10-15% as mobile data coverage and speeds improve.

If the elephant is beginning to dance, the flyweights aren't ducking for cover. New startups are standing up to be counted. For example, in Mumbai, TinyOwl, a food ordering startup, hasn't even bothered with a web presence. Instead, the company proudly calls itself a mobile-only (as opposed to a mobile-first) venture. "Many people have used the internet for the first time on smartphones," says Harshvardhan Mandad, a cofounder of the startup. "The future is mobile and we want to build a company for it."

Already, global giants such as Google, Amazon and Facebook are investing heavily in mobile wallets, and more Indian firms could follow suit. "We will have around 100 million mobile wallets by the end of the year," says Vijay Shekhar Sharma, founder of Paytm.

So it is clearly evident that the role of mobile application in business is continuously increasing. In this research we have tried to identify those factors of the mobile applications which have the most effect on the buying behaviour of the consumers.

3. LITERATURE REVIEW:

A consumer is anyone in the market who consumes goods and services of the firms from marketplace for their personal use. Consumer can be an organization as well as an individual. The consumer buying behaviour is a 5 step process which starts with the recognition of need for the product, then searching information of product, evaluation of product, purchase and finally feedback of product. However these factors of consumer buying behaviour are affected by both environmental and individual determinants.

Consumer buying behaviour is affected by these two major factors which are individual and environmental. Individual factors affecting consumer behaviour mainly comprise of demographics, perception, consumer knowledge, learning, motivation, beliefs, personality,

attitudes and life styles. The second category of factors is environmental factors. Environmental factors are those factors outside in the environment that affect individual consumer's decision making process. These factors include culture, reference group, social class, household and family. These factors are the major determinants of consumers behind their decisions to make a choice between given goods or services.

Mobile applications also called as mobile apps, are the Internet applications that run on smartphones, tablets and other mobile devices. Mobile applications are usually designed to help users by connecting them to Internet services which are otherwise normally accessed on desktop or notebook computers. A mobile app can be a mobile Web site bookmarking utility, Gmail for mobile, instant messaging mobile-based client, and many other types of applications. Purchases through applications are a growing business and e-commerce players has witnessed it recently, and also it is cheaper to maintain a mobile application than to maintain a computer website.

As consumer buying behaviour is affected by individual and environmental factors, in the same manner the consumer buying behaviour is affected by some factors when consumers do purchases through mobile application. We are trying to analyse the relationship between such factors of mobile application and its impact on consumer buying behaviour. These factors are:

- **Ease of use ability for application,**

The definition of usability in the ISO 9241 standard is:

“The extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use"

This definition can be expanded, and made more comprehensive, by including five characteristics which must be met for the users of a product:

Effective: Effectiveness is the completeness and accuracy with which users achieve specified goals

Efficient: Efficiency can be described as the speed (with accuracy) in which users can complete the tasks for which they use the product

Engaging: An interface is engaging if it is pleasant and satisfying to use.

Error Tolerant: The ultimate goal is a system which has no errors. But, product developers are human, and computer systems far from perfect, so errors may occur. An error tolerant program is designed to prevent errors caused by the user's interaction, and to help the user in recovering from any errors that do occur.

Easy to Learn: An interface which is easy to learn allows users to build on their knowledge without deliberate effort.

Interactivity with users: Interactivity is the communication process that takes place between humans and computer software. The most constant form of interactivity is typically found in games, which need a continuous form of interactivity with the gamer. Database applications and other financial, engineering and trading applications are also typically very interactive.

Preference: (excitement factor, i.e. weather application is able to excite their consumers), It means the apps that stir the consumer up, is new and unfamiliar to him, is varied and contrasting, are surprising and exciting and are bright and colourful.

Usage intention of the consumer: It is the intention of the users to use the application or to make the purchases through website. It includes would consumer purchase an item

from this app, would consumer recommend this site to a friend and would consumer register at this site.

4. PROBLEM STATEMENT :

The purpose of this research is to understand what factors of a mobile app make consumers to purchase on any particular app. And to find out whether the demographics i.e. age and gender affect consumer buying behaviour.

5. OBJECTIVES OF THE STUDY :

a. To study the impact of mobile application of companies on consumer buying behaviour.

b. To study the impact of demographics i.e. age and gender on consumer buying behaviour.

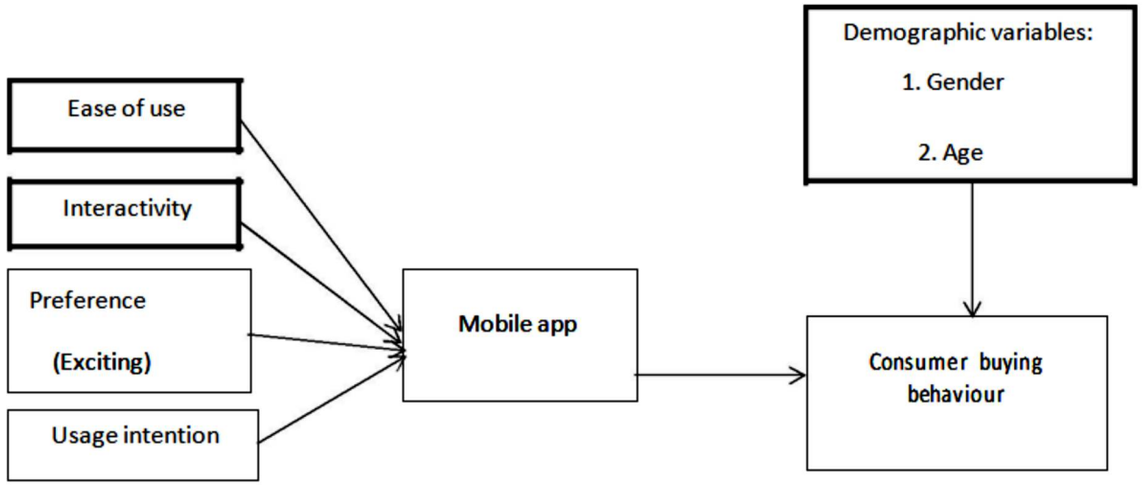
6. NEED FOR STUDY:

The need for study arises because no research has been done in this area till now to find out the factors of mobile applications of companies which affect the consumer buying behaviour. And as we know now about the internet world every business wants to sell through an app or till now through ecommerce websites. So this is the very important and emerging issue which needs to be studied in order to make the purchase effective. And not to spend money on those activities which consumers really don't care. Rather to find out the area which will affect his mind and make him to react and buy the product.

7. Research gap :

All the researches which have been till today never addressed this issue. Most of them tried to find attitudes, behaviours, perception towards online shopping and ecommerce websites but not apps. So here we are studying to find out which factor affect the consumer buying behaviour most towards the use of mobile apps.

8. CONCEPTUAL MODEL OF THE STUDY:



The variables used in the study are:

Independent variables: ease of use, interactivity, preference (exciting), usage intention

Dependent variables: consumer buying behaviour

Demographic variables: age and gender

Hypothesis formulated:

H1a : There is a significant relationship between ease of use dimension of mobile app and consumer buying behaviour.

H1b : There is a significant relationship between interactivity dimension of mobile app and consumer buying behaviour.

H1c : There is a significant relationship between preference dimension of mobile app and consumer buying behaviour.

H1d : There is a significant relationship between usage intention dimension of mobile app and consumer buying behaviour.

H1e : There is a significant difference of gender on consumer buying behaviour.

H1f : There is a significant difference of age on consumer buying behaviour.

9. RESEARCH METHODOLOGY:

Research design:Descriptive studyMethod of Data Collection:Survey (online)Type of Hypothesis formulated:Alternate HypothesisSample size:85Sampling technique:Snowball and judgemental sampling

To collect the data for this study, a survey was done with the help of a questionnaire. The questionnaire was distributed online to respondents of the sample and their responses have been collected. Data was collected through an online survey. For selection of respondents snowball and judgemental sampling is

used. The questionnaire has been mailed to some of the friends and then they have forwarded to their friends and it is also filled by some of management students who have used some mobile apps.

10. DATA ANALYSIS AND INTERPRETATION:

10.1. Reliability analysis

The data was first tested for reliability using Cronbach's alpha to assess data reliability. The results are shown in Table below. As most research methods guides treat a value higher than 0.7 as acceptable, the values in the table indicate that the data collected from the survey are reliable and suited for further analysis.

Table 1:

Measured variables	Question item	Source	Cronbach's alpha
Mobile app	**15**		
Ease of use	4	Montoya-Weiss, Voss, and Grewal (2003).	0.830
Interactivity	3	Sicilia, Ruiz, and Munuera (2005)	0.789
Preference(exciting)	5	Menon and Kahn (2002)	0.692~0.70
Usage intention	3	Bart et al. (2005)	0.848
Consumer buying behaviour	**9**	Peck and Childers (2003)	0.785

10.2. Shapiro Wilk's test for normality:

The Shapiro–Wilk's test is a test of normality in frequentist statistics. The Shapiro–Wilk test utilizes the null hypothesis principle to check whether a sample came from a normally distributed population. Shapiro Wilk's test is shown below for independent variables i.e. Ease of use, interactivity, preference (exciting) , usage intention.

Table 2:

	Consumer buying behaviour	Shapiro-Wilk Significance
Ease of use	2	0.044
	3	0.000
	4	0.000
Interactivity	2	0.044
	3	0.000
	4	0.001
Preference	2	0.046
	3	0.000
	4	0.000
Usage intention	2	0.046
	3	0.000
	4	0.000

Interpretation:

The null-hypothesis of this test is that the population is normally distributed. Thus, if the p value is less than the chosen alpha level (0.05), then the null hypothesis is rejected and there is evidence that the data tested are not from a normally distributed population. In other words, the data are not normal. On the contrary, if the p-value is greater than the chosen alpha level, then the null hypothesis that the data came from a normally distributed population cannot be rejected.
Since the p value of the Shapiro-Wilk Test here is less than 0.05, hence the data is not normal.

10.3. Correlation analysis

A correlation analysis indicates that whether the independent variables i.e. Ease of use , interactivity , preference , usage intention and the dependent variable consumer buying behaviour significantly co-vary with each other or not. Here in, we focus on the Spearman's correlation coefficients. The correlation coefficients take on values between −1 and +1, ranging from being negatively correlated (−1) to uncorrelated (0) to positively correlate (+1).

The sign of the correlation coefficient (i.e., positive or negative) defines the direction of the relationship. The absolute value indicates the strength of the correlation.

Table 3:

	Spearman's rho correlation	Ease of use	Interactivity	Preference	Usage intention
Consumer buying behaviour	**r**	0.195	0.034	0.117	0.356**
	Significance (2 tailed)	0.074	0.756	0.286	0.001
	N	85	85	85	85

r= correlation coefficient, N=total respondents.

**correlation significant at 0.01 level (2 tailed).

Interpretation :

H1a : There is a significant relationship between ease of use dimension of mobile app and consumer buying behaviour. à **not accepted**

H1b : There is a significant relationship between interactivity dimension of mobile app and consumer buying behaviour. à **not accepted**

H1c : There is a significant relationship between preference dimension of mobile app and consumer buying behaviour. à **not accepted**

H1d : There is a significant relationship between usage intention dimension of mobile app and consumer buying behaviour. à **accepted**

10.4. Regression analysis

It is used when we want to predict the value of a variable based on the value of another variable. The variable we want to predict is called the dependent variable (or sometimes, the outcome variable). The variable we are using to predict the other variable's value is called the independent variable (or sometimes, the predictor variable).

Table 4:

Model	Unstandardized Coefficients
	B
(constant)	1.378
Ease of usage	0.146
Interactivity	-0.032
Preference	0.077
Usage intention	0.301

Interpretation :

The dependency of consumer buying behaviour on the independent factors is represented by following equation:

Consumer buying behaviour = 1.378 + 0.146*(ease of use) – 0.032*(interactivity) + 0.077*(preference) + 0.301*(Usage Intention)

10.5. Mann Whitney's Test

The Mann-Whitney U-test is a statistical comparison of the mean. The U-test is a member of the bigger group of dependence tests. Dependence tests assume that the variables in the analysis can be split into independent and dependent variables. We are applying m Mann Whitney's test here to analyse the relation between gender and consumer buying behaviour of respondents.

H1e : There is a significant difference of gender on consumer buying behaviour. ànot accepted

Table 5:

Ranks

	Gender	N	Mean Rank	Sum of Ranks
Consumer Buying	male	69	43.62	3009.50
	female	16	40.34	645.50
	Total	85	80.96	3655.0

This table shows us the mean ranks of both the genders.

Table 6:

Test Statistics[a]

	Consumer Buying behaviour
Mann-Whitney U	509.500
Wilcoxon W	645.500
Z	-.553
Asymp. Sig. (2-tailed)	.580

Interpretation :

Here it is clearly visible that level of significance is higher than 5%, i.e 58%, hence our null hypotheses is excepted which is, there is no significant difference of gender on consumer buying behaviour.

10.6. Kruskal-Wallis H test

The Kruskal-Wallis test is a rank-based nonparametric test that can be used to determine if there are statistically significant differences between two or more groups of an independent variable on a continuous or ordinal dependent variable. It is considered the nonparametric alternative to the one-way ANOVA, and an extension of the Mann-Whitney U test to allow the comparison of more than two independent groups.

H1f : There is a significant difference of age on consumer buying behaviour. à accepted

Table 7:

	Age	N	Mean rank
Consumer Buying Behaviour	18 to 21	3	32.50
	21 to 24	54	40.75
	24 to 27	9	62.44
	27 to 30	19	41.84
	Total	85	

	Consumer buying behaviour
Chi-square	8.879
Df	3
Asymp. Sig.	0.031

a. Kruskal Wallice test
b. Grouping variable: age

Interpretation

A Kruskal Wallis H test showed that there was a statistical significance in age group and consumer buying behaviour of respondents, $\chi 2 = 8.8790$, $p = 0.031$, with a mean rank score of 32.50 for age group 18-21, 40.75 for age group 21-24, 62.44 for age group 24-27 and 41.84 for age group 27-30.

11. CONCLUSION:

From the study these are the following conclusions:

1. The consumer now is expecting that the features like ease of use that means that he will easily find what he wanted to, will be there on the apps he is using. So this is not going to make any impact on his buying behaviour. As the result shows that the change in consumer behaviour will be only 14.6% due to 1 unit change in ease of use.

2. Similarly interactivity will affect his behaviour to buy any product through mobile app by just 3.2% and preference means excitement towards any apps will not make him to change his buying behaviour by more than 7.7%.

3. The only important factor which has a significant impact on his buying behaviour is usage intention which will change his buying behaviour by 30.1%.

4. The age group of 24-27 leads in predicting the consumer buying behaviour in favour of usage intention of mobile apps.

5. Gender does not play any role in predicting consumer buying behaviour in favour of usage intention of mobile apps. That means both males and females have more or less the same opinion.

12. LIMITATIONS:

a) All the factors of mobile apps have not been covered which can affect the consumer buying behaviour. So it is the future scope of the project.

b) Attitude towards the app has not been studied which may also bring different results. So it is to be studied in future.

c) Only the residents of Chandigarh, Panjab, Delhi, Ghaziabad have been surveyed.

d) Only the age group 18 to 30 is considered here in our research. The results might be different for other age group.

e) The buying behaviour may be affected by many other factors but due to lack of time and resources only the gender and age effect is considered.

13. IMPLICATIONS TO THE INDUSTRY:

1. As the factor usage intention of mobile apps is playing an important role in affecting the consumer buying behaviour. So the mobile apps companies have to make promotional strategies accordingly like by making leads, and referring through friends to each other. But also not compromising on the other factors which consumer is expecting to be presented otherwise.

2. The age group 24 to 27 is more impulsive in buying through mobile apps so we just have to attract them by providing attractive offers and discounts which they otherwise would not get. And clearly shows the compared price offered of the websites and the app.

3. The study gives us clear indication of the segmentation that we can use same strategy for both males and females but target age group here is 24 to 27.

APPENDIX:

Questionnaire:

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AUTHOR GUIDELINES

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II. For edited books: Surnames, Initials of chapter author (year), "chapter title". Editor's surname, initials (ed), title of book, publisher, place of publication, pages. **E.g. Aggarwal, M. (2002), "Corporate Governance in banks", in Vashisht, Tendon and Arya, (Ed.), Corporate Governance, Deep and Deep Publications Pvt Ltd, New Delhi, India, pp. 15-20.**

III. For journals: surname, initials (year), "title of article", Journal Name, Volume, Number, pages. **E.g. Aggarwal,M. (2010), "Analysis of Price Discovery Tools Operative in Indian Capital Market", Optimization, Vol. 2, No.1, pp.72-80.**

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V. For unpublished conference proceedings: Surname, Initials (year), "title of paper" , paper presented at name of conference, date of conference, place of conference, available at: URL if freely available on the internet (accessed date). **E.g. Aumueller, D. (2005), "Semantic Authoring and Retrieval within a wiki", paper presented at the European Semantic Web Conference (ESWC), 29 May-1 June, Heraklion, Create, available at: http://dbs.uni-leipzig.de/file/aumueller05wiksar.pdf (accessed 20 February 2007).**

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VI. For encyclopedia entries (with no author or editor): title of encyclopedia (year) "title of entry", volume, edition, title of encyclopedia, publisher, place of publication, pages. **E.g. Encyclopedia Britannica (1926) "Psychology of Culture Contact", Vol.1, 13th Ed., Encyclopedia Britannica, London and New York, NY, pp.765-71. (For authorized entries please refer to book chapter guidelines above.)**

VII. For newspaper articles (authored): surname, initials (year), "article title", newspaper, date, pages. **E.g. Sanyal, S. (2010), "Government won't make CSR spending mandatory", The Economic Times, December 23, pp. 1.**

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IX. For electronic sources: if available online be the full URL should be supplied at the end of the reference, as well as a date that the resource was accessed. **E.g. castle, b, (2005), "introduction to web services for remote portlets", available at : http//www.128.ibm.com/developerworks/library/ws-wsrp/ (accessed 12 November 2007).**

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