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Aims and Objectives: The Indian Journal of Commerce, started in 1947, is the quarterly publication of the All India Commerce Association to disseminate knowledge and information in the area of trade, commerce, business and management practices. The Journal focuses on theoretical, applied and interdisciplinary research in commerce, business studies and management. It provides a forum for debate and deliberations of academics, industrialists and practitioners.

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From the Editor's Desk

DYNAMICS AND CHALLENGES FOR RESEARCH

Business environment in India is found to be very dynamic in recent years. The world ranking of Indian economy has increased significantly over the years and it is now the 6th largest economy in terms of nominal GDP and the 3rd largest economy by purchasing power parity. India also has improved its position in the 'Doing Business Report' published by the World Bank. Thus, the present positioning of Indian economy in the World economic scenario provides a testimony to the fact that there have been substantial progresses in the economic and financial front. .

Myriad developments in India have been reflected in the form of visible impacts on commerce and the economy as a whole. Concepts like financial technologies (Fintech) 'block chain,' 'big-data,' and 'bitcoin' etc are challenging the conventional nation state concepts as well as the way commercial transactions are carried out up till now. It has become imperative for the researchers to understand and explain wider ramifications of commercial and social impacts. There is no gainsaying of the fact that the recent reform measures in India like 'demonetization,' 'recapitalisation of banks,' 'social sector spending,' 'infrastructure development,' 'tax reforms,' corporate reporting and 'financial inclusion' etc are expected to bring about significant changes in the way commerce is conducted in contemporary scenario. The follow up impact of these measures on 'corporate sustainability,' 'corporate governance,' 'non-performing assets,' 'emergence of global entrepreneurs,' etc. is going to fundamentally affect the way business is evaluated. There also have been concerns about the rising frauds, terrorism funding, women atrocities, social unrest among weaker sections and farmers.

Besides observable changes in the business sector, notable changes are also observed in the social sector which is likely to affect the way people work and earn their living. The rise of disposable income, changes in the demand pattern for goods and services, preference for work and leisure, gender equality and assertiveness are the factors undoubtedly poised to bring major changes in the economic and allied activities.

Unlike the past, academic research has now been more exciting and challenging as the academic world confronts dynamic impacts of socio-economic and technological advancements. On one hand, there is a substantial growth of open publishing, rise in demand for more democratization of all most all academic processes, and on the other hand, there is an increasing demand for quality research and publication. The debate seems to be never ending. It is therefore, imperative that the researchers and academicians shall have to be innovative and more sensitive to changes taking place in the Indian economy and society with a view to bringing about a paradigm shift in their outlook and insight towards existing theories and the methods of conducting business of the past. Finer nuances of business, societal dynamics, and environment concerns are some of the important areas that the researches should be focused on and the findings are disseminated for larger good.

Editor, IJC

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CONTENT

Notes for Contributors

Papers based on application oriented research or field studies in the areas of industry, commerce, business studies and management are invited. The length of a paper including tables, diagrams, illustrations, etc., should not exceed 20 double space pages. Short communications (not more than 5 double spaced pages) relating to review articles, report of conferences, summary/views on various governments reports, debatable issues, etc., are also published. Book reviews and summary of Ph.D. dissertations not exceeding two double spaced pages, are welcome. Manuscripts sent for publication in this journal should not have been published or sent for publications elsewhere. All correspondence will be held with the senior (first) author only.

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Impact of Internal and External Factors on Profitability of Nepalese Commercial Banks

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Nirajan Bam

Abstract

This study examines the impact of firm specific and macro-economic variables on the profitability of Nepalese commercial banks. Return on assets and return on equity are the dependent variables. The independent variables are credit risk, capital adequacy ratio, liquidity ratio, bank size, gross domestic product and inflation. The study is based on secondary data of 14 commercial banks with 126 observations for the period of 2008/09 to 2016/17. The data are collected from the Banking and Financial Statistics and Central Bureau of Statistics of Nepal published by Nepal Rastra Bank and annual reports of the selected commercial banks. The regression models are estimated to test the significance and importance of different factors on the profitability of Nepalese commercial banks.

The result shows that shows that bank size have a positive relationship with return on assets and return on equity. It indicates that larger the bank size, higher would be the return on assets and return on equity. Similarly, gross domestic product has a positive relationship with return on assets and return on equity. It indicates that higher the gross domestic product, higher would be the return on assets and return on equity. The result also reveals that credit risk and liquidity have a negative relationship with return on assets and return on equity. It indicates that increase in credit risk and liquidity leads to decrease in return on assets and return on equity. The regression results show that the beta coefficients for capital adequacy ratio and bank size are positive with return on assets and return on equity. The result also shows that the beta coefficients for credit risk are negative with the profitability of Nepalese commercial banks.

Keywords: *Bank size, credit risk, inflation, capital adequacy product, liquidity ratio, return of equity and return on assets.*

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Introduction

A sound and profitable banking system contributes more significantly to the growth of the financial system (Aburime, 2009). Economies that have a profitable banking sector are better able to withstand negative shocks and contribute to the stability of the financial system (Athanasoglou *et al.,* 2005). Therefore, it is important to understand the determinants of banking sector profitability. Similarly, Goddard *et al.* (2004) stated that profitability is vital in maintaining the stability of the banking system and contributes to the state of the financial system.

Profitability has become one of the challenges faced by the commercial banks to strengthen their financial positions in order to meet the risks associated with openness and globalization. A profitable banking sector would withstand negative shocks better and contribute to the stability of the financial system (Petria et al., 2015). The profitability determinants are well observed and explored, as it is increasingly important to strengthen the foundations of the domestic financial system as a way to buildup flexibility for capital flow volatility. The commercial banks profitability is affected by managerial (internal) and environmental (external) factors (Guru et al., 2002). The managerial factors are affected by management decisions and goals to be achieved by the bank management; such as capital ratio, credit risk, productivity growth and size of the bank performance. The environmental factors are affected by external forces such as financial market structure, trade interdependence, economic growth, inflation, market interest rates and ownership structure.

Derbali (2017) suggested that banks with lower credit risk, which are well capitalized, tend to be more profitable, while banks with higher expense preferences exert a negative impact on the performance of Chinese banks. Similarly, Sufian (2010) analyzed the determinants of the bank profitability in Korea between 1994 and 2008. The study showed that the banks presenting a lower credit risk have the tendency to record higher profitability levels. Deger and Adem (2011) showed that asset size and non-interest income have a positive and significant effect on banking profitability. However, the size of the credit portfolio and loans under follow-up has a negative and significant impact on this profitability. As for the macroeconomic variables, only the real interest rate affects the performance of banks positively.

Trujillo-Ponce (2013) empirically analyzed the determining factors of banking profitability in Spain, between 1999 and 2009. The results showed that better capitalized banks have a higher level of return on assets. Regarding the exogenous variables, the study showed a positive relationship between the market concentration and the profitability of the Spanish banks. Similarly, Moussa et al. (2013) analyzed profitability and its determinants for nine emerging countries including Tunisia. The results revealed that operating expenses management, capitalization, credit risk, bank size and inflation are important determinants for both returns on asset and net-interest margin. Likewise, Makkar and Singh (2013) revealed a significant difference in the capital adequacy, asset quality and earning capacity of public and private sector banks in India. On the other hand, the study found no significant difference in the management, liquidity position and sensitivity to market risk of the two different banking groups. Thus, the study concluded that there was no statistically significant difference in the financial performance of the public and private sector banks in India.

Ali *et al.* (2011) examined the bank specific and macroeconomic determinants of profitability for commercial banks in Pakistan. The study found that return on assets (ROA) has a positive relationship with size, total deposits to total assets ratio and operating income/total assets ratio. On the other hand ROA has negative association with capital and credit risk. The study also showed that GDP is one factor that has significant impact on the profitability of banks. Alper and Anbar (2011) revealed that the increase in the bank size and non-interest income inflated the profitability of the banks, whereas the higher interest rates improve the profitability of the banks. However, Deger and Adem (2011) found that the size of the bank has a significant and positive impact on the profitability of banks. Likewise, Bikker and Hu (2002) showed that there is a direct relationship between the size and profitability of banks. According to Mamatzakis and Remoundos (2003), size of the market, defined by the supply of money, significantly influences profitability.

Moussa (2013) found a positive relationship between capital and financial performance. It indicates that if the capital ratio increase then the financial performance of the banks located in Tunisia will be improved. Likewise, Kasman *et al.* (2010) found that the cost efficiency, capital adequacy ratio and GDP growth rate are positively related to the profitability of the banks. However, credit quality of loan portfolio and unemployment are negatively related to the performance of the bank. Similarly, Riaz (2013) found that the credit risks as well as interest rate also have a significant influence on the profitability in Pakistan commercial banks. Davydenko (2010) concluded that there is an inverse relation between liquidity and profitability of banks. Inadequate liquidity is one of the main reasons of crisis and bankruptcy of banks. However, maintaining high cash reserves creates an opportunity cost, and the existence of free cash flow reduces the profitability of banks. Likewise, Eljelly (2004) found that there is a significant negative relationship between the firm's profitability and liquidity when it is measured by current ratio.

Noman *et al.* (2015) showed a negative and significant effect of capital adequacy ratio on return on assets. Ejoh et al. (2014) concluded that banks' profitability is inversely influenced by the levels of loans and advances, non-performing loans and deposits, thereby exposing them to great risk of illiquidity and distress. Similarly, Ogboi and Unuafe (2013) showed that sound credit risk management and capital adequacy influenced positively on bank's financial performance. However, Kurawa and Garba (2014) found that that all the credit risk management indicators have significant effect on the financial performance of the Jordanian commercial banks.

Sufian and Habibillah (2009) suggested that credit risk and cost have positive and significant impact on bank performance. However, non-interest income exhibits negative relationship with bank profitability. According to Abduh and Idrees (2013), capital, assets quality, liquidity and operational efficiency have a significant impact on the profitability. However, this study showed that bank ability to predict future inflation has a significant impact on the performance of Islamic banks in terms of profitability. Similarly, Owoputi *et al.* (2014) showed the existence of positive and significant effect of capital adequacy, bank size, and productivity growth and deposits on profitability. The study also found that inflation rate and interest rate were negatively and significantly related to bank profitability. Yakubu (2016) showed that GDP growth and inflation rate is negatively related to profitability. The results also observed that commercial banks profitability in Ghana is largely determined by bank-specific factors.

In the context of Nepal, Poudel (2012) revealed that there is significant negative relationship between return on assets and capital adequacy ratio. Chaudhary *et al.* (2017) found that board size, number of board meeting, size of firm have positive impact on firm performance. Similarly, Parajuli (2016) found that bank size is positively correlated to foreign banks return assets, return on equity and net interest margin, whereas there is no significant relationship with domestic commercial banks profitability. Pradhan (2016) determined the factors affecting profitability of Nepalese commercial banks. The study concluded that credit to total deposit ratio and liquidity are the major determinants of the profitability of Nepalese commercial banks. Manandhar *et al.* (2015) found that present credit risk of commercial banks is must influenced by the previous year's non-performing loans and capital adequacy of the respective banks.

The above discussion reveals that there is no consistency in the findings of various studies concerning the impact of internal and external factors on profitability of the banks.

The major purpose of this study is to analyze the impact of various internal and external factors on profitability of Nepalese commercial banks. Specifically, it examines the impact of capital adequacy ratio, credit risk, liquidity ratio, bank size, gross domestic product and inflation on the return on assets and return on equity of Nepalese commercial banks.

The remainder of this study is organized as follows: Section two describes the sample, data and methodology. Section three presents the empirical results and the final section draw conclusions and discuss the implications of the study findings.

1. Methodological aspects

The study is based on secondary data which were gathered from 14 Nepalese commercial banks from 2009/10 to 2016/17, leading to a total of 126 observations. The main sources of data include Banking and Financial Statistics and Central Bureau of Statistics of Nepal published by Nepal Rastra Bank and annual reports of the selected commercial banks. Table 1 shows the number of commercial banks selected for the study along with the study period and number of observations.

Table 1: List of commercial banks selected for the study along with study period and number of observations

S. No.	Name of the banks	Study period	Observations
1	Nepal Investment Bank Limited	2008/09-2016/17	9
2	Nabil Bank Limited	2008/09-2016/17	9
3	Standard Chartered Bank Limited	2008/09-2016/17	9
4	Himalayan Bank Limited	2008/09-2016/17	9
5	Nepal SBI Bank Limited	2008/09-2016/17	9
6	Nepal Bangladesh Bank Limited	2008/09-2016/17	9
7	Everest Bank Limited	2008/09-2016/17	9
8	Bank of Kathmandu Limited	2008/09-2016/17	9
9	NCC Bank Limited	2008/09-2016/17	9
10	Siddhartha Bank Limited	2008/09-2016/17	9
11	Laxmi Bank Limited	2008/09-2016/17	9
12	Machhapuchchhre Bank Limited	2008/09-2016/17	9
13	Prime Commercial Bank Limited	2008/09-2016/17	9
14	Sunrise Bank Limited	2008/09-2016/17	9
	Total number of observations		126

Thus, the study is based on 126 observations.

The model

The models used in this study assume that profitability of the banks depends upon the bank specific and macro-economic factors. The dependent variables are return on assets and return on equity. The selected independent variables are capital adequacy ratio, liquidity ratio, credit risk, bank size, gross domestic product and inflation. Therefore, the following model equation is designed to test the hypothesis.

Profitability = f (BS,CAR, LQD, RSK,GDP and INF)

More specifically,

$$ROA = \beta_0 + \beta_1 BS + \beta_2 CAR + \beta_3 LQD + \beta_4 RSK + \beta_5 GDP + \beta_6 INF + \varepsilon$$

$$ROE = \beta_0 + \beta_1 BS + \beta_2 CAR + \beta_3 LQD + \beta_4 RSK + \beta_5 GDP + \beta_6 INF + \varepsilon$$

Where,

ROA = Return on asset is the ratio of net profit to total assets, in percentage.

ROE = Return on equity is the ratio of net profit to total shareholders' equity, in percentage.

BS= Bank size is the total assets of the bank, Rupees in Billion.

CAR= Capital adequacy ratio is defined as tier I capital plus tier II capital divided by risk weighted assets, in percentage.

LQD = Liquidity is the ratio of liquid assets to total assets, in percentage.

RSK = Credit risk is measured by the ratio of non-performing loans to total loans, in percentage.

GDP = Gross domestic product is the rate of annual change in real gross domestic product, in percentage.

INF = Inflation defined as rise in general price level of goods and services in an economy, in percentage.

The following section describes the independent variables used in this study.

Bank size

Bank size is measured by the total assets of the banks. According to Dietrich and Wanzenried (2009), a growing bank size is positively related to bank profitability. Large size might result in economies of scale that reduce the costs of gathering and processing information (Boyd and Runkle, 1993). On the other hand, Sufian and Habibullah (2009) suggested that the effect of a growing bank's size on profitability may be positive up to a certain limit. Beyond this point, the effect of size could be negative due to bureaucratic and other reasons. Similarly, Jonsson (2008) revealed that bigger firms have higher profitability as compared to smaller firms. Based on it, this study develops the following hypothesis:

H_1: There is a positive relationship between bank size and profitability.

Capital adequacy ratio

Capital adequacy ratio shows the ability of bank to absorb losses and handle risk exposure with shareholder. A well-capitalized bank faces lower costs of going bankrupt which reduces their costs of funding and risks (Berger, 1995). Bourke (1989) found that there is a positive relationship between the financial performance and capital adequacy ratio. The study concluded that higher the capital adequacy ratio, higher would be the profitability. Similarly, Sufian and Chong (2008) reported a strong positive impact of capital adequacy ratio on bank performance in the context of Philippines from 1990 to 2005. Likewise, Deger and Adem (2011) found capital adequacy ratio has a positive relationship with bank profitability. Based on it, this study develops the following hypothesis:

H_2: There is a positive relationship between capital adequacy ratio and bank profitability.

Liquidity

Liquidity is measured by the ratio of liquid assets to total assets. Insufficient liquidity is one of the major reasons of bank failures. However, holding liquid assets has an opportunity cost of higher returns. Bourke (1989) found a positive significant link between bank liquidity and profitability. The study on the relationship between liquidity and profitability of commercial banks in Pakistan revealed significant and positive relationship between liquidity with profitability of the banks (Khan and Ali, 2016). However, Molyneux and Thorton (1992) concluded that there is a negative correlation between liquidity and profitability levels. Similarly, Eljelly (2004) found that there is a significant negative relationship between the firm's profitability and liquidity measured by current ratio. Drakos (2003) found a negative relationship between liquidity and profitability. Likewise, Sufian (2011) found that bank with higher liquidity levels tend to have less profitability. Based on it, this study develops the following hypothesis:

H_3: There is a negative relationship between liquidity and bank profitability.

Credit risk

According to Chen and Pan (2012), credit risk is the degree of value fluctuations in debt instruments and derivatives due to changes in the underlying credit quality of borrowers and counterparties. Boahene *et al*. (2012) used regression analysis to determine whether there is a significant relationship between credit risk and profitability of Ghanaian banks. The study found that there is a negative effect of credit risk on the profitability level of Ghanaian banks. Similarly, Jiménez *et al*. (2014) examined the determinants of bank's profitability and its implications on risk management practices in United Kingdom. The study found that liquidity and credit risk have negative impact on bank's profitability. According to Syahru (2006), loan loss provision has a negative impact on bank's profitability. Based on it, this study develops the following hypothesis:

H_4: There is a negative relationship between credit risk and bank profitability.

GDP rate

GDP is the monetary value of all the finished goods and services produced within a country's borders in a specific time period. Goddard *et al*. (2004) showed a significant positive effect of GDP on the bank performance. According to Ali *et al.* (2011), capital adequacy ratio, operational efficiency, asset management and gross domestic product have significant influence in the profitability of commercial banks in Pakistan. Similarly, Azam and Siddhiqui (2012) assessed the profitability of domestic and foreign banks in Pakistan during the period 2004 and 2010 on quarterly basis. The study found that there is a positive and significant effect of inflation and GDP on profitability of foreign banks. Based on it, this study develops the following hypothesis:

H_5: There is positive relationship between GDP growth rate and bank profitability.

Inflation

The financial performance of commercial banks is also relevant within the macroeconomic context, since the banking industry is one of the financial systems components, fostering economic growth and stability. At the macro level, a profitable banking sector is better able to withstand negative shocks and contribute to stability of financial system (Bobakova, 2003). Flamini *et al.* (2009) found that bank returns are affected by macroeconomic variables, suggesting that macroeconomic policies that promote low inflation and stable output growth boost credit expansion. Similarly,Francis (2013) found that operational inefficiency, inflation and liquidity ratio are negatively and significantly related to bank profitability. Based on it, this study develops the following hypothesis:

H_6: There is a negative relationship between inflation and bank profitability.

2. Results and discussion

Descriptive statistics

Table 2 presents the descriptive statistics of selected dependent and independent variables during the period 2008/09 to 2016/17.

Table 2: Descriptive statistics for selected Nepalese commercial banks

This table shows the descriptive statistics of dependent and independent variables of commercial banks for the study period of 2008/09 to 2016/17. The dependent variables are ROA (return on asset is the ratio of net profit to total assets, in percentage) and ROE (return on equity is the ratio of net profit to total shareholders' equity, in percentage). The independent variables are BS (bank size is the total assets of the bank, Rupees in Billion), CAR (capital adequacy ratio is defined as tier I capital plus tier II capital divided by risk weighted assets, in percentage), LQD (liquidity is the ratio of liquid assets to total assets, in percentage), RSK (credit risk is measured by the ratio of non-performing loans to total loans, in percentage) GDP (gross domestic product is the rate of annual change in real gross domestic product, in percentage) and INF (inflation defined as rise in general price level of goods and services in an economy,in percentage).

Table No. 2

Variables	Minimum	Maximum	Mean	Std. Deviation
ROA	0.03	18.04	2.03	1.86
ROE	-35.30	47.87	17.84	9.98
CAR	7.10	11.08	9.09	9.67
LIQ	0.85	75.43	12.98	8.76
RISK	0.03	4.03	0.61	0.59
SIZE	31.98	132.57	43.34	27.21
GDP	0.60	6.32	4.14	1.65
INF	4.50	12.30	8.90	2.03

Correlation analysis

Having indicated the descriptive statistics, Pearson's correlation coefficients are computed and the results are presented in Table 3. More specifically, it shows the correlation coefficients of dependent and independent variables for selected Nepalese commercial banks.

Table 3: Pearson's correlation coefficients matrix

This table shows the bivariate Pearson's correlation coefficients of dependent and independent variables of commercial banks for the study period of 2008/09 to 2016/17. The dependent variables are ROA (return on asset is the ratio of net profit to total assets, in percentage) and ROE (return on equity is the ratio of net profit to total shareholders' equity, in percentage). The independent variables are BS (bank size is the total assets of the bank, Rupees in Billion), CAR (capital adequacy ratio is defined as tier I capital plus tier II capital divided by risk weighted assets, in percentage), LQD (liquidity is the ratio of liquid assets to total assets, in percentage), RSK (credit risk is measured by the ratio of non-performing loans to total loans, in percentage) GDP (gross domestic product is the rate of annual change in real gross domestic product, in percentage) and INF (inflation defined as rise in general price level of goods and services in an economy,in percentage).

Table No. 3

VARIABLES	ROA	ROE	CAR	LQD	RISK	SIZE	GDP	INF
ROA	1							
ROE	-0.036	1						
CAR	0.059	0.039	1					
LQD	-0.155	0.157	-0.115	1				
RISK	-0.328**	-0.210	-0.029	0.067	1			
SIZE	0.099	0.344**	0.021	0.226*	-0.087	1		
GDP	0.060	0.036	0.077	-0.101	-0.049	-0.086	1	
INF	-0.072	0.055	-0.084	-0.182*	0.027	-0.442**	-0.302**	1

Notes: The asterisk signs (**) and (*) indicate that the results are significant at 1 percent and 5 percent level respectively.

The result shows that capital adequacy ratio has a positive relationship with return on assets. It indicates that higher the capital adequacy ratio, higher would be the return on assets. Similarly, bank size has a positive relationship with return on assets. It indicates that the larger the bank size in term of assets, higher would be the return on assets. However, liquidity ratio has a negative relationship with return on assets. It reveals that the higher the liquidity ratio, lower would be the return on assets. Likewise, credit risk has a negative relationship with return on assets. It indicates that higher the credit risk, lower would be the return on assets. Similarly, gross domestic product has a positive relationship with return on assets. It means that higher the gross domestic product, higher would be the return on assets. The result also shows that inflation has a negative relationship with return on assets. It reveals that higher the inflation, lower would be the return on assets.

Similarly, the result also shows that capital adequacy ratio has a positive relationship with return on equity. It indicates that higher the capital adequacy ratio, higher would be the return on equity. Similarly, bank size has a positive relationship with return on equity. It indicates that the larger the bank size in term of assets, higher would be the return on equity. However, liquidity ratio has a positive relationship with return on equity. It reveals that the higher the liquidity ratio, higher would be the return on equity. Likewise, credit risk has a negative relationship with return on equity. It indicates that higher the credit risk, lower would be the return on equity. Similarly, gross domestic product has a positive relationship with return on equity. It means that higher the gross domestic product, higher would be the return on equity. The result also shows that inflation has a positive relationship with return on equity. It reveals that higher the inflation, higher would be the return on equity.

Regression analysis

Having examined the Pearson'scorrelation coefficients, the regression analysis has been carried out and the results are presented in Table 4. More specifically, the estimated regression results of capital adeqacy ratio, liquidity ratio, credit risk, bank size, gross domestic product and inflation on return on assets of selected Nepalese commercial banks.

Table 4: Estimated regression results of capital adequacy ratio, liquidity ratio, credit risk, bank size, gross domestic product and inflation with return on assets

These results are based on panel data of 14 commercial banks with 126 observations for the period of 2008/09 to 2016/17 by using linear regression model. The model is ROA= β_0+ β_1 BS+ β_2 CAR + β_3 LIQ+ β_4 RISK + β_5 GDP + β_6 INF+ ε, where the dependent variable is ROA (return on asset is the ratio of net profit to total assets, in percentage). The independent variables are BS (bank size is the total assets of the bank, Rupees in Billion), CAR (capital adequacy ratio is defined as tier I capital plus tier II capital divided by risk weighted assets, in percentage), LQD (liquidity is the ratio of liquid assets to total assets, in percentage), RSK (credit risk is measured by the ratio of non-performing loans to total loans, in percentage) GDP (gross domestic product is the rate of annual change in real gross domestic product, in percentage) and INF (inflation defined as rise in general price level of goods and services in an economy,in percentage).

Table No. 4

Model	*Intercept*	*Regression coefficient of*						*Adjusted R_bar²*	*SEE*	*F-value*
		CAR	*LIQ*	*RISK*	*SIZE*	*GDP*	*INF*			
1	*2.054 (12.096)***	*0.301 (2.658)***						*0.093*	*1.864*	*6.432*
2	*1.603 (5.44)***		*-0.133 (1.981)*					*0.076*	*1.845*	*4.065*
3	*1.398 (6.152)***			*-1.031 (3.861)***				*0.218*	*1.765*	*14.905*

4	2.325 (7.443)**				-0.007 (1.109)			0.052	1.858	1.231
5	1.749 (3.894)**					0.068 (0.675)		0.004	1.864	0.455
6	1.447 (1.931)						-0.066 (0.800)	0.005	1.863	0.640
7	0.591 (1.115)		-0.030 (1.685)	-1.014 (3.814)**		0.102 (1.071)		0.112	1.753	6.257
8	-0.789 (0.743)		-0.037 (1.988)*	-1.003 (3.791)**		0.151 (1.506)	-0.125 (1.497)	0.121	1.744	5.310
9	-0.37 (0.288)		-0.038 (2.037)*	-0.998 (3.701)**	-0.004 (0.544)	0.138 (1.327)	-0.111 (1.066)	0.116	1.749	4.275
10	-0.327 (0.241)	0.234 (2.144)*	-0.038 (1.985)*	-0.987 (3.679)**	-0.004 (0.552)	0.136 (1.285)	-0.981 (1.203)	0.139	1.756	3.537

Notes:

1. *Figures in parentheses are t-values.*
2. *The asterisk (**) and (*) sign indicates that the results are significant at 1 and 5 percent level of significance respectively.*
3. *Dependent variable is return on assets.*

Table 4 shows that beta coefficients for bank size are positive with return on assets. It indicates that bank size has a positive impact on return on assets. This finding is consistent with the findings of Sufian and Habibullah (2009). However, the beta coefficients for credit risk are negative with return on assets. It states that credit risk has a positive impact on return on assets. This finding is similar to the findings of Jiménez *et al*. (2014). Additionally, the beta coefficients for liquidity are negative with return on assets. It indicates that liquidity has a negative impact on return on assets. The result is similar to the findings of Molyneux and Thorton (1992). Similarly, the beta coefficients for gross domestic product are also positive with return on assets. It indicates that gross domestic product has a positive impact on return on assets. The result is similar to the findings of the Azam and Siddhiqui (2012).The beta coefficients for bank size and capital adequacy ratio are significant at 1 percent level of significance. The results also show that the beta coefficients for liquidity are significant at 5 percent level of significance.

Similarly, estimated regression results of capital adequacy ratio, liquidity ratio, credit risk, bank size, gross domestic product and inflation on return on equity of Nepalese commercial banks are presented in Table 5

Table 5: Estimated regression results of capital adequacy ratio, liquidity ratio, credit risk, bank size, gross domestic product and inflation with return on equity

This result is based on panel data of 14 commercial banks with 126 observations for the period of 2008/09 to 2016/17 by using linear regression model. The model is ROE= β_0+ β_1 BS+ β_2 CAR + β_3 LIQ+ β_4 RISK + β_5 GDP + β_6 INF+ ε, where the dependent variable is ROE (return on equity is the ratio of net profit to total shareholders' equity, in percentage).The independent *variables are BS (bank size is the total assets of the bank, Rupees in Billion), CAR (capital adequacy ratio is defined as tier I capital plus tier II capital divided by risk weighted assets, in percentage), LQD (liquidity is the ratio of liquid assets to total assets, in percentage), RSK (credit risk is measured by the ratio of non-performing loans to total loans, in percentage) GDP (gross domestic product is the rate of annual change in real gross domestic product, in percentage) and INF (inflation defined as rise in general price level of goods and services in an economy,in percentage).*

Table No. 5

Model	Intercept	Regression coefficient of						Adjusted R_bar^2	SEE	F-value
		CAR	LIQ	RISK	SIZE	GDP	INF			
1	17.924 (19.651)**	0.004 (0.436)						0.002	10.014	0.19
2	15.52 (9.819)**		0.179 (1.769)*					0.117	9.897	13.131
3	20.015 (15.865)**			-3.537 (2.387)*				0.136	9.799	15.698
4	12.371 (7.823)**				0.126 (4.079)**			0.191	9.41	26.638
5	18.732 (7.761)**					0.216 (0.398)		0.001	10.015	0.158
6	15.43 (3.835)**						0.271 (0.614)	0.003	10.006	0.377
7	1.506 (0.306)			-3.01 (2.212)*	0.016 (4.88)**		1.254 (2.831)**	0.184	9.018	10.373
8	-0.393 (0.078)		0.141 (1.488)	-3.187 (2.313)*	0.153 (4.577)**		1.316 (2.972)**	0.192	8.974	18.411
9	-5.546 (0.81)		0.155 (1.623)	-3.098 (2.265)*	0.163 (4.726)**	0.615 (1.155)	1.534 (3.19)**	0.194	8.961	17.014
10	-5.809 (0.837)	0.002 (0.183)	0.158 (1.626)	-3.091 (2.251)*	0.163 (4.707)**	0.629 (1.164)	1.549 (3.164)**	0.187	8.998	15.803

Notes:

1. *Figures in parentheses are t-values.*
2. *The asterisk (**) and (*) sign indicates that the results are significant at 1 and 5 percent level of significance respectively.*
3. *Dependent variable is return on equity.*

Table 5 shows that beta coefficients for bank size are positive with return on equity. It indicates that bank size has a positive impact on return on equity. This finding is consistent with the findings of Jonsson (2008). However, the beta coefficients for credit risk are negative with return on equity. It states that credit risk has a positive impact on return on equity. This finding is similar to the findings of Syahru (2006). The result also shows that the beta coefficients for liquidity are positive with return on equity. It indicates that liquidity has a positive impact on return on equity. The result is similar to the findings of Bourke (1989). Similarly, the beta coefficients for gross domestic product are also positive with return on equity. It indicates that gross domestic product has a positive impact on return on equity. The result is similar to the findings of the Goddard *et al*. (2004).The beta coefficients for bank sizes are significant at 1 percent level of significance. The results also show that the beta coefficients for liquidity and credit risk are significant at 5 percent level of significance.

4. Summary and conclusion

The financial performance of commercial banks is a subject that has a lot of attention, comments and interests from the view point of general public and management of banks. The financial performance of a firm can be analyzed in terms of profitability, dividend growth, sales turnover, asset base, capital employed among others. However, there is still debate among disciplines regarding how the performance of firms should be measured and the factors that affect financial performance.

This study attempts to examine the impact of internal and external factors on the profitability of Nepalese commercial banks. The study is based on secondary data of 14 commercial banks with 126 observations for the period 2008/09 to 2016/17.

The study shows that capital adequacy ratio, bank size and gross domestic product have positive impact on return on assets. Similarly, the study shows thatcapital adequacy ratio, liquidity ratio, bank size, gross domestic product and inflation have positive impact on return on equity. Similarly, the study also shows that liquidity ratio, credit risk and inflation have negative impact on return on assets. The study concludes that bank specific and macroeconomic variables have significant impact on the financial performance of Nepalese commercial banks. The study also concludes that credit risk followed by bank size and capital adequacy ratio is the most influencing factor that explains the changes in financial performance of Nepalese commercial banks.

References

Abduh, M., and Y. Idrees (2013). Determinants of Islamic banking profitability in Malaysia. *Australian Journal of Basic Applied Sciences*, 7(2), 204-210.

Aburime, T. (2009). Determinants of bank profitability. *International Journal of Nigerian Studies and Development, 14*(6), 21-34.

Alper, D., and A. Anbar (2011). Bank specific and macroeconomic determinants of commercial bank profitability: empirical evidence from Turkey. *Business and Economics Research Journal, 2*(2), 139-152.

Azam, M., and S.Siddiqoui (2012). Domestic and foreign banks' profitability: differences and their determinants. *International Journal of Economics and Financial Issues,* 2(1), 33-40.

Bikker, J. A., and H. Hu (2002). Cyclical patterns in profits, provisioning and lending of banks and pro-cyclicality of the new Basel capital requirements. *PSL Quarterly Review*, *55*(2), 143-175.

Boahene, S. H., J. Dasah, and S. K. Agyei (2012).Credit risk and profitability of selected banks in Ghana. *Research Journal of Finance and Accounting*, 6(8), 78-101.

Bobakova, I. V. (2003). Factors affecting bank profitability. *Journal of Banking and Finance,* 3(11), 2080-2092.

Bourke, P. (1989). Concentration and other determinants of bank profitability in Europe, North America and Australia. *Journal of Banking and Finance, 13*(1), 65-79.

Boyd, J. H., and D. E. Runkle (1993). Size and performance of banking firms: Testing the predictions of theory. *Journal of Monetary Economics*, *31*(1), 47-67.

Chen, K., and C. Pan (2012). An empirical study of credit risk efficiency of banking industry in Taiwan. *Web Journal of Chinese Management Review*, 15(1), 1-16.

Davydenko Y. J. (2010). Liquidity management, operating performance, and corporate value: evidence from Japan and Taiwan. *Journal of Multinational Financial Management*, *12*(2), 159-169.

Derbali, A. (2017). Systemic risk in the Chinese financial system: Measuring and ranking. *The Chinese Economy,* 50(1), 34-58.

Drakos, K. (2003). Assessing the seccess of reform in transition banking 10 years latter: An interesty margin analysis. *Journal of Policy Modeling,* 25(3), 3009-3017.

Ejoh, N. O., I. B. Okpa, & A. A. Egbe (2014). The impact of credit and liquidity risk management on the profitability of deposit money banks in Nigeria. *International Journal of Economics Commerce and Management*, *2*(9), 1-15.

Eljelly, A. (2004). Liquidity-profitability tradeoff: An empirical investigation in an emerging market. *International Journal of Commerce & Management*, 14(2), 48-61.

Flamini, V., C. McDonald, and L.Schumacher (2009). Determinants of commercial banks profitability in Sub-Saharan Africa. *IMF Working Paper 0130*.

Francis, M. E. (2013). Determinants of commercial bank profitability in Sub-Saharan Africa. *International Journal of Economics and Finance,* 5(9), 303-319.

Guru, B. K., J. Staunton, & B. Balashanmugam (2002). Determinants of commercial bank profitability in Malaysia. *Journal of Money, Credit, and Banking*, *17*(1), 69-82.

Jonsson, B. (2008). Does the size matter? The relationship between size and profitability of Icelandic firms. *Bifrost Journal of Social Science*, 12(1), 43–55.

Kasman, A., G. Tunc, G. Vardar, & B. Okan (2010). Consolidation and commercial bank net interest margins: Evidence from the old and new European Union members and candidate countries. *Economic Modelling*, *27*(3), 648-655.

Kurawa, J. M., and S. Garba (2014). An evaluation of the effect of credit risk management (CRM) on the profitability of Nigerian banks. *Journal of Modern Accounting and Auditing*, *10*(1), 104-*115*.

Makkar, A., & S. Singh (2013). Analysis of the financial performance of Indian commercial banks: A comparative study. *Indian Journal of Finance*, *7*(5), 41-49.

Mamatzakis, E., and P. Remoundos (2003). Determinants of Greek commercial banks, 1989-2000. *Spoudai*, *53*(1), 84-94.

Manandhar, A., A. Kafle, A. Basnet, B. Khanal, and B. Pantha (2015). Determinants of credit risk in Nepalese commercial banks. *Nepalese Journal of Finance*, *2*(1), 1-8.

Molyneux, P., and J. Thornton (1992). Determinants of European bank profitability: A note. *Journal of Banking & Finance*, *16*(6), 1173-1178.

Moussa, M. A. B. (2015). The determinants of bank liquidity: Case of Tunisia. *International Journal of Economics and Financial Issues*, *5*(1), 249-259.

Noman, A. H. M., S. Pervin, M. M. Chowdhury, and H. Banna (2015). The effect of credit risk on the banking profitability: A case on Bangladesh. *Global Journal of Management and Business Resea*, *15*(3), 2249-2258.

Owoputi, J. A., and O. F. Kayade (2012). Determinants of corporate capital structure in Nigeria. *International Journal of Economics and Management Science, 1*(10), 81-91.

Parajuli, K. (2016). Factors influencing the profitability of domestic and foreign commercial banks of Nepal. *Nepalese Journal of Business, 3*(1), 98-114.

Poudel, R. P. S. (2012). The impact of credit risk management on financial performance of commercial banks in Nepal. *International Journal of Arts and Commerce, 1*(5), 9-15.

Pradhan, R. S. (2016). Bank specific and macroeconomic, determinants of bank profitability: A case of Nepal. *Nepalese Journal of Finance, 1*(1), 1-12.

Riaz, S. (2013). Review of literature and theories on determinants of commercial banks profitability. *Journal of Performance Management, 23*(1), 23-49.

Sufian, F. (2010). Financial depression and the profitability of the banking sector of the Republic of Korea: Panel Evidence on bank specific and macroeconomic determinants. *Asia-Pacific Development Journal*, *17*(2), 65-92.

Sufian, F. (2011). Profitability of the Korean banking sector: Panel evidence on bank-specific and macroeconomic determinants. *Journal of Economics and Management,* 7(1), 43-72.

Sufian, F., & M. S. Habibullah (2009). Determinants of bank profitability in a developing economy: Empirical evidence from Bangladesh. *Journal of Business Economics and Management*, *10*(3), 207-217.

Syahru, S. (2006). Analysis Pengaruh Rasio-Rasio Camels Terhadap net interest margin. *International Journal of Economics and Finance*, 40(8), 431–449.

Trujillo Ponce, A. (2013). What determines the profitability of banks? Evidence from Spain. *Accounting & Finance*, *53*(2), 561-586.

Yakubu, I. N. (2016). Bank specific and macroeconomic determinants of commercial bank profitability in Ghana. *Journal of International Finance and Banking, 3*(2), 45-53.

An Empirical Evaluation of Linkages of Behaviour & Commitment of Hotel Staff in Improving Customer Relationship Management (CRM) Practices

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Abstract

The Indian Tourism and Hospitality industry has emerged as one of the key drivers of growth among the services sector in Indian economy. Tourism in India accounts for 7.5 per cent of the GDP and is the third largest foreign exchange earner for the Indian economy. The Tourism and Hospitality sector's direct contribution to GDP in the year 2016was estimated to be US$47 Billion. The direct contribution of Travel and Tourism to GDP [Gross Domestic Product] is expected to grow at 7.2 per cent per annum, during the year 2015 to2025, with the contribution expected to reach figure of US$160.2 Billion by the year 2026(www.ibef.org).Good customer relationships are at the heart of business success. Customer Relationship Management (CRM) practices has relevant and demanding applications in service marketing.An empirical research study using both that is secondary data and the primary data was conducted with its key objective to identify and evaluate CRM practices considering the significant influences of behaviour and commitment of employees referred herewith as the hotel staff of selected hotels in the State of Gujarat.

This researchstudy was based on descriptive research design and the primary data were collected using pretested structured non-disguised questionnaire from amongst 1200 hotel guests who were conveniently drawn from the 51 hotels located in the selected cities viz., Ahmedabad, Surat, Vadodara and Rajkot of the Gujarat State. The results of data analysis and interpretations are provided by applying descriptive statistics and the chi-square test. The Structural Equation Model [SEM] was also developedto study and examine the relationships between behaviour and commitment of hotel staff vis-a-vis post-purchase behaviour of hotel guests.The researchers have provided the findings and implications of this research study aimed at bringing out suitabledesign and modification in the different marketing strategies for building, improving and sustaining Customer Relationship Management practices in the hotel Industry in near future.

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PROLOGUE:

The booming tourism industry has a cascading effect on the hospitality sector with an increase in the occupancy ratios and average room rates (www.equitymaster.com). There is an emergence of budget hotels in India to cater to the majority of the population who seek affordable stay. International companies are also increasingly looking at setting up such hotels (www.equitymaster.com).According to Report of ICRA of the Indian Hotel industry, occupancies in the hotel for Financial Year 2015-2016 was expected to improve by 2 to 4 per cent and revenue per room was estimated to go up by 3 to 5 per cent (www.timesofindia.indiatimes.com).The occupancy rate had grown to 60.3 percent during the year 2014-2015, up from 58.4 per centof the year 2013-2014. India has an estimated totalnumber of 1, 12,384 branded hotel rooms which too was expected to reach figure of 1, 46,485 by the year 2019-2020 (http://economictimes.indiatimes.com).

Customer Relationship Management (CRM) is a management process of acquiring customers by understanding and fulfilling their requirements to retain them in a way that would meet their expectations and also to attract new customers through application of customer specific strategic marketing approaches.The competition among hotels for attracting andretaining customers called as hotel guests is becoming increasingly intense and customers may be less likely to return to same hotel if the hotel staffs failin meeting his or her expectations relative to service quality regardless its price-point. The willingness of the staff and the hotel personnel to help hotel guests, answering their requests, making them understands when and how the hotel services will be delivered, the behaviour of the hotel staffs can make themto trust and feel safe. In addition, the hotel personnel need topossess required ability to timely respond to the questions and queries of hotel guests' in a polite and pleasant manner. The researchers have made an attempt to study the significant influences of behaviour and commitment of hotel staff of selected hotels from selected cities of the Gujarat State.

REVIEW OF LITERATURE:

The researchers have reviewedearlier research studies that were undertaken by various other researchers mainly on Customer Relationship Management, and behaviour and commitment of hotel staff summarized in brief as follows.

Mummalaneni (1987) had stated that commitment implies as an important variable in discriminating between those who stayed and who left. Zeithaml (1990) had evaluated assurance which is concerning to the knowledge and courtesy of employees, and their ability to convey trust and confidence, and empathy refers to caring, individualized attention provided to customers (Zeithaml, 1990).Moorman (1992) had stated that commitment is an enduring desire to maintain relationship.

Morgan, R. M. and Hunt, S. D (1994) had shard that commitment focuses on long lasting desire of parties to maintain a relationship. It becomes relevant to the services due to the need for customer participation in the delivery process. Like satisfactory complaint handling and trust, it is also positively related to customer commitment.

Michael D. Hartline and O. C. Ferrell (1996) had revealed that managers need to increase employees' self-efficacy and job satisfaction for improving customers' perceptions of service quality (Michael D. Hartline and O. C. Ferrell, 1996).Blank son and Kalafatis (1999) had suggested that service brands and service characteristics are dissimilar to physical goods and depends on employees’ actions and attitudes.Tan, Yen, & Fang (2002) had found that CRM tends to be a business strategy where its main aim is to select and manage customers to optimize long term value requiring a customer focused business idea and a culture to sustain effective marketing sales and service process. Kincaid (2002) had provided a road map that CRM focuses on the strategic use of information, processes, technology and people to administer relationship with the customer’s in an organization across the whole customer life cycle.Peter C. Verhoef (2003) had revealed that the affective commitment and loyalty programs that provided economic incentives had positively affected both to that is the customer retention and customer share development whereas direct mailings had influenced customer share development. (Peter C. Verhoef, 2003). G Shainesh and Ramneesh Mohan (2003) had conducted research study among managers of Hospitality, Telecom, And Financial Services to understand the CRM practices and programs adopted by them. They had addressed few issues viz., quality and customer centric processes, employee empowerment, technology selection, customer knowledge strategies, and individualization of market programs respectively (G Shainesh and Ramneesh Mohan, 2003). Ruth Taylor and Doug Davies (2004) had recognized that working staff training and compensation in an organization provides an exclusive and differentiating standard of service in industry, which results to the increase in profits to service providers. The researchers had examined the strategies to train staff. Mario Castellanos-Verdugo, Nadine Veerapermal (2009) had suggested an extensive variety of actions that hotel managers need to perform in order to develop and maintain quality of employee & customer relationships. The researcher had offered useful variables for hotel managers in presenting a relationship marketing strategy in their hotels, irrespective of its category (Mario Castellanos-Verdugo).

CRM is aimed at providing optimal value to customers through the way they are communicated, marketed goods and services by the way of traditional means of product, price, promotion and place of distribution. Now, as customers have become increasingly demanding and their buying decisions go beyond price and product, their buying decisions are guarded by the overall experience in buying of goods and or services which includes process, physical evidence and interactions with people in an organization. Therefore, CRM is one of the main competitive advantages that companies can implement in order to prevent transferring customer to other companies, and thus to retain them (Melinda Nykamp, 2012).

RESEARCH METHODOLOGY:

The keyobjective of this research study was as to identify and evaluate CRM practices considering the significant influences of behaviour and commitment of employees called as the hotel staff of selected hotels in the Gujarat State.

This empirical research study based on descriptive research design was undertaken mainly with the help of the collection of the primary data that were collected using pretested structured non-disguised questionnaire.In all, the primary data were collected from total number of 1200 hotel guests that is customers who were conveniently drawn from the total number 51 hotels located in the selected cities viz., Ahmedabad, Surat, Vadodara and Rajkot of the Gujarat State. The representative sampling unit that is customer referred herewith in this study as hotel guests henceforth was those individuals who had stayed and availed hotel services. The data analysis and interpretations was undertaken by applying descriptive statistics, the chi-square test and with the help of the Structural Equation Model [SEM] that was essentially developed to study and examine the relationships between behaviour and commitment of hotel staff vis-a-vis post-purchase behaviour of hotel guests.

Reliability of the Structured Non-Disguised Questionnaire:

The reliability tests were run and composite score was computed to determine how strongly experience of selected as hotel guests' who had stayed and availed hotel services on selected criteria, and the Cronbach's alpha ranged from 0.726 to 0.967 that had shown internal reliability of the scale**[Please Refer Table Number-01].**

Table Number: 01: Summary of Indicators (Experience) and Reliability Alpha Score

Sr. No.	Grouped Indicator Items	Cronbach's Reliability Alpha Coefficient
01	Behaviour of Hotel Staff	0.967
02	Commitment of Hotel Staff	0.726

Source: Fieldwork

DATA ANALYSIS & INTERPRETATION:

The analysis of primary data collected from the hotel guests in the selected cities of Gujarat State revealed following:

Profile of Selected Hotel Guests' in the State of Gujarat:

The overall profile of selected hotel guests' considering their selected demographic variables viz., Age; Educational Qualifications; Marital Status, and Gender revealed that more than half of the hotel guests were found as belonging to the age group of 26 to 45 years.Overall, and City wise, male hotel guests' were found to be around 80 percent and 45 percent of them were found as unmarried. Maximum number of them was found as belonging to occupation category of "Profession" followed with "Service", and thereafter "Businessman/Women" and "Self-employed" categories respectively. Maximum of them were also found as professionally qualified followed with Post-Graduation as their educational qualifications.**[Please Refer Table Number-02].**

Table Number: 02: Profile of Selected Hotel Guests' in the State of Gujarat

Sr. No.	Selected Background Variables of Hotel Guests		Number and Percentages ofSelected Hotel Guests				
			Baroda	Ahmedabad	Surat	Rajkot	Total
01	Gender	Males	234(77.7)	367(81.7)	155(77.5)	193(77.2)	**949**(79.1)
		Females	67(22.3)	82(18.3)	45(22.5)	57(22.8)	**251**(20.9)
		Total	301(100)	449(100)	200(100)	250(100)	**1200**(100)
02	Marital Status	Un-Married	128(42.5)	173(38.5)	95(47.5)	143(57.2)	**539**(44.9)
		Married	173(57.5)	276(61.5)	105(52.5)	107(42.8)	**661**(55.1)
		Total	**301**(100)	**449**(100)	**200**(100)	**250**(100)	**1200**(100)
03	Age Group	**Below 25 years**	40 (13.3)	67(14.9)	24(12.0)	42(16.8)	**173**(14.4)
		26 to 35 years	89(29.6)	154(34.3)	94(47.0)	114(45.6)	**451**(37.6)
		36 to 45 years	90 (29.9)	105(23.4)	43 (21.5)	46 (18.4)	**284**(23.7)
		Above 46 years	82 (27.2)	123(27.4)	39 19.5)	48 (19.2)	**292**(24.3)
		Total	**301(100)**	**449(100)**	**200(100)**	**250(100)**	**1200(100)**
04	Educational Qualifications	**Less than Graduate**	4(1.3)	6(1.3)	3(1.5)	5(2.0)	18(1.5)
		Graduate	69(22.9)	90(20.0)	52(26.0)	37(14.8)	248(20.7)
		Post-Graduate	110(36.5)	157(35.0)	72(36.0)	112(44.8)	451(37.6)
		Professional Qualifications	113(37.5)	180(40.1)	70(35.0)	91(36.4)	454(37.8)
		Diploma	3(1.0)	3(.7)	0(.0)	0(.0)	6(.5)
		Others	2(.7)	13(2.9)	3(1.5)	59(2.0**)**	23(1.9)
		Total	**301**(100)	**301**(100)	**449**(100)	**200**(100)	**1200 (100)**
05	Occupation	**Housewives**	0(.0)	11(2.4)	3(0.015)	5(2.0)	**19**(1.6)
		Student	4(1.3)	6(1.3)	3(0.015)	5(2.0)	**18**(1.5)
		Businessman/Women	65(21.6)	124(27.6)	41(0.215)	51(20.4)	**281**(23.4)
		Self-employed	63(20.9)	72(16.0)	34(0.215)	48(19.2)	**217**(18.1)
		Service	84(27.9)	97(21.6)	75(0.415)	69(27.6)	**325**(27.1)
		Professional	85(28.2)	136(30.3)	44(0.215)	72(28.8)	**337**(28.1)
		Others	0(.0)	3(.7)	0(0.015)	0(.0)	**3**(.3)
		Total	**301**(100)	**301**(100)	**200**(100)	**250**(100)	**1200**(100)

Source: Fieldwork

Selected Hotel Guests' Overall Expectations on Behavior of Selected Hotel Staff:

The researchers had sought responses of selected hotel guests' on their perceived importance reflective of his or her 'Expectations' on behaviour of staff in the hotel.

Overall, it was found that most of the selected items concerning behaviour of hotel staff in the hotel viz; tries to understand customers' needs; friendly towards the hotel guest; behaves politely; is well dressed; honest; competent in providing service; attends complaints politely, and courteous were rated by 90 to 95 percent hotel guests as most important. The mixed results were found in most of the selected items in each of the cities of the Gujarat State. Overall, it was found that, the most important item for the hotel guests' were to understand customers' needs and friendliness towards hotel guests **[Please Refer Table Number-03].**

Table Number: 03: Selected Hotel Guests' Responses on Behaviour of Hotel Staff

Sr. No.	Selected Items	Number and Percentages of Selected Hotel Guests									
		Baroda		Ahmedabad		Surat		Rajkot		Total	
		UI	IM	UI	IM	UI	IM	UI	IM	UI	IM
01	Is well Dressed	25 (8.3)	276 (91.7)	30 (6.7)	419 (93.3)	14 (7.0)	186 (93.0)	23 (9.2)	227 (90.8)	92 (7.7)	1108 (92.3)
02	Sincere	34 (11.3)	267 (88.7)	48 (10.7)	401 (89.3)	27 (13.5)	173 (86.5)	29 (11.6)	221 (88.4)	138 (11.5)	1062 (88.5)
03	Reliable	42 (14.0)	259 (86.0)	55 (12.2)	394 (87.8)	18 (9.0)	182 (91.0)	35 (14.0)	215 (86.0)	150 (12.5)	1050 (87.5)
04	Honest	31 (10.3)	270 (89.7)	31 (6.9)	418 (93.1)	17 (8.5)	183 (91.5)	19 (7.6)	231 (92.4)	98 (8.2)	1102 (91.8)
05	Courteous	27 (9.0)	274 (91.0)	49 (10.9)	400 (89.1)	17 (8.5)	183 (91.5)	25 (10.0)	225 (90.0)	118 (9.8)	1082 (90.2)
06	Friendly towards the Guest	25 (8.3)	276 (91.7)	25 (5.6)	424 (94.4)	9 (4.5)	191 (95.5)	15 (6.0)	235 (94.0)	74 (6.2)	1126 (93.8)
07	Knowledgeable	38 (12.6)	263 (87.4)	44 (9.8)	405 (90.2)	26 (13.0)	174 (87.0)	14 (5.6)	236 (94.4)	122 (10.2)	1078 (89.8)
08	Competent in providing Service	43 (14.3)	258 (85.7)	23 (5.1)	426 (94.9)	17 (8.5)	183 (91.5)	28 (11.2)	222 (88.8)	111 (9.3)	1089 (90.8)
09	Tries to understand Customers' needs	13 (4.3)	288 (95.7)	19 (4.2)	430 (95.8)	14 (7.0)	186 (93.0)	13 (5.2)	237 (94.8)	59 (4.9)	1141 (95.1)
10	Pays Special attention to each Guest	38 (12.6)	263 (87.4)	49 (10.9)	400 (89.1)	32 (16.0)	168 (84.0)	31 (12.4)	219 (87.6)	150 (12.5)	1050 (87.5)
11	Behaves Politely	28	273	20	429	25	175	20	230	93	1107

		(9.3)	(90.7)	(4.5)	(95.5)	(12.5)	(87.5)	(8.0)	(92.0)	(7.8)	(92.3)
12	Attends Complaints Politely	32	269	35	414	21	179	24	226	112	1088
		(10.6)	(89.4)	(7.8)	(92.2)	(10.5)	(89.5)	(9.6)	(90.4)	(9.3)	(90.7)
13	Responds to InquiryQuickly	52	249	58	391	30	170	33	217	173	1027
		(17.3)	(82.7)	(12.9)	(87.1)	(15.0)	(85.0)	(13.2)	(86.8)	(14.4)	(85.6)
14	Resolves Complaint Quickly	25	276	52	397	26	174	21	229	124	1076
		(8.3)	(91.7)	(11.6)	(88.4)	(13.0)	(87.0)	(8.4)	(91.6)	(10.3)	(89.7)
15	Handles problem effectively	37	264	81	368	30	170	31	219	179	1021
		(12.3)	(87.7)	(18.0)	(82.0)	(15.0)	(85.0)	(12.4)	(87.6)	(14.9)	(85.1)
16	Behaves well with all Customers' in Hotel	28	273	33	416	28	172	22	228	111	1089
		(9.3)	(90.7)	(7.3)	(92.7)	(14.0)	(86.0)	(8.8)	(91.2)	(9.3)	(90.8)

Source: Fieldwork [UI = Unimportant and IM = Important]

The overall results of the data analysis considering the expectations of the selected hotel guests'on selected itemsof commitment of the hotel staff of the Gujarat Statefound that in most of the selected items concerning 'Commitment in the hotel' viz; hotel promises to update about upcoming schemes; hotel promises to update about ongoing schemes, and hotel promises to update about new events in hotel were rated by 72 to 82 percent respondents as most important. The research study observed similar trend in Baroda and Ahmedabad Cities, and different trend in Surat and Rajkot Cities in each of the selected items. It was found that out of three item for commitment of the hotel staff in the hotel, overall the most important item for the hotel guests' of all the selected cities was making hotel guests aware about upcoming schemes**[Please Refer Table Number-04].**

Table Number: 04: Selected Hotel Guests' Responses on Commitment of Hotel Staff

Sr. No.	Selected Items	Number and Percentages of Selected Hotel Guests				
		Baroda	Ahmedabad	Surat	Rajkot	Total

		UI	IM	UI	IM	UI	IM	UI	IM	UI	IM
01	Update about New Events in Hotel	96 (31.9)	205 (68.1)	130 (29.0)	319 (71.0)	51 (25.5)	149 (74.5)	53 (21.2)	197 (78.8)	330 (27.5)	870 (72.5)
02	Update about ongoing Schemes	70 (23.3)	231 (76.7)	80 (17.8)	369 (82.2)	32 (16.0)	168 (84.0)	36 (14.4)	214 (85.6)	218 (18.2)	982 (81.8)
03	Update about Upcoming Schemes	66 (21.9)	235 (78.1)	71 (15.8)	378 (84.2)	38 (19.0)	162 (81.0)	38 (15.2)	212 (84.8)	213 (17.8)	987 (82.3)

Source: Fieldwork [UI = Unimportant and IM = Important]

Selected Hotel Guests' Satisfaction/Dissatisfaction on Behaviour of Hotel Staff:

The results of the research study considering the satisfaction/dissatisfaction of the selected hotel guests' on behavior of selected hotel staff of the Gujarat State revealed 85 to 90 percent of hotel guests' had shown dissatisfaction with most of the selected items viz; friendly towards the hotel guests; reliable; behaves politely; sincere; tries to understand hotel guests' needs; is well dressed; behaves well with all hotel guests' in hotel, competent in providing service, and is available when required. The researchers had found mixed results in almost all the selected cities in most of the selected items. The highest dissatisfaction was experienced on friendliness towards the hotel guests in all the selected cities of the Gujarat State**[Please Refer Table Number-05].**

Table Number: 05: Selected Hotel Guests' Satisfaction/Dissatisfaction on Behaviour of Hotel Staff

Sr. No.	Selected Items	Number and Percentages of Selected Hotel Guests									
		Baroda		Ahmedabad		Surat		Rajkot		Total	
		S	DS	S	DS	S	DS	S	DS	S	DS
01	Is well Dressed	54 (17.9)	247 (82.1)	48 (10.7)	401 (89.3)	21 (10.5)	179 (89.5)	44 (17.6)	206 (82.4)	167 (13.9)	1033 (86.1)
02	Sincere	46 (15.3)	255 (84.7)	54 (12.0)	395 (88.0)	28 (14.0)	172 (86.0)	34 (13.6)	216 (86.4)	162 (13.5)	1038 (86.5)
03	Reliable	43 (14.3)	258 (85.7)	51 (11.4)	398 (88.6)	27 (13.5)	173 (86.5)	28 (11.2)	222 (88.8)	149 (12.4)	1051 (87.6)
04	Honest	57	244	62	387	33	167	35	215	187	1013

		(18.9)	(81.1)	(13.8)	(86.2)	(16.5)	(83.5)	(14.0)	(86.0)	(15.6)	(84.4)
05	Courteous	57 (18.9)	244 (81.1)	66 (14.7)	383 (85.3)	30 (15.0)	170 (85.0)	32 (12.8)	218 (87.2)	185 (15.4)	1015 (84.6)
06	Friendly	32 (10.6)	269 (89.4)	34 (7.6)	415 (92.4)	23 (11.5)	177 (88.5)	21 (8.4)	229 (91.6)	110 (9.2)	1090 (90.8)
07	Knowledgeable	66 (21.9)	235 (78.1)	76 (16.9)	373 (83.1)	33 (16.5)	167 (83.5)	27 (10.8)	223 (89.2)	202 (16.8)	998 (83.2)
08	Good service provider	60 (19.9)	241 (80.1)	38 (8.5)	411 (91.5)	31 (15.5)	169 (84.5)	44 (17.6)	206 (82.4)	173 (14.4)	1027 (85.6)
09	Understand Customers' needs	60 (19.9)	241 (80.1)	50 (11.1)	399 (88.9)	29 (14.5)	171 (85.5)	26 (10.4)	224 (89.6)	165 (13.8)	1035 (86.3)
10	Pays Special attention	66 (21.9)	235 (78.1)	67 (14.9)	382 (85.1)	37 (18.5)	163 (81.5)	36 (14.4)	214 (85.6)	206 (17.2)	994 (82.8)
11	Behaves Politely	53 (17.6)	248 (82.4)	50 (11.1)	399 (88.9)	26 (13.0)	174 (87.0)	29 (11.6)	221 (88.4)	158 (13.2)	1042 (86.8)
12	Attends Complaints	68 (22.6)	233 (77.4)	78 (17.4)	371 (82.6)	32 (16.0)	168 (84.0)	40 (16.0)	210 (84.0)	218 (18.2)	982 (81.8)
13	Responds to Inquiry	73 (24.3)	228 (75.7)	76 (16.9)	373 (83.1)	28 (14.0)	172 (86.0)	32 (12.8)	218 (87.2)	209 (17.4)	991 (82.6)
14	Resolves Complaint	88 (29.2)	213 (70.8)	103 (22.9)	346 (77.1)	44 (22.0)	156 (78.0)	56 (22.4)	194 (77.6)	291 (24.3)	909 (75.8)
15	Handles problem	92 (30.6)	209 (69.4)	121 (26.9)	328 (73.1)	41 (20.5)	159 (79.5)	63 (25.2)	187 (74.8)	317 (26.4)	883 (73.6)
16	Well behaved	57 (18.9)	244 (81.1)	57 (12.7)	392 (87.3)	23 (11.5)	177 (88.5)	35 (14.0)	215 (86.0)	172 (14.3)	1028 (85.7)
17	24 hrs available	50 (16.6)	251 (83.4)	44 (9.8)	405 (90.2)	31 (15.5)	169 (84.5)	51 (20.4)	199 (79.6)	176 (14.7)	1024 (85.3)

Source: Fieldwork

The overall results of the research study considering the satisfaction/dissatisfaction of the selected hotel guests' on selected itemsconcerning behavior of selected hotel staff in the Gujarat State mainly revealed that more than 35 percent of hotel guests' had expressed dissatisfaction with the selected items concerning hotel promises to update about ongoing schemes. The research study had revealed similar trend in almost all the selected cities except in the Baroda City where mixed results were found in most of the items. The highest dissatisfaction was experienced by the hotel guests' in case of the selected cities in case of criteria viz., hotel promises to update guests about ongoing schemes followed by hotel promises to update hotel guests about new events in hotel**[Please Refer Table Number- 06].**

Table Number: 06: Selected Hotel Guests' Satisfaction/Dissatisfaction on Commitment of Hotel Staff

Sr. No	Selected Items	Number and Percentages of Selected Hotel Guests									
		Baroda		Ahmedabad		Surat		Rajkot		Total	
		S	DS	S	DS	S	DS	S	DS	S	DS
01	Update New Events in Hotel	195 (64.8)	106 (35.2)	341 (75.9)	108 (24.1)	144 (72.0)	56 (28.0)	169 (67.6)	81 (32.4)	849 (70.8)	351 (29.3)
02	Update ongoing Schemes	189 (62.8)	112 (37.2)	296 (65.9)	153 (34.1)	129 (64.5)	71 (35.5)	162 (64.8)	88 (35.2)	776 (64.7)	424 (35.3)
03	Update Upcoming Schemes	192 (63.8)	109 (36.2)	341 (75.9)	108 (24.1)	148 (74.0)	52 (26.0)	174 (69.6)	76 (30.4)	855 (71.3)	345 (28.8)

FINDINGS & IMPLICATIONS OF THE RESEARCH STUDY:

In order to test following hypotheses, the Chi-Square test was applied by the researchers as follows.

Hypothesis: 01:

H$_O$: 01: The actual expectation of selected hotel guests' on "Behaviour of the Hotel Staff" vis-a-vis selected hotel guests' background variables viz., Age; Gender; Marital Status; Occupation; Educational Qualifications and Income is independent.

Table Number: 07: Selected Hotel Guests' Actual Expectation on "Behaviour of Hotel Staff" Vis-À-Vis Selected Background Variables of Hotel Guests

Sr. No.	Selected Items	'P' Value of X^2					
		Age	Gender	Marital Status	Occupation	Educational Qualifications	Income

01	Is well dressed	S(.000)	S(.003)	S(.000)	S(.007)	NS(.286)	S(.000)
02	Sincere	S(.000)	S(.028)	S(.029)	S(.000)	S(.000)	S(.000)
03	Reliable	NS(.914)	NS(.729)	S(.000)	S(.000)	S(.001)	S(.000)
04	Honest	S(.002)	S(.014)	NS(.669)	S(.000)	S(.000)	S(.000)
05	Courteous	S(.049)	NS(.176)	S(.000)	S(.000)	S(.000)	S(.000)
06	Friendly towards the guest	S(.001)	NS(.103)	S(.001)	S(.013)	S(.014)	S(.000)
07	Knowledgeable	S(.000)	S(.045)	S(.019)	S(.002)	S(.000)	S(.000)
08	Good service provider	S(.012)	NS(.958)	S(.005)	S(.003)	S(.000)	S(.000)
09	Understand customers' needs	S(.005)	NS(.154)	S(.002)	S(.003)	S(.000)	S(.000)
10	Special attention	S(.005)	NS(.893)	NS(.069)	S(.000)	S(.000)	S(.000)
11	Behaves politely	S(.034)	NS(.082)	S(.000)	S(.000)	S(.000)	S(.000)
12	Attends complaints	NS(.359)	S(.011)	S(.000)	S(.001)	S(.005)	S(.000)
13	Responds to inquiry	S(.001)	S(.002)	S(.000)	S(.000)	S(.000)	S(.000)
14	Resolves complaint	S(.000)	S(.021)	S(.000)	S(.000)	S(.000)	S(.000)
15	Handles problem	S(.000)	NS(.774)	S(.000)	S(.000)	S(.000)	S(.000)
16	Behaves well	S(.000)	NS(.431)	S(.001)	S(.002)	NS(.140)	S(.003)
17	24 hrs available	S(.041)	NS(.854)	S(.000)	S(.044)	NS(.133)	S(.000)

As shown in the table number 07, the selected hotel guests' actual expectation on current CRM practices of the hoteliers on behaviour of hotel staff was found as significantly associated with age in most of the items except in selected item viz., reliable and attends complaints politely.

Gender was not found as significantly associated with actual expectations of selected hotel guests' towards behaviour of hotel staff in selected itemsviz., reliable; courteous; friendly towards the hotel guests; competent in providing service; tries to understand hotel guests' needs; pays special attention to each hotel guest; behaves politely; handles problem effectively; behaves well with all hotel guests' and hotel staff, is available when required. The marital status was found as having association with most of the selected items except two viz., honesty of staff and pays special attention to each hotel guest respectively.

Educational qualifications was found as having no association with selected itemsviz., hotel staff is well dressed; behaves well with all hotel guests' and hotel staff is available when required, and it was found as associated in case of remaining items.

Occupation and Income were found as having significant association with actual expectations of selected hotel guests' on prevalent CRM strategy of hoteliers in the selected cities of Gujarat State on behaviour of hotel staff.

Hypothesis: 02:

H_O: 02: The actual expectation of selected hotel guests' on "Commitment of the Hotel Staff" vis-a-vis selected hotel guests' background variables viz., Age; Gender; Marital Status; Occupation; Educational Qualifications and Income is independent.

Table Number: 08: Selected Hotel Guests' Actual Expectation on "Commitment of Hotel Staff" Vis-À-Vis Selected Background Variables of Hotel Guests

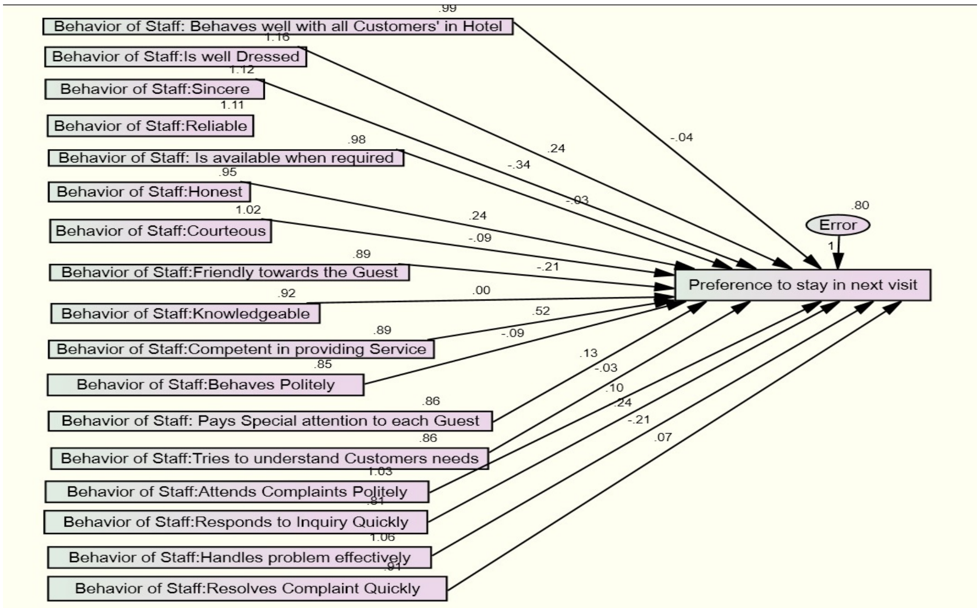
Sr. No.	Selected Items	'P' Value of X^2					
		Age	**Gender**	**Marital Status**	**Occupation**	**Educational Qualifications**	**Income**
01	Update new events in hotel	S(.000)	**NS(.000)**	S(.000)	S(.000)	S(.000)	S(.000)
02	Update ongoing schemes	S(.000)	**NS(.056)**	**NS(.373)**	S(.000)	S(.022)	S(.000)
03	Update upcoming schemes	S(.000)	S(.000)	**NS(.117)**	S(.000)	S(.000)	S(.000)

The results of the research study concerning with overall expectation of the hotel guests' towards commitmentof the hotel staff with regard to 'Gender' background variable of the hotel staff in case of selected items viz., 'hotel promises to update about new events in hotel', and 'hotel promises to update about ongoing schemes' were found as having non-significantwhereas in case of 'Marital Status' also did not made any significant difference in the actual expectations of hotel guests in selected criteria viz., 'hotel promises to update about ongoing schemes', and 'hotel promises to update about upcoming schemes' but it was found as Significant in case of selected item viz., Hotel promises to update about new events in hotel.

STRUCTURAL EQUATION MODELING [SEM] CONSIDERING BEHAVIOUR AND COMMITMENT OF THE HOTEL STAFF:

The researchers have developed Structural Equation Modelling [SEM] considering behaviourof the hotel staffand commitment of the hotel staff of that has been depicted as follows.

Figure No.: 01: Structural Equation Model Showing Relationship between Behaviour of Hotel Staff And Preference of Hotel Guests' to Stay in the Hotel in the Next Visit

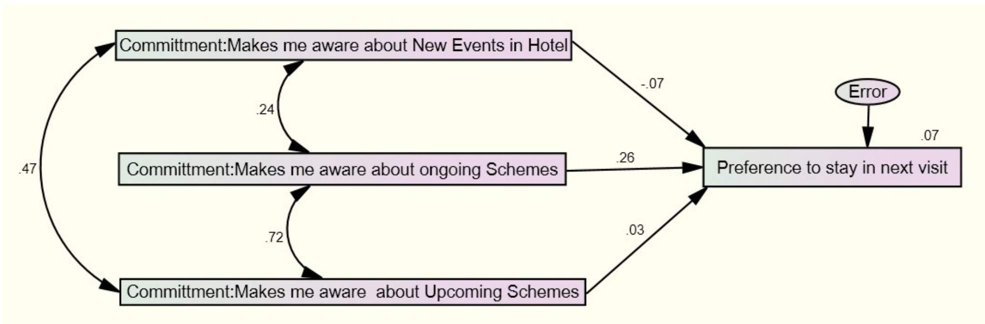


In the Figure Number 01, the simple regression model is displayed in which one observed variable, the preference to stay in next visit is predicted as a linear combination of the other seventeen observed variables related to 'Behaviour of hotel staff' in the hotel viz., hotel staff is well dressed; hotel staff is sincere; hotel staff is reliable; hotel staff is honest; hotel staff is courteous; hotel staff is friendly towards the hotel guests; hotel staff is knowledgeable; hotel staff is competent in providing service; hotel staff tries to understand hotel guests' needs, hotelstaff pays special attention to each hotel guest; hotel staff behaves politely; hotel staff attends complaints politely hotel, hotel staff responds to inquiry quickly; hotel staff resolves complaint quickly; hotel staff handles problem effectively; hotel staff behaves well with all hotel guests' in the hotel, and hotelstaff is available when required respectively.

As with nearly all empirical data, the prediction will not be perfect. There are some other variables other than selected four variables that also assumed to have an effect on preference to stay in next visit for which the model assumes '1' as standardized regression weights which specifies that other variables must have a weight of 1 in the prediction of preference to stay in next visit. The values shown with single sided arrow (0.04, 0.24, 0.34, 0.03, 0.24, 0.09, 0.21, 0.52, 0.09, 0.13, 0.03, 0.10, 0.24, 0.21, and 0.07) are standardized regression weights. The value 0.80 is the squared multiple correlation of preference to stay in next visit, and four variables that affect preference to stay in next visit.

It means that the preference to stay in the next visit considering seventeen variables related with behaviour of hotel staff in the hotels was found as influenced mainly by variable, viz., hotel staff is competent in providing service (0.52); hotel staff is sincere (0.34); hotel staff is well dressed; hotel staff responds to inquiry quickly; hotel staff is honest (0.24); hotel staff handles problem effectively, and the hotel staff is friendly towards the hotel guests (0.21) respectively.

Figure No.: 02: Structural Equation Model Showing Relationship between Commitment of Hotel Staff And Preference of Hotel Guests' to Stay in the Hotel in the Next Visit



In the figure number 02, the simple regression model is displayed in which one observed variable; the preference to stay in next visit is predicted as a linear combination of the other three observed variables related to commitment of hotel staff in hotel. The value shown against two sided arrows (0.72, 0.47, and 0.24) is the correlation between three observed variables. The values shown with single sided arrow (0.26, 0.07, and0.03) are standardized regression weights. The value 0.07 is the squared multiple correlation of preference to stay in next visit, and four variables that affect preference to stay in next visit.

It means that the preference to stay in next visit considering three variables related with commitment of hotel staff in hotels is influenced mainly by variable, viz., hotel staff makes hotel guests' aware about ongoing schemes (0.26); hotel staff makes hotel guests' aware about events in hotel (0.07), and the hotel staff makes hotel guests aware about upcoming schemes (0.03) respectively.

IMPLICATIONS AND RECOMMENDATIONS OF THE RESEARCH STUDY:

Majority of the hotel guests were found in the age group between 35 to 45 years that can offer an opportunity to the hoteliers to make them more loyal as at this age if they become loyal hotel guests, it will go for building and sustaining long term relationships with them.

As some of the hotel guests were also found to be professionally qualified, the hoteliers should keep in mind, if they want to create loyal hotel guests through the experience they give to hotel guest for the first time when they had visited the hotel so behaviour of the hotel staff is a crucial factor for retaining hotel guests.

Maximum number of hotel guests' in the hotel were found as males which is indicative of an opportunity for the hoteliers for attracting female hotel guests as their hotel guest by designing appropriate marketing strategies. Accordingly, the hotel staff needs to behave differently with male and female hotel guestsand the recruitment process also need be modified and standardized.

The communication among various departments at the weekly meetings should adequately represent the views and concerns of the front-line staff. The hotel staff should customize the experience of a hotel guest on a one to one basis by serving food to the hotel guest as per his or her need, as each hotelguest places orders for food with certain expectations, thus the kitchen staff should put efforts to make his or her experience memorable.

The hotel staff of the restaurant should be trained to attend confused, new and regular hotelguest as each hotelguest requires special and personal attention. In case if hotelguest is new and is confused in ordering food then restaurant staff should help them.

Sometimes hotel guests preferto receive service from the same hotel personnel, if not present may switch to some other service provider. It would be true to state that an employee that is the hotel staff do not leave organizations, they leave managers. Supervisors and managers at times found not treating front-line employees with respect. They do not allow them to grow personally and professionally, or provide them with feedback for better work and incentives to keep them happy, as a result employees that is the hotel staff leavehotel. To prevent such problems, the hotel needs to examine their policies to ensure that they are updated and competitive in the hotel industry.

The researchers have also found variations in expectations amongst selected hotel guests in case of selected criterion 'Behaviour of Staff, considering their background variable 'Gender'. It implies that the hoteliers need to treat both that is the male and female hotel guests in a different and specialized way.

The staff of the hotel should be well-trained and need to be sensitized considering the Gender of the hotel guest in mind while providing them different services. It would behelpfulto the hotel in creating and sustaining long term relationships with the hotel guests' resultant into accumulation of the valuable source of repeat business and improved hotel guests' loyalty for the hotels in long run.

The selected hotel guests belonging to different age groups; occupation and educational qualifications had exhibited heterogeneous expectations in case of selected factor viz., 'Commitment'. It implies that the hoteliers should clearly communicate its schemes and events to each and every hostel guest in order to enable him or her to avail such facility and take advantage of it without failure.

The overall reported experience by the selected male and female hotel guests had revealed variations in the promises of hoteliers to update them on upcoming schemes. It implies that the hotel staff should take due care in providing continual information and maintain two way communication. Besides, thehoteliers should aggressively pursue and share the details especially with the female hotel guests as they are found to be relatively more demanding compared to male hotel guests, if failed may lead to the attrition of the hotel guests in future.

KEY SUGGESTIONS OF THE RESEARCH STUDY

- The hoteliers should train their hotel staff and provide necessary authority to solve certain problem instantly in case there is a delivery of defective product, poor service, tasteless food, or facility by replacing defective goods spontaneously, by not charging for meal or room stay, or providing free shipping if there is delay in fulfillment of orders.
- The periodical examination of pay scales, job descriptions, and systems that impact employees' benefits, promotion and retirement would provide a vehicle for personal growth and satisfaction.
- The real way to increase customer loyalty and improve retention is not to satisfy hotelguests', but to delight them. Frequently dissatisfied customers leave firms that fail to perform up to their expectations.
- The hoteliers can incorporate questions about expectations of hotel guests to improve future services in their feedback form.

CONCLUDING REMARKS:

The researchers had attempted to evaluate selected hotel guests' overall expectations and experiences on selected CRM strategy being prevalent amongst selected hoteliers in the State of the Gujarat and the results of this empirical research study have suggested that change in behavior of the hotel staff and commitment of hotel staff towards hotel guest only would help hoteliers to build long-lasting and ongoing relationship with the hotel guests.

The researcher had found variations in expectations amongst selected hotel guests considering their background variable which implies that in general the hoteliers have to work very hard to bridge the gap between actual expectation vis-à-vis reported actual experiences of hotel guests.

As huge differences were found in their expectations as well as their experience it becomes imperative to state that hotelier cannot afford to flout the differences that were found in expectations versus experience amongst selected hotel guests considering their background variables viz., Age Groups, Occupation, Educational Qualifications and Marital Status while formulating marketing and promotional strategies for attracting and retaining hotel guests.So, hoteliersshould frame their CRM strategy taking in t consideration demographic profile of the hotel guests as each hotel guest is different and should be treated differently. Today, businesses are facing an immense competition, and it has become difficult for them to survive in competitive environment and uncertain customer market place. So, more and more businesses are adopting customer-centric strategies, programs, tools, and technology for efficient and effective CRM.Customer retention needs to be improved by improving interpersonal relationships among hotel guests and hoteliers in a proactive way. It would be helpful also in building long-term service relationships between the hotel guests and hoteliers.

SELECTED REFRENCES:

Blank son, C. and Kalafatis, S.P. (1999). Issues and challenges in the positioning of service brands: a review. The Journal of Product and Brand Management, Vol. 8 No. 2, PP.106-118.

G Shainesh and Ramneesh (2003). Customer Relationship Management emerging concepts tools and applications. Tata Mc-Grew-hill Publishing Company limited, fourth reprint (2003),New Delhi, PP. 349-358.

http://economictimes.indiatimes.com/articleshow/49068340.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst, Accessed on 10/06/2017.

https://en.oxforddictionaries.com/definition/behaviour, Accessed on 09/06/17.

https://www.ibef.org/industry/tourism-hospitality-india.aspx, Accessed on 08th, February, 2016.

Kincaid, J. W. (2002). Customer relationship management: Getting it right! London, Prentice Hall.

Mario Castellanos-Verdugo, Nadine Veerapermal (2009). The employee-customer relationship quality Antecedents and consequences in the hotel industry. International Journal of Contemporary Hospitality Management, Vol. 21 No. 3, PP. 251-274.

Melinda Nykamp (2012). The customer Differential. The complete guide to implementing Customer Relationship Management, BPI Pvt. LTD PP. 4-8.

Michael D. Hartline and O. C. Ferrell (1996). The Management of Customer-Contact Service Employees: An Empirical Investigation. The Journal of Marketing, Vol. 60, No. 4 PP. 52-70.

Moorman et, al (1992).Relationships between provider and users of market research: The dynamics of trust within and between organizations. Journal of marketing research, 29, PP. 314-328.

Morgan, R. M. and Hunt, S. D. (1994). The Commitment-Trust Theory of Relationship Marketing. Journal of Marketing, Vol. 58, July, PP. 20-38.

Mummalaneni, V (1987). The influence of a close personal relationship between the buyer and the seller on the continued stability of theory role relationships. Unpublished doctoral dissertation, Pennsylvania state university.

Nancarrow, C., Rees, S., & Stone, M. (2003). New directions in customer research and the issue of ownership: A marketing research viewpoint. Journal of Database Marketing & Customer Strategy Management, 11(1), PP.26-39.

Peter C. Verhoef (2003). Understanding the Effect of Customer Relationship Management Efforts on Customer Retention and Customer Share Development. Journal of Marketing, Vol. 67, No. 4 (Oct.,), PP. 30-45.

Raghubalari & Smritee Raghubalan, (2010). Hotel Housekeeping operations and Management. Oxford higher education, second edition, New Delhi,2010.

Ruth Taylor and Doug Davies (2004). Aspects of training and remuneration in the accommodation industry a comparison between Australian and Singaporean providers. Journal of European Industrial Training, Vol. 28 No. 6, 2004, PP. 466-473.

Tan, X., Yen, D. C., & Fang, X. (2002). Internet integrated customer relationship management -A key success factor for companies in the e-commerce arena. Journal of Computer Information Systems, 42(3), PP.77-86.

www.dictionary.reference.com, Accessed on 09th, February, 2016.

www.equitymaster.com, Accessed on 08th, February, 2016.

www.timesofindia.indiatimes.com, Accessed on 08th, February, 2016.

Zeithaml, V.A., Parasuraman, A. and Berry, L.L. (1990). Delivering Quality Service: Balancing Customer Perceptions and Expectations. Free Press, New York, NY.

Social Entrepreneurship Promoting Inclusivity, Empowerment and Participative Governance - A Bibliographic Insight

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Abstract

Purpose: The study intends to provide a detailed account of the concept of social entrepreneurship and the dynamic national scenario of social entrepreneurship of India and the growth of entrepreneurship in various domains and various sectors of society. Moreover, the paper attempts to provide some feasible models depicting various facets of social entrepreneurship to encourage social participation.

Design, Methodology and Approach: This research is an exploratory inductive research based on existing literature and viewpoints as the platform facilitating possible futuristic vision of social entrepreneurship through some innovative models.

Findings: The study finds that there is vast scope of fostering social entrepreneurship in India. Government of India and different professional bodies are promoting social entrepreneurship for the greater interest of citizens. However, it's high time to assess and evaluate how things are in place through in depth researches.

Research limitations/implications: The result of the research is a new knowledge in the field of social entrepreneurship that can immensely help entrepreneurs to establish measure, and sustain social change with significant impact and the study can act as a platform for carrying out further researches on various kinds of social organizations in the domain of social sciences.

Social Implications: This study will act as a role model for social entrepreneurs all across the world in creating value added social institutions by actively promoting healthy social movements with effective utilization of human resources to create avenues for sustainable social impact and influence.

Originality Value: This study aims to contribute to the field of social entrepreneurship by providing new insights into the social entrepreneurship behavior. Moreover, the study suggests strategic models successfully implemented by the Indian entrepreneurs with their implications and wider interpretations for increasing citizen participation in development process.

Keywords: Social entrepreneurs, inclusivity, citizen participation, national skill development, leadership, India

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Introduction

Social entrepreneurship in its general parlance means social ventures or initiatives that create value in the society. These are the innovative business models to solve the social problems and help each one of the stakeholders of the social systems for active and effective participation in social development processes. The success of the venture is calculated on the impact and magnitude of the social value created. It is a passion for fulfilment of social mission in the business like framework of discipline, primarily based on innovation driven by objectives. In the words of Chell, Nicolopoulou, and Özkan-Karatas (2010), the social value creation is a prerequisite for social entrepreneurship that involves 'social value creating activity that can occur within or across the not-for-profit, business or government sectors'. Moreover, schools of thought show concerns on the outcome of social entrepreneurship: creating impact in addressing social issues (Defourny and Nyssens2010). Social entrepreneurs are developing new moodels for building a better world. The term social entrepreneurship may be new, but it has been demonstrated by the examples of visionary reformists in the form of different social model like Ashoka Foundation, Kalinga Institute of Social Sciences (KISS), VASERA, SANKALP among others. Therefore, delving deep into the current practices of social entrepreneurship at different level is of paramount importance.

Genesis of Social Entrepreneurship

The concept of social entrepreneurship evolved in the 1970s to address the issues related to of social problems. However, social entrepreneurship practices emerged in its pragmatic way in the 1980s with the establishment of Ashoka, which is the first organization to support social entrepreneurs in the world (Ashoka, 2009). Additionally the term 'innovation was explored byDrucker (1990), who argued the need for using management practices in non-profit organizations so as to ensure better effectiveness and efficiency in production of producing social goods.

Social Entrepreneurship: the concept

Social entrepreneurship, defined as a process that involves social entrepreneurs, who bring innovative solutions to social issues and rely on earned-income strategies in order to be more sustainable and create greater social impact. Mair and Mart (2006) defined social entrepreneurship as 'a process involving the innovative use and combination of resources to pursue opportunities to catalyse social change and/or address social needs'. Social entrepreneurship is an innovative venture that embarks on minutely pursuing opportunities to in all possible directions to ensure efficiency and effectiveness thereby producing targeted results (Weick, 1979). Social entrepreneurship has been at the forefront of social transformation (Trivedi, 2010). In all fairness, social entrepreneurship is a machination to uplift the social economic status of various sectors through value additions.

Attributes of Social Entrepreneurship

The entrepreneurs considerably endeavor to shift economic resources from lower level to a level of higher productivity with some promising style of re-engineering existing resources. Contextually, entrepreneurs possess certain attributes of for ensuring social change. The key attributes of social entrepreneurs are as follows:

- The social entrepreneurs play the role of change agents in the society;
- Adapt a mission to create and sustain social values;
- Identify and Relentlessly pursue new opportunities to serve that mission;
- Engagethemselves in a process of continuous innovation and adaptation;
- Act boldly with limited resources in hand; and
- Exhibiting heightened accountability to the causes served and outcomes created.

Literature Review

Delving deep into the concept of social entrepreneurship and explaining the social enterprises' the distinct traits, behaviors, and typologies motivate scholars to seek for new knowledge and tangible output for creating avenues for sustainable public wealth for the greatest interest of social welfare all around. There have been several studies conducted by research scholars all around the world focusing on key areas of social entrepreneurship. Some of the pertinent studies are worthy of examinations.

Ebrashi (2013) studied the contextual factors that lead to social venture creation and found that dynamic social entrepreneurship can considerably help in mobilizing the given resources in any kind of social set up by ensuring sustainable social change. Hervieux, C, et al, (2010) while tracing out the legitimacy issues in the literature on non-profits found that there is a dire necessity of legitimate means of funding a social mission to provide incentives and encouragement to social entrepreneurs and their endeavors. Spear (2006) while developing a social entrepreneurship framework provided a glimpse of policy implications forming as guidelines in support of social entrepreneurship. Sserwanga, et al. (2014) revealed that social entrepreneurship creates opportunities, recognition, networking and innovation at both an individual and societal level. Omorede, A. (2014) presented an emergent model that sought to introduce specifically empirically grounded reasons towards individual drives and motives for banking on social entrepreneurship.

Agrawal and Sahasranamam (2016) revealed that social entrepreneurship is driven by the environmental dynamics providing organizations with both implicit and explicit strategic benefits. Choi and Majumdar (2014) highlighted that though social entrepreneurship is a contested concept the positive impact of such activity can not be questioned. Moreover, Despite a lack of consensus on the definition and conceptualization of social entrepreneurship, which is not surprising for an emerging field (Christie and Honig2006; Chell, Nicolopoulou, and Özkan-Karatas2010; de Bruin, Shaw, and Chalmers 2014), social value creation is a core and uncontested dimension of this phenomenon. Zahra typologies of social entrepreneurs Zahra et al. (2009) sorts social entrepreneurs into three groups social bricoleurs, social constructionists and social engineers based on their objective of social opportunities, their identification of social needs, scale, scope and impact. Velvin, et al. (2016) revealed that social entrepreneurship constitutes a challenge to efficiency and effectiveness on a larger scale, given a need for both independence and interdependence together with flexible entrepreneurial network cooperation.

An Ideal Social Entrepreneurship Model

There are different social entrepreneurship models catering to myriad needs of operations, organizations and entrepreneurs. An ideal model is depicted in figure 1.

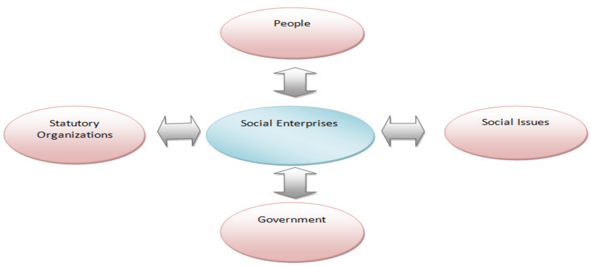

Figure 1. Social Entrepreneurship Model

Figure 1 reveals that social enterprises act as hub dealing with social issues, government, people and statutory organizations. If social issues are a chaotic ocean, the entrepreneur surf them skillfully to meet the requirements of government, general public, and statutory organizations.

Major Scope of Operation

There is a vast scope of operations identified in the area of entrepreneurship. Major scopes of operations of social enterprises in India supportedby different national as well as International organizations is depicted in figure 2:

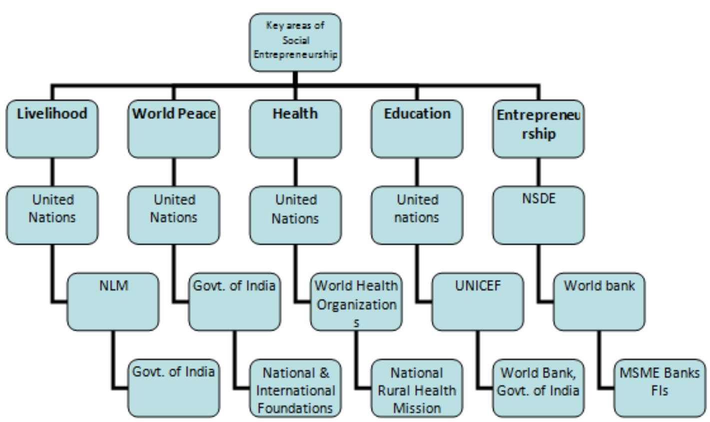

Figure 2. Key Areas of Social Entrepreneurship

Figure 2 shows that the key areas of operations in social entrepreneurship are: livelihood, world peace, health, education, and exclusive domain of entrepreneurship. Government of India, national and international foundations, national rural health mission, World Bank Govt. of India, MSME banks finance and monitor all policy matters of entrepreneurship in respective areas.

Examples of Social Entrepreneurs of the World

There are some outstanding entrepreneurs who have done exceedingly well by making benchmark in the field of entrepreneurship. Brief accounts of outstanding achievers extracted from their respective biographical notes are as under:

Susan B. Anthony, USA (1820-1906): Established Equal Rights association and fought for for women's equal rights in the society through different forums and fought for Women's Right to Control Property and had brought anti slavery bill at the age of 17.

John Muir, USA (1838-1914): Environmental Philosopher and Naturalist founded the Concept of National Park and founded Sierra Club. He also advocated for preservation of wilderness in USA

Dr. Maria Montessori, Italy (1870-1952): Introduced the Montessori method of learning in early age education based on natural learning concept.

Jean Monnet, France (1888-1979): A French Economist and diplomat dedicated himself for the cause of integration of European Union and considered as one of the founding father for re-construction of European Union.

Vinoba Bhave, India (1895-1982): Led the Bhoodan Movement in India and had re allocated 7,000,000 acres of land among the untouchable and landless Indians. Was an advocate of Non-violence and human rights.

Muhammad Yunus, Bangladesh (Born in 1940) : A Nobel Peace Prize Owner, Bangladeshi Social Entrepreneur, economist and founding father of Grameen Bank and piloting the microfinancing and microcredit concept.

Anshu Gupta, India : Raman Magsaysay awardee for transforming the concept of giving in India and his vision for Sustainable Development by sharing the resources among haves and have nots and bridging the gap between rural India and Urban India through his organization Goonj.

Hanumappa Sudarshan, India (Born in 1950): A social activist working for the tribal rights in Karnataka. Through his own established trust transforming the dysfunctional primary health center to professional healthcare centre.

Jamie Oliver, United Kingdom (Born in 1975): A British Chef running fifteen charity restaurants for poor people and starting a movement of 'FEED ME BETTER' for the school children of United Kingdom to have more healthy food and minimizing the Zunk Food.

Achyuta Samanta, India (Born in 1965): KISS, A Beacon in the Horizon Social Entrepreneurship:

This four letter world brings people closer, develops a sense of camaraderie. Kalinga Institute of Social Sciences (KISS) is a name to be proudly reckon with in the field of successful social entrepreneurship. KISS is considered to be the largest Anthropological laboratory in the world consisting of 25000 downtrodden ,tribal children picked up from remote, rural and hilly areas of the country. Achyuta Samanta, the young visionary social entrepreneur and founder of KIIT and KISS believes in the philosophy of " Catch them young" . It is here that not only the children are educated and nurtured from primary to post graduate and even for technical education, but also they are rediscovering and redefining themselves for a better and a brighter tomorrow. The Joy of Giving and empowering people by equipping them with necessary identified skill and work for a sustainable, satisfying and enriched living has helped numerous benefactors.

Bill Gates / Milinda Gates, USA: Working for reducing the inequity and providing the opportunities for all to grow and flourish.

Social Entrepreneurship in India

India is one of the youngest nations in the world whose 62% of total population is in the working age group of 15-59 and more than 54% of total population is below 25 years. The average age of Indian population is 29 years. That means approximately 800 million people of this country are in the working age group and 650 million people are below 29 years, the developing age group (Economic Survey, 2015-16). Therefore, it is very much required for this country to empower these youths with the power of knowledge and skill help them to lead a descent dignified life being the part of the fastest growing economy of the world and live as an active and proud citizen of this country.

Ministry of Skill Development and Entrepreneurship is helping to create an entrepreneurial ecosystem for the youth to learn, to perform and to transform and to grow. Education in isolation can not engineer the society, it should be combined with the skilling, producing, employment and generation of economy. National Skill Development and entrepreneurship policy was framed in 2009 and again it was replaced by 2015 Policy with greater horizon to accelerate the entrepreneurship activities in the country.

Growth of Social Entrepreneurship in India

Social Enterprises have emerged as an important business instrument to address the issues related to poverty, health, education, unemployment, inequity in the society through socially oriented business innovations. Such enterprises are helping people to actively contribute for the market economy rather than to be the passive recipients.

A survey of the Social Enterprises of India from a sample size of 258 Social Enterprises, done by British Council in the year 2016 and published in Social Enterprise Landscape in India – 2015 regarding engagement of social enterprises in the country in economic value creation.

- Skill Development – 53%
- Education – 30%
- Agricultural, Fishery, Diary –28%
- Financial Services – 26%
- Health Care – 22%
- Non-Farm Livelihood – 17%
- Food and Nutrition – 16%
- Water and Sanitation – 14%
- Housing Space – 5%

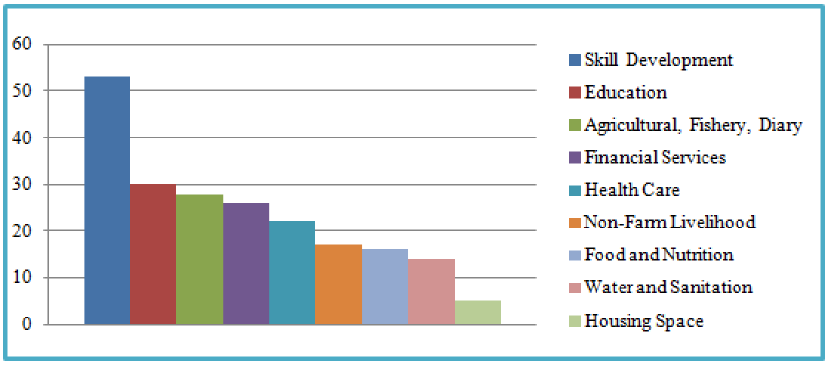

Figure 3. Engagement of Social Enterprises in India

Figure 3 shows that, more than half of the entrepreneurs are engaged in skill development followed by education; agricultural, fishery, diary; financial services, health care while entrepreneurs engaged in housing space is found minimum may be due to less requirement in this domain.

Factors motivating Social Enterprises to come up in India

- Making Profit / Surplus and Furthering Social Objectives: As per the report of British council (2016), 43% of social enterprises reported making profit/surplus , with another 22% at breakeven. 80% reinvest in the enterprises for furthering their social objective.
- The basic objective of the paper is to building confidence among the Medium and Small Enterprises (MSEs) by providing a genuine opinion on their capabilities and credit worthiness. (Number of Social Enterprises benefited)
- Support through Institution of Higher Education: 42%, Institutions of Higher Education delivering Social Enterprise related courses out of which 88% are Master's level courses. 46% Institutions are offering fulltime degrees indicating an interest in positive change for young people and their career choices.
- Dominated by Young Leadership : The research has found that the social entrepreneurship in India is driven by the youngsters, which is the symbol of

humble initiative for a long and glorious journey. 27% of the social entrepreneurs in India are below 35 and 57 % of them are below 44.

- Establishment of Incubation Centre : Government has established 118 incubators all over the country to promote innovation and entrepreneurship. In those centres, the incubatees are guided by the experts in technology and business, funded by the different government agencies and connected to the peers and prospective market.
- Availability of Skilled Manpower : Study says that India is the youngest Country having largest number of working age manpower. Every year we are producing more than 30 lacs technically skilled man power from skill training upto graduation level.
- Impact Investors : There are around 50 Impact Fund investors in India, who are located in four big cities, Bengaluru, Mumbai, New Delhi and Chennai. Which are the big investors in India in Financial Sector (Microfinance/ Financial inclusion).
- Impact of Companies Act – 2013 - The Act made it mandatory that Companies with a Net Worth of INR 500 Crore or more, or a turnover of INR 1000 crore or more or a Net Profit of INR 5 crore or more to constitute a committee towards a corporate social responsibility. The act mandates that 2% of average Net Profits made during the three immediately preceding financial year are spent in pursuance of the Company's CSR policy. The mandate has considerably increased the funds availability for social Sector organization in India.

Professional bodies promoting Entrepreneurship in India

- There are a number of professional bodies and associations, which are promoting social entrepreneurship in India. The prominent associations are highlighted below:
- Indian Chamber of Commerce (ICC): Indian Chamber of Commerce is working efficiently for promotion, growth and sustenance of industries by creating an environmental eco system since 1925. It provides platform for the industries for cross talks on different issues, polies, emerging business challenges as such they can address it unitedly. It also leverages the opportunity for settlement of trade disputes with mutual conversation. The Indian Chamber of Commerce had organized 'National Conference & Round Table Meetings on MSME Financing & Strengthening MSME Linkages on 19th and 20th September, 2014, with special session on creation of social enterprises', where all the experts had delivered about the growth, prospects and impact of social enterprises.
- Federation of Indian Chamber of Commerce and Industries (FICCI): The largest apex body for the business entities in India was established in the year 1927. It has emerged as finest centre engaged in putting across the issues of the business organizations and industries before the policy makers and civil

society and developing the integrated framework for development and growth of all. It has 2, 50,000 individual members and 300 association members. It provides platform for networking Indian industries, policy makers and the international business community and consensus building across and within the sectors.

- FICII in association with World Bank on had organized “Social Enterprise Innovations Seminar on enhancing service delivery” to the underserved in December 2015 to bring private entrepreneurs, policy makers and civil society.
- FICII has jointly agreed with Facebook to promote social entrepreneurship in India, South Asia and Africa to choose implement and scale up the selected ventures to benefit crores of people in the world.
- Confederation of Indian Industry (CII): Indian Industries and Government plan for making the integrated development through Confederation of Indian Industry (CII) by consultative and advisory processes. Has organized different conferences for promotion of social entrepreneurship in the country in association with Government. It has established a CII CSR gateway to bring Corporate CSR and Social entrepreneurship into partnership for finding solutions to the social problems.
- The Associated chamber of commerce and Industry of India (Assocham): ASSOCHAM is working for the value creation and expanding the reach of Indian Industries to all parts of the globe since 1920. It plays a vital role of developing industrial environment in the country, where all the new and existing industries can incubate and grow.

Recognition : Not only the leading News Paper like Economic Times, Business Standard and Magazines like India Today, Outlook have dedicated section for social enterprises but also Your Ski has published 15000 social enterprises in India.

Social Impact Analysis of Social Entrepreneurs

The Right to Education 2010 has created a positive awareness about the benefit of primary education in the country. It was found that social entrepreneurs have motivated a large mass of small children to join the primary school and motivated the matured population to join the learning opportunities available for them through Sarvasiksha Abhiyan mission, as a result of which the literacy rate in the country has increased substantially in last seven years. The mass media has also played the major role for creation of awareness about such programme which helped the social entrepreneurs to involve those group of people in Literacy activities. The multiple sources of information starting from mass media, DTH Services, access to internet after introduction of N number of telephone and mobile service providers, social media etc. has inspired the people to recognize the letters and learn the languages. People have realized that it will facilitate them to update themselves about the political and social scenario and help them in putting their opinion in different public platforms.

By the time the children complete the middle school, they become competent enough physically to help their parents in economic engagements to earn their livelihood. By this time they become literate and can access to different information pools and try to search for different career options after high school and after graduation. But, it is observed that because of the lack of well defined skill sets (clearly specified outcomes) in different levels of education the young boys and girls participating in primary education are quitting during their middle school career.

The involvement in academics is not only helping the young children to keep themselves abreast of the information, technology etc. but also helping them to know the financial options available to fulfil their financial requirement to meet the expenses of farming, tiny business, academic fees of the children, buying the motor cycles, television, mobiles etc. The education is helping them to take small loans from the public funding agencies or formal financial sectors, where the lending policies are mostly very transparent and customer friendly. As a result, the unnecessary burden of heavy interest charged by the landlords or petty money lenders is avoided. Singh (1998) found that with the increase in level of education in building confidence among the people to take part in formal financial sector. The social entrepreneurs or the banks working in different rural areas of India for doing CSR have trained nearly 30-35% people about different financial schemes available for them both for savings and advance purposes. .

The people engaged in different skill base economic activities (Singh,1998) are being trained with aparticular skill to help them to increase their productivity, nurture, and scale up their inherent skill but also to scale up. It is found that the people engaged in tiny business are satisfied with the turn over, which is fulfilling their basic need. The formal entrepreneurship training given by the social enterprises and awareness about different business expansion possibilities are helping the tiny business men/women to change in their style of operation from individualistic approach to process based approach. But it was found that more policy intervention is required to restructure those business processes to facilitate those group of people to diversify their business and to expand heir reach.

The sensitization programme of Government executed by the government machineries and Non-Government Organisations have revolutionized the awareness about health care facilities. The Government Insurance Policy has expanded exponentially and reached to the common people in providing health care services because of focus on human capital development. Out of 500 respondents, any one type of health insurance policy covered almost 90% of them and the 10% left out were not covered because of the lack of any type of Identity Proof. But 70% of respondents agreed that now they have the better awareness and access to different public policies because of the effort of NGOs working in different sector. Though media is creating the awareness, the NGOs are giving confidence to access. (Nandi, 2014). It makes the conclusion that social enterprises are helping this nation to educate, to earn, to spend judiciously, to live and to grow. They are transforming the social landscape from ignorance to participative. The establishment of more than a lac Social Enterprises in the years 2016 & 2017 will add more values in coming days.

Inclusivity and Participation of Citizen

Inclusivity create an atmosphere in which all people feel valued and respected and have access to the same opportunities (Riordan, 2014). Social Entrepreneurs develop financially sustainable organisations to respond to World's Most Pressing Problem, which is affecting large community (Wendy et al, 2012). Social entrepreneurship banks upon inclusive innovation, innovation which benefits the disenfranchised in a process as well as a performance outcome (George,2012). While poor access to financial resources and finance and strong bureaucratic system, act as challenges to start something new and innovative,the entrepreneurs were able to come up with innovative approach to benefit the society and the environment, while making profit at the same time (Azmat,2013). While discussing inclusivity, report of a survey undertaken by Social Enterprise Land Scape in India, 2016 needs mention.

Table 2: Beneficiaries of Social Enterprises in India

Categories of Beneficiaries	% of Respondents
Women	82
Youth	74
People from Backward Communities	70
Employees	60
People from underserved region	57
Children	46
People with Disabilities	31

Source: India's Social Enterprise Land Scape by Asian Development Bank (2015)

Table 2 shows that Women, youth and backward communities are the main beneficiaries of social enterprises. It isnoticed that in India, the objectives of the social enterprises are mostly on inclusivity and participation of citizens in all the developmental plan of the Government and adding values to the lives.Inclusive strategy adopted by the social entrepreneurs is depicted in figure 4.

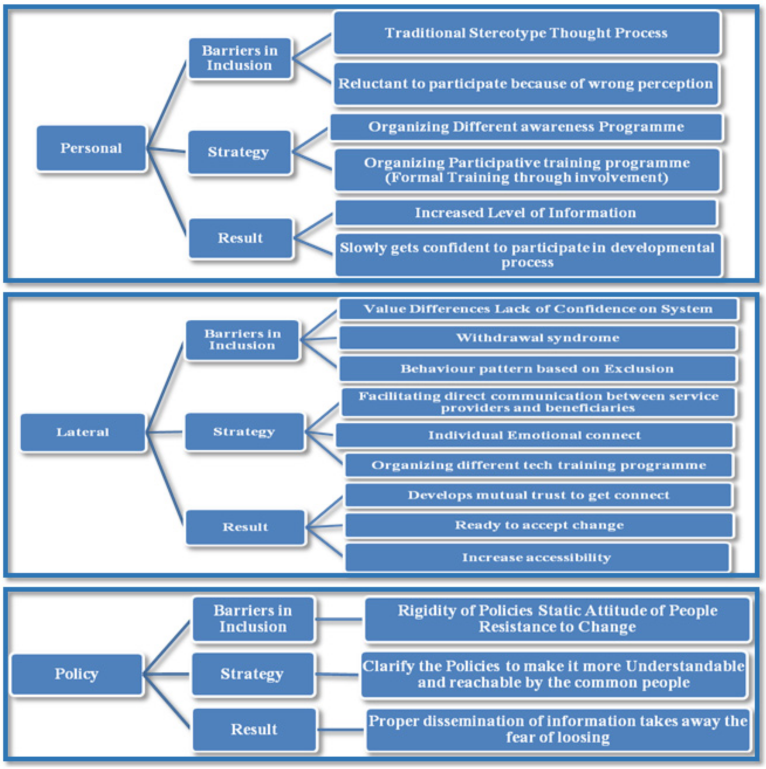

Figure 4. Inclusive strategy adopted by the social entrepreneurs

Figure 4 shows that lots of thoughts, efforts and resources are being put to motivate the people to connect themselves to the decision making process and take the charge of it, which can bring the change. Barriers to inclusion, strategy, and result clearlyaddressed for personal, lateral, and policy levels so that there would be smooth flow of execution of action plans. Actions and results are depicted in figure 5.

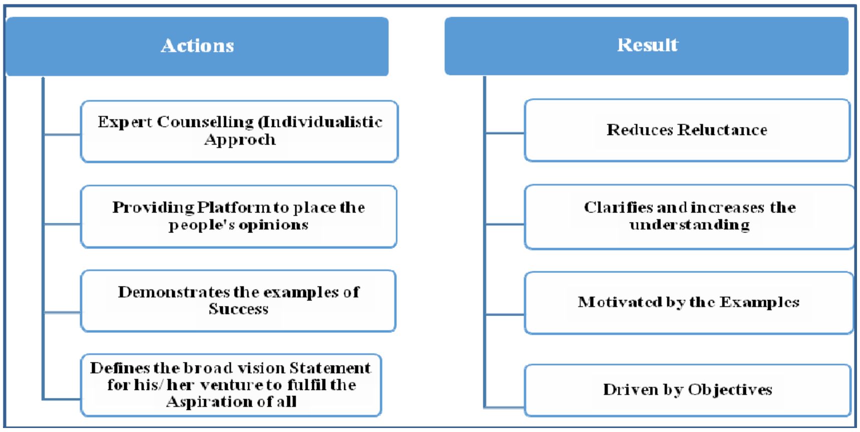

Figure 5. Affirmative Actions taken by the Social Entrepreneurs to promote Citizen Participation

Figure 5 reveals that social entrepreneurs take very active and effective action through expert counseling, providing room for public opinion, demonstrating examples of success, and by defining the broad vision statements that can ultimately reduce reluctance, clears doubts and ensures greater citizen participation in the undertaken projects.

Constructive Recommendations

Basing upon the existing literature and personal experiences of the investigator, the study provides the following constructive recommendations for a refined practice of social entrepreneurship:

- Social entrepreneurs should always motivate and encourage citizens to provide active support and cooperation in promoting health, education, and economic activities of different sections of society;
- Social entrepreneurs should explore all possible opportunities around them to create novel means for the greater interest of the society;
- Social inclusivity campaign in the form of training and counselling to people for ensuring a change of life style through innovation of new thoughts and ideas;
- Public policies framed by government should be honestly and sincerely followed by entrepreneurs for the holistic mission of dispelling unhealthy economic environment and disparity in the society; and
- Researchers should be encouraged to conduct academic surveys on leading entrepreneurs of the country as the sample-based survey conducted by British Council lacks the depth of understanding the level of execution of specific dynamic entrepreneurs.

Conclusion

It is evident from the study that the inequalities in economy, exposure to different opportunities, access to public services have increased in the last decade and are being controlled and monitored by a few individuals in the world. The public policy is not making the system participative for the people of all sectors of life, which is creating an unhealthy economic environment and disparity in the society. In this scenario, the role of Social Entrepreneurs is very crucial to establish a link among the people of all sectors of the society. They need to integrate people with thoughts, decisions, and actions.

Social entrepreneurs use opportunities around them to create a new means for society by recombining little available resources (Serwanga, et al, 2014). Inclusive strategy of Social Entrepreneurs to motivate the citizens to Listen, realise, participate and be empowered, be confident and live with dignity and is able to reduce the barriers of inclusivity. Through the Social inclusivity training, counselling and emotional connect they are trying to realize make the people that 'this world is yours, you are the most beautiful part of this creation'. This is been said, narrated, explained, guided, motivated and inspired to act by the change makers, who have brought the changes in themselves in the way they want to see the world. Those change makers have contributed substantially to add values to the lives through their unique innovations in thoughts, in products, in processes and by persuading all to take the ownership to grow by themselves or helping others to grow. This paper articulates all such things in a very concise manner. It is expected that the piece of work would serve as a catalist for the social entrepreneurs all across the world to emulate with the slogan "Educate, Enable, and Empower all" for making this world a better place to live in.

References

Agrawal, A. and Sahasranamam, S. (2016) "Corporate social entrepreneurship in India", *South Asian Journal of Global Business Research*, Vol. 5 No. 2, pp.214-233.

Ashoka (2009), "Selection criteria", available at: www.ashoka.org/support/criteria (accessed 8 March 2018).

British council (2016). Available at: https://www.britishcouncil.org/sites/default/files/bc-report-ch4-india-digital_0.pdf (accessed accessed 12 March 2018)

Chell, E., K. Nicolopoulou and Karatas, M. O.(2010), "Social Entrepreneurship and Enterprise : International and Innovation Prospective, *Entrepreneurship and Regional Development*, Vol.22, pp.485-493.

Choi, N. and Majumdar, S. (2014), "Social Entrepreneurship as an Essentially Contested Concept: Opening a New Avenue for Systematic Future Research", *Journal of Business Venturing*, Vol. 29, pp.363-376.

Christie M. J. and Honig, B.(2006), "Social Entrepreneurship: New Research Findings", *Journal of World Business* Vol. 41, pp.1-5.

Riordan, C. M. (2014), "Diversity is useless without inclusivity", *Harvard Business Review,* 5, June.Available at: https://hbr.org/2014/06/diversity-is-useless-without-inclusivity (accessed 12 March 2018).

Nandi, C (2014), "Entrepreneurship Development and its impact on Small Scale Business Enterprises in Developing Countries: A Nigerian Experience", *Journal of Entrepreneurship and Organisation Management.* Available at: https://www.omicsonline.org/open-access/entrepreneurship-development-and-its-impact-on-small-scale-business-enterprises-in-developing-countries-a-nigerian-experience-2169-026X-3-119.php?aid=36077(accessed 8 March 2018).

Defourney, J. and Nyssesns, M. (2010), "Conception of Social Enterprise in Europe and the US, Convergence and Divergence", *Journal of Social Entrepreneurship*, Vol. 1 No.1, pp. 32-53.

Drucker, P. (1990), "Managing the Non profit Organization: Principles and Practices", HarperCollins Publishers, New York, NY.

Ebrashi, R. E. (2013), "Social Entrepreneurship theory and Sustainable Social Impact", *Social Responsibility Journal*, Vol. 9 No. 2, pp.188-209.

Economic Survey (2015-16).Ministry of Finance, Government of India. Retrieved 6 February 2018 from: https:// global.oup.com/academic/product/economic-survey-2015-16-9780199469284cc=in&lang=en&.

Azmat, F. (2013), "Sustainable development in Developing Countries: The Role of Social Entrepreneurs", *International Journal of Public Administration,* Vol.*36,* pp.293-304.

George, G. et al. (2012), "Innovation for Inclusive Growth towards a Theoretical Frame work and a Research Agenda, *Journal of Management Studies,* Vol. 49, No.4 pp. 661-683.

Hervieux, C, et al, (2010) "The legitimization of Social Entrepreneurship", *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 4 No.1, pp.37-67.

India's Social Enterprise Land Scape by Asian Development Bank (2015). Available at: *https://www.adb.org/publications/india-social-enterprise-landscape-report (accessed 8 march, 2018)*

Mair, J. and Marti, I (2006), "Social Entrepreneurship Research: A Source of Explanation, Prediction and Delight", *Journal of World Business,*Vol.41 No.1, pp.36-44.

Omorede, A.(2014),"Exploration of motivational drivers towards social entrepreneurship", *Social Enterprise Journal*, Vol. 10 No.3, pp.239-267.

Singh N. (1998), Consequences of Industrialisation, Industrial Sociology, Rawat, New Delhi.

Spear, R.(2006) "Social entrepreneurship: a different model?", *International Journal of Social Economics*, Vol. 33 No. 5/6, pp.399-410.

Serwanga, A. et al,(2014) "Social entrepreneurship and post conflict recovery in Uganda", *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 8 No. 4, pp.300-317.

Trivedi, C.(2010), "Towards a social ecological framework for social entrepreneurship", Journal of Entrepreneurship, Vol. 19 No. 1, pp. 63-80.

Velvin,J., Bjornstad, K, and Krogh, E.(2016) "Social value change, embedddedness and social entrepreneurship", *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 10 No. 3, pp.262-280

Weick, K.E. (1979), *The Social Psychology of Organizing*, 2nd ed., Addison-Wisely, Reading, MA.

World Bank Enterprise Survey of India (2014). Available at:http://www.enterprisesurveys.org/data/exploreeconomies/2014/india (Accessed 6 March2018).

Zahra, S.A., E. Gedaijlovic, D. O. Neubeum, and J. M. Shulman, (2009), "A Typology of Social Entrepreneurs: Motives, Search Process and Ethical Challenges",*Journal of Business Venturing, Vol.* 24 No.5, pp. 519-532.

Corporate Governance of Microfinance Institutions and its Impact on Sustainability- A Case Study

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Abstract

Introduction and Purpose - Corporate Governance has assumed significant propositions in Indian microfinance sector after the Andhra Pradesh crisis during the year 2010, in order to regain the confidence of investors and other stakeholders for the accomplishment of sustainable business. Hence, this study explores the aspect of corporate governance essential for effective governance of the microfinance institutions and achieving the double bottom-line objectives. Further, this study seeks to develop a structural model to examine empirically the interdependency of corporate governance with the sustainability of microfinance institutions.

Firstly, the study identified 8 major factors i.e. board structures, disclosure and transparency, board administration, board participation, board independence, risk management, regulatory features and board effectiveness. These factors cover the broader aspects of corporate governance which significantly contribute for governing and directing the microfinance institutions in achieving their dual mission. It is also evident from the study that, when the direct effect of corporate governance on sustainability has been estimated along with performances (the mediator), the path from corporate governance to achieving institutional sustainability is controlled became weak, indicating that corporate governance has a statistically significant indirect effect on sustainability of MFIs through performance. Thus, the study found the positive and significant impact of corporate governance on the sustainability.

Keywords: Corporate governance, Sustainability, Microfinance Institutions, NBFC-MFIs

JEL Classification Codes: G34, G21

INTRODUCTION

Microfinance institutions (MFIs) are means of microcredit delivery mechanisms which provides thrift, credit and other financial services and products of very small amounts mainly for the poor in rural, semi-urban or urban areas, enabling them to raise their income levels and improve living standards (**NABARD, 1998)**. During the last two decades, there is a tremendous development of the microfinance industry and its role in the economic growth of developing countries. This success can be attributed to their ability to grant small loans to those excluded from the formal banking sector due to lack of collateral security **(Bassem, 2008).** However, after the Andhra Pradesh crisis, the MFIs find themselves in a critical situation because of

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multiple lending, over indebtedness, lower repayment rate, lack of capital etc for ensuring viability and sustainability. The causes of such downturn could be the inability of the existing framework of corporate management and the structure of Corporate Governance to cope up with recent changes in the business environment.

The term ‘governance’ has been derived from the word ‘gubernare’, which means “to rule or steer” (Bhasin, 2010). Corporate Governance is the relationship among various participants in determining the direction and performance of corporations. The primary participants are (1) the shareholders, (2) the management (led by the chief executive officer), and (3) the Board of Directors (OECD, 2001). In the microfinance field, the governance can be defined as the process of guiding an institution to achieve its objectives while protecting its assets and act as a mechanism through which donors, equity investors and other providers of funds ensure themselves that their funds have been used according to the intended purposes **(Hatarska, 2005)**. Good corporate governance is a necessity for any institution to secure long term sustainability and align policies and strategies with institutions’ mission or goals. **(Rachel Kyte, IFC, 2011).** It is an effective mechanism that helps in gaining the trust and confidence amongst the stakeholders as it stands on the four pillars i.e. Accountability, Responsibility, Transparency and Fairness. Further, it also helps to minimize the chances of business risk and financial risk which ensure sustainable business. It also contributes to efficient management, considering stakeholder interests, boosting the microfinance institution's reputation and integrity and fostering customer trust. Sustainability being a complex phenomenon, the dilemmas in MFIs begin from strategic thinking arising from their consciousness of the changing operating environment. It is the capacity to endure or sustain. In microfinance, sustainability can be considered at several levels institutional, group, and individual and can relate to organizational, managerial, and financial aspects (Sa-Dhan, 2003). However, the issue of financial sustainability of microfinance institutions has attracted more attention in mainstream analysis. In the broader perspective, for sustenance of microfinance sector, MFIs are on the same pedestal and becomes a necessary condition for the long-term survival. It is critical for MFIs for being able to reach its target clientele and cover administrative and other costs. While the social goals for reaching the poorest and attaining the poverty alleviation programmes are valid, sustainability-standing on one’s own feet- is as true for a low-income household receiving microfinance, a necessary requirement for the MFIs. Sustainability has both internal and external implications- internal, in terms of deposit and savings mobilization, financial performance, staff motivation, loan and administrative costs, etc, and external, in terms of availability of funds for loan disbursement, grant for community organizing and reaching out the poorest segment of customers and attaining appropriateness, training etc. various eminent author gives their views by approach of their findings of the study. It is essential to understand the approach behind the sustainability of microfinance institutions because institutions try to achieve foremost goal and it is also issue that has impact of the various mechanisms. Sustainability is in accordance with the duality of the MFI goals in i.e. on one hand they strive to attain financial sustainability (Operational Self Sustainability) and on the other to attain a high level of outreach to clients that need their services most. (Daniel Muwamba, 2012).

SIGNIFICANCE OF THE STUDY

This study tries to identify the various corporate governance issues or aspects based on which sustainability becomes a matter of concern. It also identifies corporate governance challenges of MFIs and makes recommendations for sustainable compliance. The present study enhances the existing body of knowledge by examining the impact of the various corporate governance mechanisms and its effect on the sustainability in context to Indian microfinance institutions. In this framework, this study tries to shed light on the main determinants of corporate governance which are essential for effective performance and sustainability. Besides, there has been ample research in socio economic development by microfinance, governance and firm performance, etc but research specific to corporate governance and sustainability issues of Microfinance institution is few. This study is an attempt to fill the gap to some extent which may helpful to the researcher, policy makers, practitioners etc.

LITERATURE REVIEW

The various literatures have been reviewed at national and international level but none of the literatures cited an in-depth, as far as the studies have least ascertained shows the lacuna in this area.

Table 1: Summary of Literature Reviews

Authors	Main Findings
Mersland and Strom (2008)	They analyzed and found that local board has positive relations with financial performance rather than international directors, an internal board auditor, and a female CEO. Outreach has positive relationship with CEO/chairman duality
Coleman and Osei (2008)	Governance plays a critical role in the performance of MFIs. Board independence and a clear separation of the CEO and board chairperson have a positive relation with both performance measures. Board size has positive relationship with profitability but negatively related to outreach.

Thankom A. & Annim S. K.(2010)	They identified that external governance indicators emerge as significant variable for the poverty reduction objective of MFIs where as fail to cause changes in the profitability of MFIs
Aras and Crowther (2008)	They realized the benefit of disclosure as they are positive related with sustainability. The extent of disclosure manifest through the reporting for sustainability
Bassem (2009)	Regulation and female board has positive influence on the financial performance and they further identified tradeoff between MFIs outreach and sustainability depending on large board size and higher proportion of unaffiliated director as it has positively impact on outreach and sustainability
Gohar R. and Batool A. (2014)	They found that the governance variables have a influence on the performance (economic and social) and productivity of the MFIs in Pakistan. Larger boards inversely affect economic performance and a positive effect on outreach and productivity.
Shrivastava P. & Addas A.(2014)	Disclosure is very important aspects leads to sustainability of corporation. Board meeting attendance is an important indicates that more disciplined boards result in better sustainability performance
Strom et al. (2014)	Female leadership is significantly associated with larger boards, younger firms, a non-commercial legal status and more female clientele. Furthermore they found that a female CEO and a female chairman are positively related to microbank performance, but this result has driven by MFIs' female market orientation rather than by improved governance
Mori N. (2014)	There is positive effect of directors' level of education on boards' performance, while no evidence was found with regard to the effect of female directors on boards' performance
Nawaz A. and Iqbal S. (2015)	Corporate governance practices has no significant impact on financial stability (ROA and OSS) of Asian MFIs. Greater operating expenses (OER) and higher portfolio yield (PY) has associated with improved governance practices
Paul G. D. et al (2015)	Board Composition and the Composition of Board Committees have significant relationship with banks financial performance i.e Earnings per share and return on assets
Mahajan V. and Nagasri (2011)	In this study they tried to examine what comes in the way of making Indian MFIs sustainable and what can facilitates this and an attempt has been made to look at sustainability from multiple dimensions and found that Governance are crucial to its sustainability

Lakshminarayana (2012)	He found that transparency is one of the dominant factors in governance process than auditing and accounting factor for the MFIs followed by grievance redressal mechanism and regulatory boards play a major role in establishing governance in MFIs
Galema et.al (2011)	They found that powerful CEOs of microfinance nongovernmental organizations (NGOs) have more decision-making freedom than powerful CEOs of other types of MFIs which induced them to make more extreme decisions that increase risk
Shrivastava P. and Addas A. (2014)	More disciplined boards and Boards with a higher percentage of independent directors have higher disclosure scores result in better sustainability performance
Thrikawala s et al (2013)	Percentage of women director has positive impact on MFIs performance
Azim (2012)	He observed by using Structural Equation Modeling that some governance mechanisms have positive covariance, while some have negative covariance. Thus, he arrived at no consistent and significant relationship between governance mechanisms and financial performance.

RESEARCH GAP

The numerous studies have analyzed the association between corporate governance and firm performance in the context MFIs of western countries but very limited numbers of researches have been done in context to Indian MFIs. Previous studies have linked corporate governance and firm performance and showed the impact of few aspects of corporate governance related to the board, regulation and ownership but none of the study analyses the aggregate effect as well as individual corporate governance aspects at one place. The existing studies mainly focused on the effect of governance issues related to the board on the MFIs' on profitability measures but very few studies show the relationship of corporate governance and sustainability empirically.

Therefore, there is an urgent need to find out that in what ways the corporate governance standards could bring about effective competencies of Indian MFIs.

OBJECTIVES OF THE STUDY

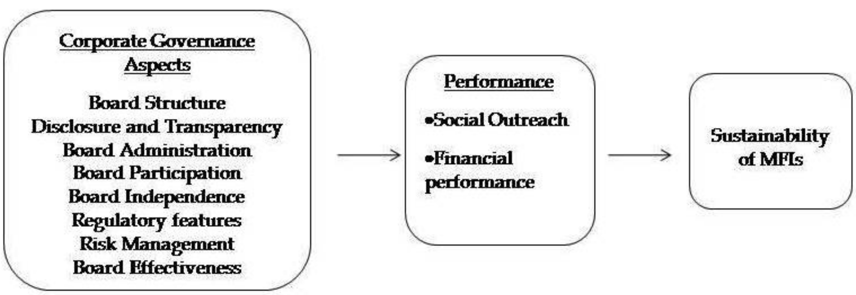
The primary objective of this research is to study the relevance of corporate governance in MFIs and impact of corporate governance mechanism on the sustainability of Microfinance Finance Institutions (MFIs). In regard to this, the various other secondary objectives framed for the study are as follows:

1. To explore the corporate governance mechanisms prevalent in MFIs.
2. To identify the model of structural relationship of the corporate governance and sustainability in MFIs.
3. To investigate the mediation effect of performance between corporate governance and sustainability of MFIs.
4. To examine the various corporate governance mechanisms linkage with the

Sustainability of MFIs.

HYPOTHESES

Figure 1: Proposed Research Model



The research hypotheses in regard to the above objectives of the study in accordance with the literature review are as follows:

Ho$_1$: There is no significant relationship between corporate governance and sustainability of MFIs.

Ho$_2$: There is no significant relationship between corporate governance and sustainability of MFIs in regard to mediation effect through performance.

Ho$_3$: There is no significant linkage of the various corporate governance mechanisms on the sustainability of microfinance institutions.

PROPOSED RESEARCH MODEL

The present study mainly covers 3 major areas i.e. Corporate Governance, Performances and Sustainability of select Microfinance institutions in India. The following theoretical framework explains conceptual background taken for the entire process of research are as follows:

RESEARCH DESIGN AND METHODOLOGY

This study is exploratory and causal in nature which is mainly confined with select fifty Microfinance Institutions of India (MFIs) as it cover 95% of business of microfinance over the market. This study adopted the exploratory sequential mix method design which based on the use of quantitative and qualitative approaches in combination to provide a better understanding of research problems from 2008-09 to 2010-15. *Primary data* has been collected through structured questionnaire both through interview and online survey where the 40 statements are measured on the five point Likert's scale.

Sampling Methodology: Since this study is based on primary data and secondary data both, Purposive sampling method has been adopted to achieve the objectives of the study.

- For secondary data: 50 NBFCs-MFIs have been selected.
- For Primary data: There are 720 target population of selected MFIs on which Yamane (1967:886) was applied to ascertain sample size. Based on that calculation, 257 should be sample. So, five to seven responses have been attempted to drawn from each selected NBFC-MFI and 271 responses has been collected from CEOs, Chief Executive Officers, Board of Directors, Company Secretaries, Senior Executives and other senior management executives including company Secretary of NBFC- MFIs.

Method of Analysis- For Exploratory analysis, Factor analysis has been applied and Multivariate analysis is applied through Panel Regression modeling i.e. Fixed and Random Effect model and Structural Equation Modelling have been used in the study by using AMOS 21 software

ANALYSIS AND DISCUSSION

Objective 1: To explore the corporate governance mechanisms prevalent in microfinance institutions in India.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.910
Bartlett's Test of Sphericity	Approx. Chi-Square	7930.530
	Df	780
	Sig.	.000

In the above table, The Kaiser-Mayer-Olkin (KMO) measures verified the sampling adequacy for the analysis. The KMO calculated is found to be 0.910 which is more than threshold value 0.6. This score indicates that the sample is 'good' for factor analysis (Kaiser and Rice, 1974). Further, In Bartlett's test of sphericity, the value of Chi-Square (df 780) is 7930.530 and the p value is .000 which is less than 0.05. Therefore the test statistics is significant and the null hypothesis that the correlation matrix is an identity matrix is rejected which desirable for the factor analysis is indicating that correlation between the variables is sufficiently large for factor analysis.

Table 4: Summary of Factor Analysis Results

Factor	Statements Number	Factor Loading	Reliability	Eigen value	% of Variance Explained	Naming of Factor
Factor 1	S24	0.748	.878	15.786	39.465	Board Structure
	S25	0.735				
	S26	0.698				
	S28	0.629				
	S23	0.627				
	S27	0.576				
	S22	0.475				
Factor 2	S12	0.774	.892	2.732	6.831	Disclosure and Transparency
	S13	0.771				
	S14	0.738				
	S10	0.717				
	S11	0.671				
	S9	0.605				
Factor 3	S17	0.73	.912	2.311	5.778	Board Administration
	S20	0.698				
	S21	0.696				
	S19	0.659				
	S18	0.654				
	S16	0.559				
	S15	0.441				
Factor 4	S4	0.772	.886	1.737	4.343	Board Participation
	S7	0.765				
	S5	0.719				
	S6	0.702				
	S8	0.682				
Factor 5	S31	0.834	.899	1.531	3.828	Board Independence
	S30	0.827				
	S29	0.824				
	S32	0.657				

Factor 6	S37	0.789	.842	1.33	3.325	Risk Management
	S40	0.748				
	S39	0.714				
	S38	0.563				
Factor 7	S1	0.768	.854	1.305	3.261	Regulatory Features
	S2	0.767				
	S3	0.730				
Factor 8	S33	0.695	.805	1.124	2.811	Board Effectiveness
	S36	0.660				
	S34	0.595				
	S35	0.587				

Findings: The study has identified 8 major mechanism i.e. board structures, disclosure and transparency, board administration, board participation, board independence, risk management, regulatory features and board effectiveness that comprises the major portion of corporate governance which are prevalent in microfinance institutions. The key factors that eight factors perceived by respondents are significantly contributed for governing and directing the microfinance institutions. These explored factors of corporate governance also have been similar as study cited in different previous studies that affect the working of MFIs. (Morck et al. 1988; Wruck, 1989; Welbourne, 1999; Randoy and Goel, 2001; Mitton, 2002; Fernandez and Gomez, 2002; Oxelheim et al. 2003; Chen et al. 2007).

Objective 2: To identify the model of structural relationship of the corporate governance and sustainability of MFIs.

Hypothesis: There is no significant relationship between corporate governance and sustainability of MFIs.

The structural equation modeling with second order construct has been used to show the causal and structural relationship between corporate governance mechanisms explored and sustainability of MFIs by using AMOS 21 software. This technique mainly consists with two part i.e. measurement model which is conducted to show the validity and reliability of the model and structural model which represents the association between endogenous and exogenous variables. Measurement model and structural model are briefly presented in the below:

Table 5: Measurement Model Fit

Fit Indices	Recommended Values	Model Values
CMIN/df	Below 5 (<3 preferable)	2.450
GFI	Above 0.8 (>0.9 better)	0.828
TLI	Above 0.9	0.903
CFI	Above 0.9	0.913
IFI	Above 0.9	0.913

RMSEA	Below 0.1 (<0.8 preferable)	0.073
CMIN = 774.242		
df = 316		
P value = 0.000		

The above table presents various model fit indices to check goodness of fit of measurement model by using different indices include Chi-square/df; Root-Mean Square Error of Approximation(RMSEA); Trucker-Lewis Index(TLI); Normed Fit Index(NFI); Comparative Fit Index(CFI); Relative Fit Index(RFI); Incremental Fit Index(IFI) which were used to test model fitness. The measurement model produced good fit with all the fit indices as per the threshold values suggested by Hair et al. (2010) - Absolute fit indices: CMIN/df = 2.450 (<3), GFI = 0.828 (>0.9), RMSEA = 0.073 (<0.8); Incremental fit indices: IFI = 0.913, TLI = 0.903 (>0.9) & CFI = 0.913 (>0.9).

Figure 2: Confirmatory Factor analysis

Table 6: Measurement Model Fit

Fit Indices	Model Values	Recommended Values
p-value	0.000	Significant p-value expected
CMIN/df	2.365	Below 5 (<3 preferable)
GFI	0.821	Above 0.8 (>0.9 better)
IFI	0.902	Above 0.9
TLI	0.891	Above 0.9
CFI	0.901	Above 0.9
RMSEA	0.078	Below 0.1 (<0.8 preferable)
CMIN = 835.20		
df = 317		
P value = 0.000		

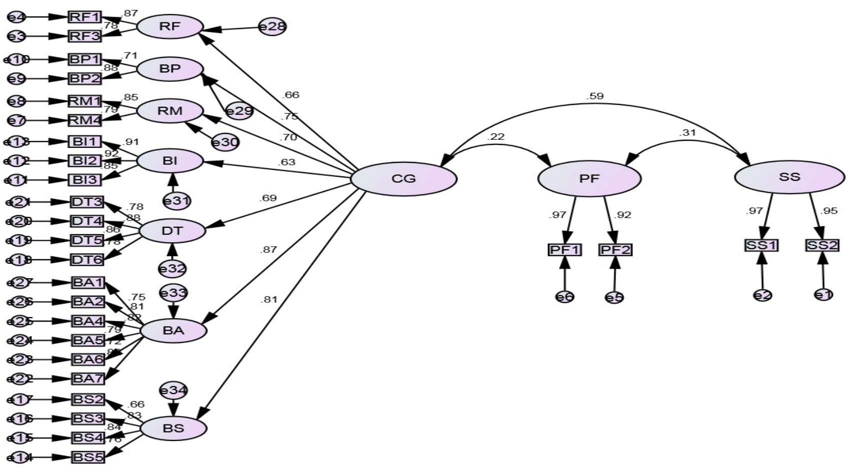


Table 7: Results of Hypotheses Testing

Relationship	**SMC (R^2)**	S.E.	t-value	β coefficient	P	Hyptheses result
PF ← CG	.083	.125	3.294	.230	***	Accepted
SS ← PF	.200	.074	5.291	.316	***	Accepted

Note: SMC-squared multiple correlations

The results of the study shows that corporate governance mechanism and performance both have significant t- value (t value= 3.294, p< 0.000) on the sustainability at 1% level of significance. Therefore, hypotheses can be supported. However, 8.3% of the variance in performance is explained by corporate governance mechanism and 20% of the sustainability is explained by the performance. Thus the result suggested that corporate governance will have reasonable influence on the performance which leads to stronger influence on the sustainability. This finding is consistent with T Janggu et al., 2014, D Muwamba, 2012 and G Lenssen , 2014.

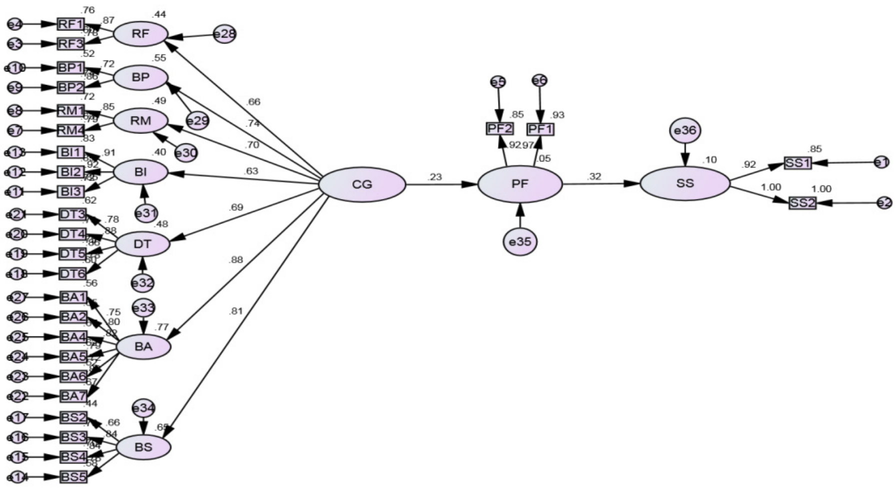


Figure 3: Path Analysis

Objective 3: To investigate the mediation effect of performance between corporate governance and sustainability of MFIs.

Hypothesis: There is no significant relationship between corporate governance and sustainability of MFIs in regard to mediation effect through performance.

Table 8: Results of Mediation Analysis

Mediating effect of	Between	Statistics CG[a] →SS[b],without PF[c]		Statistics CG →SS with PF		Decision
		□[d]	p-value	□	p-value	
PF[c]	CG→SS	0.594	0.001	0.543	0.001	Partial Mediation

The above table is showing that the indirect relationship which has been further checked by testing the mediation roles by using Barron & Kenney's Approach (1986) along with Preacher and Hayes (2004) Bootstrapping method. Under Barron & Kenney's Approach (1986), the mediating effect has been supported by performances on the relationship between corporate governance and sustainability of MFIs. When the direct path from performance to achieving the sustainability is controlled (set at zero), the estimated path from Corporate governance to sustainability was significant (p < .001; □ = 0.59). However, when the direct effect of corporate governance on sustainability has been estimated along with performances (the mediator), the path from corporate governance to achieving the sustainability is controlled became weak (□□= 0.54, p < .001) indicating that corporate governance has a statistically significant and have indirect effect on sustainability of MFIs through performance.

Preacher and Hayes (2004) Bootstrapping method further confirms the partial mediation of performance as a mediator between corporate governance and sustainability as p-value is 0.009 which is significant in indirect effect test which shows there are some sorts of mediation present as well as p-value is 0.002 which is significant in the direct effect test which confirms that there is partial mediation of performance between the corporate governance and sustainability. The result is consistent with Mahajan V.(2009), Zellar (2000).

Objective 4: To examine the corporate governance mechanisms linkage with the sustainability of MFIs.

Hypothesis: There is no significant linkage between corporate governance mechanisms on the sustainability of MFIs.

Microfinance Institutions is said to be sustainable when it is capable to achieve their dual goals i.e. maximum social outreach and financial viability. So, here, sustainability of MFIs is measured by using proxies of social outreach (NAB and AOB) and proxies of Financial viability measures (ROA, OER/L, Par>30days and OSS). Panel regressions have been conducted separately for the six dependent measures (i.e. LOG_ROA, LOGAOB, LOGNAB, LOGOERL, Par>30days and LOGOSS) and eleven independent variables (BOD_S, FE_BOD, IND_DIR, NOM_DIR, DISCLOS, BOD_COM, CEO_D, BOD_M, AUD_COM , NED_CH and INT_AUD) along with two control variables (AGE and FIRMSIZE). Regulation has been excluded from the analysis while running regression due to constant result i.e. all the MFIs which are in the sample for the study are regulated by RBI. This technique mainly consists with two approaches i.e. Random effect and fixed effect and Hausman test of model specification has been applied to select the appropriate model which are given in the table below:

Table 9: Selection of Fixed effect or Random Effect model

Dependent variables	**Chi -Sq. statistics**	**Prob > Chi**	**Hausman Test result**
Social measures			
NAB	62.145	0.0000	**Fixed effect model**
AOB	67.300	0.0000	**Fixed effect model**

Financial measures			
ROA	30.834	0.0036	**Fixed effect model**
OER/L	13.886	0.3810	**Random effect model**
Par>30days	23.810	0.032	**Fixed effect model**
OSS	45.044	0.000	**Fixed effect model**

Table 10: Result of Panel Regression analysis

Table 10: Result of Panel Regression analysis Corporate Governance aspects	**Social outreach Measures**				**Financial Measures**							
	NAB		**AOB**		**ROA**		**OER/L**		**OSS**		**PAR>30**	
	□□□□ {t]	**p**	□□□□[t]	**p**	□□□□[t]	**P**	□□□□[t]	**p**	□□□□[t]	**p**	□□[t]	**p**
BOD_S	0.013 [0.719]	0.472	0.011 [0.972]	0.331	0.049 [0.798]	0.425	-0.012**[-1.999]	0.048	-0.038**[-2.094]	0.037	-0.043[-0.593]	0.553
FE_BOD	-0.003 [-1.168]	0.243	0.001 [0.067]	0.946	0.023** [2.130]	0.033	0.001 [0.139]	0.889	0.005* [1.814]	0.070	0.006 (0.5770)	0.558
NOM_DIR	-0.001 [-0.444]	0.657	0.001 [0.263]	0.792	-0.003 [-0.424]	0.671	0.031** [1.987]	0.041	0.002 [0.992]	0.321	0.05*** [5.285]	0.000
DISCLOS	0.051 [0.651]	0.513	0.096* [1.911]	0.056	0.747** [2.470]	0.014	-0.224** [-3.008]	0.002	-0.005 [-0.074]	0.940	0.283 [0.665]	0.506
BOD_COM	0.004 [0.176]	0.859	0.174 *** [4.423]	0.000	-0.186** [-2.454]	0.014	0.015 [0.652]	0.514	-0.004 [-0.164]	0.869	0.272** [3.107]	0.002
BOD_M	0.007 [-0.453]	0.650	0.016 [1.572]	0.117	-0.114 [- 1.601]	0.110	0.007 [0.462]	0.644	0.011 [0.731]	0.465	0.011 [0.844]	0.195
IND_DIR	0.002 [0.929]	0.353	-0.002 [-1.556]	0.120	0.002 [0.287]	0.773	0.001 [0.339]	0.736	0.004** [1.997]	0.047	0.001** [0.969]	0.038

CEO_D	0.078 [0.841]	0.401	-0.162** [-2.743]	0.006	0.156 [0.620]	0.535	0.039 [0.501]	0.616	0.124 [1.375]	0.170	0.085 [0.247]	0.804
INT_AUD	-0.059 [-0.439]	0.660	-0.023 [-0.273]	0.785	0.669 [0.974]	0.330	0.046 [0.286]	0.774	0.024 [0.188]	0.850	0.416 [0.861]	0.389
NED_CH	-0.635** [-1.995]	0.045	-0.184 [-0.910]	0.363	-0.197 [-0.260]	0.794	0.032 [0.126]	0.899	0.864** [2.803]	0.005	1.815 [1.102]	0.306
AUD_COM	-0.039 [-0.967]	0.334	0.034 [1.346]	0.179	-0.008 [0.217]	0.827	-0.008 [-0.217]	0.827	-0.012 [-0.308]	0.757	0.115 [0.812]	0.417
AGE	-0.072** [-1.996]	0.046	0.165** [3.663]	0.003	0.178 [1.046]	0.296	0.036 [0.639]	0.522	-0.091 [-1.329]	0.184	0.460* [1.69]	0.091
FIRM_SIZE	0.655*** [22.407]	0.000	0.106*** [5.746]	0.000	0.229** [2.856]	0.004	0.190*** [7.638]	0.000	0.194*** [6.844]	0.000	-0.204 [- 1.393]	0.164
C	1.353** [2.192]	0.029	5.988*** [15.26]	0.000	1.584*** [5.393]	0.000	6.450*** [11.836]	0.000	6.643*** [3.285]	0.001	9.210** (3.121)	0.002
R-sq	0.849		0.677		0.417		0.284		0.453		0.630	
Adj. R-sq	0.838		0.606		0.390		0.256		0.335		0.558	
F- stats. (Prob > F)	75.82*** (0.000)		9.630*** (0.000)		3.298*** (0.000)		10.22*** (0.000)		3.822*** (0.000)		8.04*** (0.000)	
DW-stats	1.73		1.93		1.85		1.98		1.76		1.88	
Redundant F-test(P value)	22.7*** 0.000		7.33*** 0.000		3.17*** 0.000		-		2.622*** 0.000		6.78 0.000	

Breusch and Pagan LM test	-	-	-	000***	-	-
N	348	348	348	348	348	348

*Note : *significant at 10% level of significance **significant at 5% level of significance *** significant at 1% level of significance*

□□□□beta coefficient ; Parenthesis [ ] indicates t- statistics and p indicates p-value

Impact of Corporate governance on Social Outreach Measures: In the above table, the value of R- square shows that 63% variation in the NAB and 68 percent in AOB are explained by corporate governance aspects taken for the study. Further, the significant F-statistics also shows that corporate governance aspects have positive impact on the social performance measures i.e. NAB and AOB. The result showing that NED_CH has negatively affected on the extent of outreach and its beta estimates reveals 1% change in non executive director chairman may leads to 6.3% variation in the depth of outreach. The study also found that DISCLOS and BOD_COM are significant are significant at 5% level of significance have positive impact and CEO_D has negative impact on the AOB at 1% level of significance. Besides firm size has positive and significant impact on depth and breadth of social outreach at 1% level of significance.

Impact of Corporate governance on Financial Viability Measures: The value of R-square shows that 84.5% variations in ROA, 28.4% variation in OER/L , 45% percent variation in OSS and 61% variation in the PAR>30 days are explained by corporate governance aspects jointly taken for the study. Further, the significant F-statistics also shows that corporate governance aspects have positive impact on the financial viability measures. The result also shows that FE_BOD, DISCLOS, BOD_COM and FIRM_SIZE have found significant impact on the ROA at 5% level of significance. The results also show that board size is negatively related with OER/L i.e. large board have negative influence the economic performance as it becomes difficult to handle large boards and to reach consensus about management decisions. IND_DIR, NED_CH FIRM_SIZE and AGE have found positive and significant impact at 5% level of significance indicates that board structure, disclosure and transparency and risk management are essential for achieving the operational sustainability of MFIs.

CONCLUSION

As the microfinance industry grows and becomes more complex, corporate governance plays an increasingly vital role in managing the operations of institutions and preventing crises. It provides the framework through which an institution's diverse stakeholders and investors such as board members, management, and employees set the strategic vision, monitor performance, and manage risks. An institution's governance structure helps mediate the interests of various stakeholders and protects the long-term health of the institution.

This study proposed and tested the models that attempted to confirm the relevance of corporate governance practices which is important for effective governance influencing sustainability of MFIs. The results of the study have provided important implications necessitating establishing the fact that the various eight broad corporate governance mechanisms viz., board structures, disclosure and transparency, board administration, board participation, board independence, risk management, board effectiveness and regulatory features are essential for their effective governance which influencing the operation of microfinance in sustainable manner.

Further it is also found that corporate governance has positive and significant impact on the sustainability of the MFIs as the qualitative and quantitative approaches both confirms that Corporate governance and sustainability of MFIs both have positive and significant impact where performance act as mediating role between corporate governance and sustainability which reveals corporate governance will have reasonable influence on the performance which leads to stronger influence on the sustainability.

Sustainability can be achieved by the microfinance institutions by boosting the corporate governance mechanism in microfinance institutions. Thus, by analyzing the effect of individual corporate governance mechanism on the different perspective of sustainability, the study has found that Risk management, Disclosure and Board administration have positive impact for maintaining the more outreach of MFIs. MFIs may able to reach more poor clients if they adopt effective risk management, more disclosure in the annual report and Board administration. Where Board Compositions, Board administration, Board Independence and Disclosure have positive impact on the profitability, cost efficiency and the financial viability of MFIs. Thus, from the above it can be concluded that for more Board Compositions and structures, Board administration, Board Independence and Disclosure are essential for enhancing the financial viability of MFIs. Therefore, Effective corporate governance has been identified as a crucial bottleneck in enhancing many MFIs' financial performance and expanding their social outreach which leads to sustainability of MFIs in the market. Corporate governance mechanism acts as an appropriate way of improving the MFIs performance (Hartarska, 2005; Coleman and Osei, 2008; Ben Soltane, 2009; Mersland and Strøm; 2009).

SUGGESTIONS

The study suggests that MFIs should emphasis more efficiently on these seven broad mechanisms of corporate governance i.e. board structures, disclosure and transparency, board administration, board participation, board independence, risk management, and regulatory features for their effective governance. Corporate governance has reasonable influence on the performance which leads to stronger influence on the sustainability. Therefore, MFIs should have a corporate governance practices in its policies. Sustainability of MFIs can be achieved with more efficiency in corporate governance practices which is a requisite for the attaining the financial viability and maximum social outreach. The study finds that MFIs will be successful only if it is able to strike the right balance between the two frameworks i.e. development and finance that underlie in practice. It is further suggested that more experienced and expertise people should be placed and nominated while the composition of board and senior management.

LIMITATIONS OF THE STUDY

1. This study has concentrated on only regulated microfinance institutions in India i.e. NBFC-MFIs for achieving the objectives as these institutions covers 90% share of microfinance business but other MFIs such as NGOs MFIs, Societies, Trust, Section 25 companies, Cooperatives etc have not considered.
2. This study has taken proxies for measuring the sustainability of MFIs used in the previous research due to non-availability of clear cut data to measure sustainability of the MFIs.
3. The present study considered the key aspect of corporate governance practices in context to Indian microfinance institutions which cover mostly the internal mechanism of corporate governance.

FURTHER SCOPE OF THE STUDY

Future studies can be carried out by taking other various legal forms of MFIs such as NGOs MFIs, Section 25 companies, Cooperatives etc. Further, as present study tried to narrate the implication of corporate governance mechanism on the sustainability in India as a whole on long panel set corroborates with primary as well as secondary data but still this research would be needed to clear the implication of corporate governance of individual MFIs on the sustainability to show the variation among individual MFIs. A further study can be conducted for impact of corporate governance on sustainability by taking into account other measures of sustainability such as Management Information System, Technology know-how of company operations, and other accounting measures.

REFERENCES

Qayyum A. and Ahmad M.(2006).Efficiency and Sustainability of Micro Finance Institutions in South Asia. https://mpra.ub.unimuenchen.de11674/1/MPRA_paper_11674. pdf

Alok A. & Joseph N. (2012). Regulating the Growing Commercialisation of Microfinance Institutions in India. *NUJS Law Review*, 5 NUJS L.Rev. 65, Pp no. 65-91

Anthony Q. Aboagye, James Otieku, (2010) .Are Ghanaian MFIs' performance associated with corporate governance?, *Corporate Governance: The International Journal of Business in Society*, Vol. 10 Iss: 3, pp.307 – 320

Ashta A. and Bush M.(2009).Ethical Issues for NGO Principals in Sustainability, Outreach and Impact of Microfinance: Lessons in Governance From Banco Compartamos's IPO. *Management Online Review,*November 2009 ISSN 1996-3300 .

Kar A.K. (2012). Does capital and financing structure have any relevance to the Performance of Microfinance Institutions. *International Review of Applied Economics*, 26:3, Pp 329-348.

Augustine D. (2011).Good Practice in Corporate Governance: Transparency, Trust, and Performance in the Microfinance Industry. *Business & Society* 51(4) 659–676 © 2012 SAGE Publications.

Ayi Gavriel Ayayi and Maty Sene (2010).What drives microfinance institution's financial sustainability. *The Journal of Developing Areas*, Volume 44, Number 1, Fall 2010, pp. 303-324

Bayeh Asnakew Kinde (2014). Financial Sustainability of Microfinance Institutions (MFIs) in Ethiopia. *European Journal of Business and Management*, *IISTE* , ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol 4, No.15, 2012

Boehe, D.M. & Barin Cruz, L. (2013). Gender and Microfinance Performance: Why does the Institutional Context matter? *World Development,* 47, 121-135.

Carlo Milana. (2015). Strategic Change: Microfinance and Crowd funding. Volume 24, Issue 3, pages 301–303, May, John Wiley & Sons, Ltd.

Coleman, A.K. and Osei, K.A., 2008. Outreach and profitability of microfinance institutions: the role of governance. *Journal of Economic Studies*, 35, 236–248.

Darline Augustine (2012).Good Practice in Corporate Governance: Transparency, Trust, and Performance in the Microfinance Industry. *Business Society* 2012 51: 659 originally published online 11 July 2012 DOI: 10.1177/0007650312448623

Elisabeth Rhyne(1998). The Yin and Yang of Microfinance: Reaching the Poor and Sustainability. MICROBANKING BULLETIN, JULY 1998

Available at http://www.jointokyo.org/mfdl/readings/Rhyne-yingyang.pdf

Felipe O. Calderon (2014).Performance Measurement and Governance of Sustainable Lending: An Exploratory International Study. *University of St. Gallen*, School of Management, Economics, Law, Social Sciences and International Affairs, Dissertation no. 4338.

Ghosh B.N. (2011) Business Ethics and Corporate Governance. *McGraw Hill Education* (India) Private Limited; 1 edition, ISBN-13: 978-0071333320.

Governance Practices among Microfinance Institutions in India, *PSIG Research report*, June 2015© Research India Publications

Gruszczynsk M. (2006). Corporate Governance and Financial Performance of Companies in Poland. *International Advances in Economic Research.* May 2006, Volume 12, Issue 2, pp 251-259

H. Tchakoute Tchuigoua (2010). Microfinance Institutions Performance. What Matters About The Interaction Of Location And Legal Status? *Working Paper No. 10/038* Centre Emile Bernheim. EB

Hartaska, V. (2005) .Governance and Performance of Microfinance Institutions in Central and Eastern Europe and the Newly Independent States. *World Development*, Vol. 33, No.10, pp. 1627-1643.

Hubert Tchakoute-Tchuigoua (2011).Is there a difference in performance by the legal status of microfinance institutions? *The Quarterly Review of Economics and Finance* volume 50 (2010), pg 436–442

Annexure:

Table B : Summary of Variables

Sl. no.	Corporate Governance Aspects	Proxy Variables	Abbreviati -ons used	Explanations
1	Board Structure	Number of Board Members	BOD_S	Total number of board member in the composition of MFI's Board.
		Proportions of Female Board	FE_BOD	The proportion of women directors on the composition of total no. of directors.
		Proportions of Nominee directors	NOM_DIR	The proportion of nominee directors on the composition of total no. of directors.
2	Disclosure and Transparency	Disclosure of Annual Reports	DISCLOS	Dummy variable equal to "1" if the MFIs are disclosing annual report in website and "0" otherwise.
3	Board Administration	Number of Board Committee	BOD_COM	The commitment of the board is measured by the number of committee formed during a year.
4	Board Participations	Board Meeting	BOD_M	The participation of the board is measured by the frequency number of meetings during a year for the board directors.
5	Board Independence	Proportions of Independent directors	IND_DIR	The number of independent non-executive directors on the board relative to the total number of directors.
		CEO Duality	CEO_D	Dummy variable equal to "1" if the CEO is also the chair of the board and "0" otherwise.
6	Risk Management	Presence of Audit Committee	AUD_COM	The number of member in audit committee.

		Non-Executive Chairman of Audit Committee	NED_CH	Dummy variable equal to "1" if the MFIs audit committee chaired by Non-Executive director and "0" otherwise
		Presence of Internal Auditors	INT_AUD	Dummy variable equal to "1" if the MFIs having internal auditor and "0" otherwise
7	Regulations	Compliance of law made by RBI	REG	Dummy variable equal to "1" if the MFIs is regulated and "0" otherwise.
B	**Sustainability Aspects**			
1	Operational self sufficiency	Operational Self-Sufficiency Ratio	OSS	The ratio of financial revenues is divided by the sum of financial expenses, loan loss expenses and operating expenses.
		Portfolio at risk over 30 days	PAR>30	This ratio measures the amount of loans outstanding whosepayments are due over past 30 days.
2	Profitability	Return on Assets	ROA	The ratio of net profit after tax and before donations is divided by average assets
		Operating expense / loan portfolio	OER/L	The ratio of operating expenses is divided by Average gross loan Portfolio
3	Outreach • Depth • Breadt h	Number of active borrowers	NAB	It measure the extent of outreach indicates the number of clients are being served by MFIs.
		Average outstanding balance	AOB	It measure the depth of outreach as indicates the how are poor the client served by MFIs
C	**Control Variables**			
1	Firm Size	Total assets of	FIRM_SIZ	The natural log of firms' total

		the Firm	E	assets
2	Firm Age	Total number of years since establishment	AGE	Dummy variable equal to "1" if the MFI is New (less than 5 years), "2" if the MFI is Young (5-9 years) and "3" if the MFI is Mature (10 years or more).

Perceptual Mutual Fund Performance Model: An Indian Investor's Perspective

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Abstract

This paper presents a perceptual model of mutual fund performance that attempts to go beyond the conventional models. Model presented in this paper is based on the perception of individual investors about various selected parameters affecting the performance of mutual fund. As all the conventional as well as contemporary models available in the wide literature canvas, encompasses a very limited scope and perspective of mutual fund performance. Considering the global amplification and increasing awareness of investors, this model is the need of the hour. For assessing mutual fund performance five determinants were considered. Primary data was gathered by means of the questionnaire mode. Findings of the present research study provide a compact cluster of factors playing influential role in framing the perception of mutual funds. The fact revelations and conclusions of this study make essential inputs to the academic literature in the form of inferences for investors and for fund management companies by identifying the influential decision making factors regarding mutual funds. Hence the determinants which this model ascertains are highly practical and pertinent to all categories of mutual funds. Nevertheless, to give robustness to the model by subjecting the theoretical model to undergo through the structural equation modeling technique of analysis

Keywords: Fund Characteristics, Fund Family, Fund Manager, Mutual Funds, Perception, Return, Risk.

1. Introduction

Volatility and uncertainty are part and parcel of stock market investing. Mutual fund investors too cannot remain unscathed when the movement of indices becomes range-bound. The augmentation of investments in mutual funds globally has amplified in some former decades which have resulted in a fierce competition in the industry. In present scenario investors have an assortment of products to pick from that ultimately results in making their investment decisions even more complicated. Although there are numerous decisive parameters playing a vital role in their decisions but performance of the fund, in spite of everything, appears to be an influential aspect (Ippolito, 1992; Capon et al., 1996; Sirri & Tufano, 1998).

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In this research, literature canvass had various orientations. The most probative objective was to secern unambiguous gaps that may preexist in the existing body of information pertaining to mutual fund performance measures. Literature revealed that the limitation of the earlier studies is that they have focused on individual factors like restraining for risk, measures of return, and measures of risk or on how to fiddle with risk and interpreted the meaning and significance of each factor. Being univariate studies, they provided a partial outlook of the performance of the mutual fund, with one aspect at a time. The present study is an attempt to develop a model for the performance evaluation of Mutual Fund schemes based on an assortment of parameters. Research work of Capon et al. (1996) has put forward a very practical approach on investing in the form on investor psychology. According to researchers, while endowing funds in mutual funds, investors make use of a multi-attribute model in place of a 'naive model' which is exclusively focused on risk and return. Considering the identified research gaps, objective of this research study was to identify various factors affecting performance of mutual funds according to the perceptions of Indian mutual fund investors along with their relationship and then developing a model linking the identified factors and validating the same.

2. Review of Literature

In context of mutual funds, comparative performance evaluation of various mutual fund policies and AMCs has always pondered an incredible debate. Harry Markowitz has been the pioneer of performance evaluation measures and followed by Fama, Sharpe, and Treynor etc. Review of literature in this study has been segregated into various sections covering literature on various determinants of mutual fund performance. Performance evaluation measures of mutual funds are fundamentally reliant on three core frameworks framed independently by Sharpe, Jensen and Treynor. Numerous research works have been conducted in the past with the intention to explore the growth prospects and analyse the financial performance of mutual funds at all levels in developed as well as developing nations. Section below presents a brief overview of those various research works which have been bifurcated into some specific categories. In Indian literature Gupta (1981) did the ground work on performance evaluation with his research work on performance evaluation of Indian equities. This revolutionary research work in Indian milieu has been the most important contributor in this domain and has been considered as the yardstick in context of research on equities for the particular time period.

There is no skepticism that investor's unlike risk therefore the acceptance of total risk is not mandatory for investors. Consequently, Investors can seize the benefits associated with diversification. As with the facilitation of diversification; uncertainty associated with unsystematic risk can be eliminated. As it is apparent that majority investors are risk averse. But this does not insinuate that investors will not take any type of risk. Sankaran (2012) found that investors and financial intermediaries ought to come out of their predisposition to affix them together on a specific quantitative factor- Return. It has to be acknowledged that return and risk have a direct proportional relationship and most importantly, risk can also be quantified. These facts have also been worked upon by Judith (1997) as his study revealed that both these variables are correlated. There are numerous types of risks linked to mutual funds in financial markets. These risks can be assessed using various techniques like variance analysis, standard deviation, Beta etc. Researching about the impact of associated risks; Santhi and Gurunathan (2012) found that past performances of the funds does not reflect future as the quantum and direction of risk varies every time in all the schemes. These findings have also been supported by Koski and Pontiff (1996) that there is an inverse co-relation amongst fund risk and its past performance. Return is the most imperative means for stimulating people to invest. Returns are based on risk levels; which mean higher the extent of risk- superior would be the return and inferior the level of risk-lower would be the level of returns. Every investor has a pre defined tolerance zone which signifies the maximum and minimum measurement of risk. In this framework a highly relevant standpoint has been quoted by Chou et al. (2010) that trading experience of investors impacts the risk taking tendency of investors and investors with long trading experience have a propensity to bear higher risk as compared to investors with less or no trading experiences. Study done by Ippolito (1992) reported that investors have a preference towards mutual funds which have a profile of persistent returns in the previous years. This conclusion has also been supported by Fisher and Statman (2000) in their paper. Sapar et al. (2003) advocated that majority mutual fund schemes outstripped the investor's anticipation about returns presenting mutual funds as a rewarding source of earnings. These results were also supported by Prajapati and Patel (2012), even though sampling frame, time horizon, and location were different. As quoted by Fowdar (2008) in his paper that Brinson et.al. (1991) and Elkin (1999) stated that asset allocation is by far the most important factor which ascertains the returns that a portfolio would spawn over time. Along with these factors investors positively consider some other attributes of a fund before investing. As aptly presented by Lancaster (1966) in the form of a multi attribute model of consumer choice. He advocated the notion that decisive consumer utility is innate in the characteristics that a fund or a product possesses, rather than the product itself. Agarwalla et al. (2013) research work is based on fund characteristics factor like size and value factors, which are based on Fama and French model. Their research work found that size factor results in negative cumulative return and there was a high correlation of value factor and cumulative returns. It has also been utilized by Grinblatt and Titman (1989a) as one of the eight factors for portfolio selection. Fund size is one of the most vital characteristics of fund as it can make or spoil any portfolio as researched by Pollet and Wilson (2008); Chen et.al (1992); Ang et.al (1998); Golec (1996). Shukla and Inwegen (1995) also supported this notion and contended that bigger funds, being managed by larger staff, are able to provide more accurate information and therefore help investors to choose the perfect portfolio according to their needs. Modern day contemporary authors and market practitioners have sensed the requisite related to comprehend additionally about the firms which offer mutual funds to investors. Due to extensive range of funds availability, fierce competition among fund houses along with presence of international investment options have made today's investors brand image cautious and all this moulds his investment decisions accordingly. As quoted by Kozup and Howlett (2008) brand image is an affective direction towards attitude building and attitude change. Sunder (1998) and Gupta (1988) have mentioned in their research work that brand image and return are the key deliberations during the process of endowing funds in mutual funds. Presently, the literature has identified the requirement of more understanding about the fund families, impact of their decisions, management structures etc. Nearly every mutual fund is a member of some fund family. On evaluating them against stand alone funds, it has been revealed that a family has superior suppleness in transferring its human and other assets according to market prospects. Regardless of the pervasiveness of the family organization, not much research has been conducted on the outcomes or significance of family membership. Till today, even though fund size has a considerable impact on fund performance, there is little literature accessible. Also there are conflicting views in this regard. Some favor large fund size pointing towards its benefits like more research resources, lower expense ratio like Chen et al. (2002). A new-fangled term with respect to mutual fund return is "spillover effects" between funds in a family. Spillover effect is a situation when a superior performance by one fund augments cash proceeds to other funds in the family too and it has been strongly supported by Khorana and Servaes (1999) in their research. Ivkovic (2001) reports a positive spillover impression amongst fund family members. Strategic elements in the accomplishments of mutual funds are the blended endeavors of effective and efficient fund managers and well alarmed investors. Major responsibility of a proficient fund manager is to canvass the behavior of investors and comprehend their quests and expectations to invest their funds in such a way which could help them achieve their goals. Available literature cites various parameters which influences the performance of a fund manager and amongst the various selected parameters manager's experience is a crucial factor as his experience, exposure to varied situations; varied clientage bestows him with the wider perspective of situations and better client handling techniques. Golec (1996) expresses his astonishment regarding whether work experience of fund manager affects his performance in any way? In this regard Sharpe (1966); Jensen (1968) has disapproved the presence of any midas touch of managers to subdue a risk adjusted market portfolio returns. Market phase in which a fund enters a market affects his performance considerably and McClarnon (2004) has also shown the association among the two. As already discussed mutual funds have various associated costs. Among those a significant chunk has been occupied by manager's fee. An empirical research by Prince and Bacon (1990) reported that no copesetic and essential framework representing the relationships amongst the security selection and market timing skills of active fund managers exists in present scenario and need is expressed of the same in the concerned research work. Due to which security selection aptitude and market timing ability of fund managers have also been analyzed and concluded that ineffective asset assortment potential and depressing market timings are some of the traits of an average portfolio manager. Figure. 1 shows the theoretical proposed model framed on the basis of factors identified affecting mutual fund performance on the basis of available literature canvass.

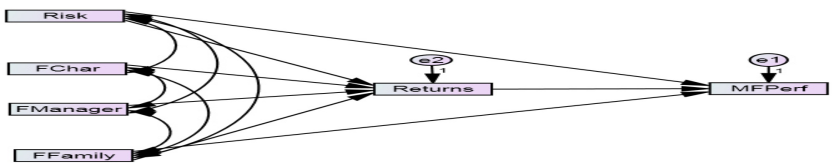

Figure 1: Theoretical Proposed Model

Following hypotheses have been framed with the intention of serving the predetermined objectives of the study and analyzing the proposed relationships amongst the independent, mediating and dependent variables:

Risk: H_{RI1} Risk associated with an investment has a significant relationship with mutual fund performance

Return: H_{RE1} Returns of an investment have a significant relationship with mutual fund performance.

H_{RE2} Returns of an investment have a significant relationship with its associated risk.

H_{RE3} Returns of an investment have a significant relationship with the funds characteristics.

H_{RE4} Returns of an investment have a significant relationship with its fund family.

H_{RE5} Returns of an investment have a significant relationship with its fund manager.

H_{RE6} Returns positively and partially mediates the positive relationship between risk and mutual fund performance.

H_{RE7} Returns positively and partially mediates the positive relationship between fund characteristics and mutual fund performance.

H_{RE8} Returns positively and partially mediates the positive relationship between fund family and mutual fund performance.

H_{RE9} Returns positively and partially mediates the positive relationship between fund manager and mutual fund performance.

Fund Characteristics: H_{FC1} Fund Characteristics have a significant relationship with mutual fund performance.

Fund Family: H_{FF1} Fund Family has a significant relationship with mutual fund performance.

Fund Manager: H_{FM1} Fund Manager has a significant relationship with mutual fund performance.

2 Data Set

This research study's population is aimed at all the mutual fund investors including present as well as past investors in the area of Delhi/NCR including Gurugram and Noida. Non probability sampling methodology was deemed suitable for this research due to the focused and the scientific features of the concerned research problem. The researcher used quota sampling and within the strata's systematic random sampling was utilized for the purpose of questionnaire filling. For the purpose of the study all the cities Delhi/NCR were divided into four zones. Each zone represents strata where the South Zone is the South Strata being represented by zone 1, North Zone is North Strata being represented by zone 2, West zone is West Strata being represented by zone 3 and East Zone is East Strata being represented by zone 4 along with Gurugram and Noida being represented by zone 5 and zone 6 respectively. From each zone purposive sampling is done by selecting 75 investors from each stratum. 450 investors were identified from the chosen populace to fill the questionnaire relating to the objective for determining the factors affecting mutual fund performance.

For mutual fund performance five determinants have been identified namely Risk, Return, Fund Characteristics, Fund Family, and Fund Manager. For each identified determinant pertinent scale items were taken from the scholarly literature and expanded into a research variables scaffold and one dependent variable and one mediating variable have also been extracted to measure the outcomes. Dependent variable is "Mutual Fund Performance" and mediating variable is "Return". Data has been gathered through the questionnaire mode.

3. Data Screening

In this study, due care has been taken during the questionnaire filling process that no question should be left unanswered. During the online filling of questionnaire as well all the content related relevant questions were made compulsory to fill, absence of which will make the submission of questionnaire impossible. So no missing values in this data have been found. A customary methodology for the discovery of multivariate outliers is the computation of the squared Mahalanobis distance (D2) for all the cases. An assessment of these values has been done which exhibits minimal evidence of serious multivariate outliers. While checking the normality of the data, we find univariate kurtosis value and its critical ratio (i.e., z-value) listed for each of the 25 MPerf items. As shown no positive values could be seen and negative values range from –.155 to –1.121 capitulating a total mean univariate kurtosis value of -.933. The standardized kurtosis index (β2) in a normal distribution has a value of 3, with larger values symbolizes positive kurtosis whereas smaller values symbolizes negative kurtosis. Using the value of 7, given by West et al. (1995) as the benchmark, an assessment of the kurtosis values reported in "Kurtosis Table" show that no item is significantly kurtotic. Next statistical consideration is the index of multivariate kurtosis and its critical ratio, both of which come into view at the bottom of the kurtosis and critical ratio (C.R.) columns, respectively. Most crucial value here is the

C.R. value, which in real meaning corresponds to Mardia's (1970, 1974) normalized estimate of multivariate kurtosis. In this application, the z-statistic of .146 is substantially indicative of normality in the sample. Multicollinearity is not desired in the data as it signifies that our data does not explain exclusive discrepancy in the dependent variable. In this research work, it has been checked by Variable Inflation Factor (VIF) for all the independent variables by running a multivariate regression. Coefficients Tables "Collinearity Statistics" shows that values of VIF in all the cases are less than 3, which as a thumb rule is a case of "No Problem". This shows that all the independent variables in the study are able to explain an exclusive discrepancy in the concerned dependent variable.

4. Reliability and Validity of the Questionnaire

In every case the statistical reliability of each variable was evaluated prior it to being subjected to validation scrutiny (Kline, 1998). These values extending from satisfactory to very good exhibit that the constructs are reliable. Their summary statistics have been shown in Table 1

Table 1: Reliability Statistics

Cronbach's Alpha	N of Items
.878	25

As seen in the above table the Cronbach Alpha coefficient of the 'Performance of Mutual Funds' scale is 0.878. This is above the ideal value of Cronbach Alpha i.e. 0.7 indicating that the scale items used is reliable statistically and has a reasonable internal consistency.

Validity of a questionnaire measures the extent to which the items in the questionnaire evaluate what the researcher wants to measure. Higher level of validity signifies precise results to authentic values. For this, Validity has been checked on the basis of following parameters namely face validity, criterion related validity and construct validity.

To obtain the face validity and criterion related validity of the questionnaire, senior experienced academicians, researchers, professionals were asked to mention their impressions regarding the variables after duly examining the variables. Furthermore they were also asked to demonstrate whether the operational meanings of the variables relate to the basic notion of research study. Subsequently, the language of the statements was revised in the questionnaire according to the proposals and suggestions of the specialists.

Table 2: Convergent Validity and Discriminant Validity Indices for the factors in consideration

Factors	Number of Items	Cronbach Alpha co-efficient	Average Variance Explained	Maximum Shared Variance
Risk	4	.898	0.541	0.219
Return	5	.854	0.575	0.075
Fund Characteristics	4	.824	0.555	0.075
Fund Family	4	.862	0.558	0.219
Fund Manager	4	.892	0.542	0.171
Mutual Fund Performance	4	.890	0.621	0.060

Convergent Validity and Discriminant Validity measures have been used for Construct validity and shown in Table 2. The Cronbach alpha values for all the constructs are higher than the mandatory threshold. Average Variance Explained too has crossed the required cut-off threshold of 0.5. This exhibits that all indicators successfully evaluate the construct they belong to. Moreover, the MSV also is lower than AVE which is an adequate indication to validate that the constructs vary from each other.

5. Data Analysis

5.1 Bartlett's Test of Sphericity

As seen from the outcome of KMO sampling adequacy in Table 3 the EFA is appropriate as the significance value of Bartlett's Test of Sphericity in this research is p= 0.000.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.768**
Bartlett's Test of Sphericity	Approx. Chi-Square	4710.726
	Df	300
	Sig.	.000

Considering the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (MSA) for individual variance it was discovered that there is enough correlation amid the factors. The sampling adequacy value of Kaiser-Meyer-Olkin MSA was found to be 0.768 indicating that the sample was sufficiently decent for sampling.

5.2 Exploratory Factor Analysis for Determinants of Mutual Fund Performance

PCA technique was conducted for data extraction which helps in finding the factors which determine the underlying relationship among the various variables. Table 4 shows that there are only six factors, each having Eigen value exceeding 1 for Mutual fund performance. The Eigen values for six factors were 5.184, 3.484, 2.551, 2.062, 1.866 and 1.600. The index to determine the total factor solution has been drawn from % of total variance explained which in our case 67.563% for mutual fund performance is. That implies that 25 factors have been narrowed down to 6 factors and in this process 32.437% of data has been lost while finding out the factors for mutual fund performance. Varimax rotated factor analytic results for factor mutual fund performance have been used for the analysis purpose in this study.

Table 4: Exploratory Factor Analysis

Factor No 1:Risk	**% of Variance Explained**		
Items	**Factor Loadings**	**Extraction Sums of Squared Loadings**	**Rotation Sums of Squared Loadings**
Past performance of a fund helps in analyzing various types of risks associated with the fund.	.765	20.736	12.869
Investor's age and their risk appetite have a negative relationship.	.762		
More the market fluctuations more will be the risk involved.	.738		
Risk is more in long time duration investments.	.833		
Factor No 2: Return			
Higher the firm value, higher would be the returns	.734	13.918	12.458
Asset allocation plays a prominent role in gaining returns.	.771		
Higher expense ratio results in higher returns.	.734		
Investment style plays a crucial role in anticipating returns.	.821		
Turnover of mutual funds (sales during the period) affects their associated returns	.880		
Factor No 3:Fund Characteristics			
Mutual Fund's size is directly related to higher performance.	.856	10.202	10.801

Fund Age helps a fund to develop its credibility in the market.	.789		
Innovativeness in mutual fund schemes makes them popular.	.820		
Availability of tax benefits helps in selecting a mutual fund.	.719		
Factor No 4:Fund Family			
Fund family size determines the pattern of returns, a fund will provide.	.765	8.842	10.697
Firms opting for outsourcing portfolio management function are making mutual funds economical.	.741		
Spillover effect has a positive effect on fund family's market share.	.807		
Brand value of a fund family attracts higher cash inflows in mutual funds.	.690		
Factor No 5: Fund Manager			
Market timing ability of fund manager highly affects the performance of a mutual fund.	.793	7.465	10.434
Fund managers reputation plays a crucial role in selecting a mutual fund.	.684		
Practical market experience of fund manager helps in achieving financial goals of the investors.	.814		
Management fees charged by fund manager are justified corresponding to their services	.788		
Factor No 6: Mutual Fund Performance			
Management structure of a fund positively affects the performance of a mutual fund	.859	6.400	10.303
Country of origin effects the performance of a fund.(Domestic or International)	.875		
Regular returns are of prime importance for an investor.	.852		
Changing banking policies makes mutual funds a risky investment option.	.854		

6. Confirmatory Factor Analysis for Determinants of Mutual Funds Performance

6.1 Individual Construct –Measurement Models

Zero - order CFA is conducted for all underlying constructs. Various model fit indicators of measurement models relating to variables of mutual fund performance have been shown in Table 5. The model fit indices illustrated that the data of the measurement and model fit absolutely. All fit indices are at adequate levels representative of a good fit of the variable of Mutual Fund Performance. Concluding, zero order models of all the factors have given almost the same results.

Table 5: Measurement Model Indices

	CMIN(X2)	DF	CMIN/DF	P Value	CFI	GFI	RMSEA
Risk	3.957	2	1.979	0.138	0.996	0.994	0.052
Return	10.366	4	2.592	0.035	0.992	0.989	0.066
Fund Characteristics	1.842	2	0.921	0.398	1.000	0.998	0.000
Fund Family	0.543	1	0.543	0.461	1.000	0.999	0.000
Fund Manager	4.301	1	4.301	0.038	0.994	0.994	0.095
Mutual Fund Performance	10.249	1	10.249	0.001	0.992	0.986	0.158

6.2 First Order Model for "Mutual Fund Performance"

To estimate the goodness-of-fit of the model a number of measures of indices are employed as suggested by numerous eminent researchers like Hair et al. (1998).All item parcels loaded significantly onto their respective factors. Assessment of these indicators as exhibited in Table 6 depicts a satisfactory model fit. All measures accomplish the minimum suggested benchmark value requirements. Consequently, CFA model or measurement model can be understood to be a good fit model as shown in Figure 2.

Table 6: First Order Model Fit Indices

Fit Statistics	**Final CFA Model (25 items)**	**Desired Value**
GFI (Goodness fit index)	0.877	Close to 1.00
TLI (Tuck Willis Index)	0.894	Close to 1.00
NFI (Normed Fit Index)	0.864	.80 or higher
CFI (Comparitive Fit Index)	0.910	.80 or higher
RMSEA (Root Mean Square Error of Approximation)	0.066	.08 or lower

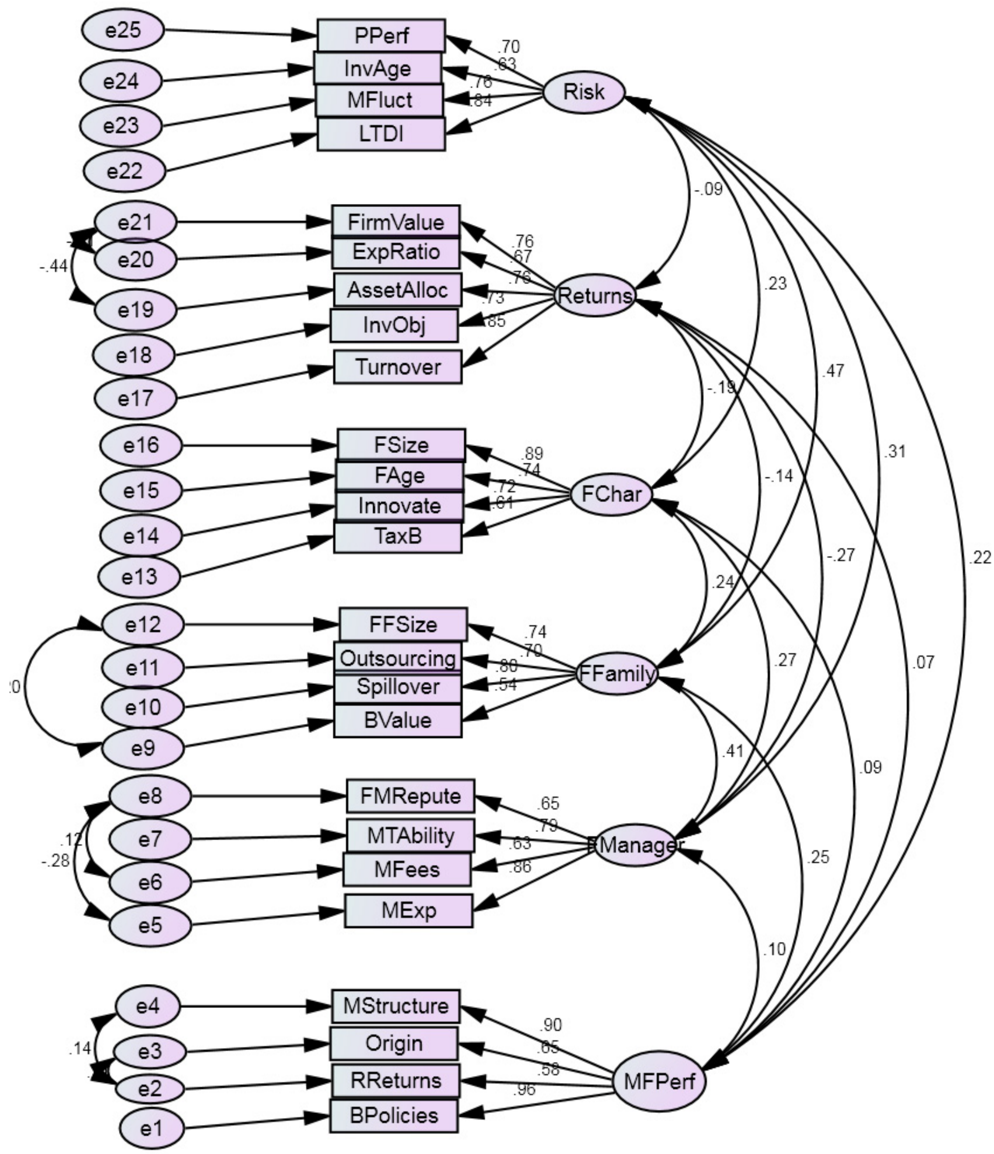

Figure 2: Measurement Model

6.3 Structural Equation Model: Analyzing the Proposed Model

A two step process was used for assessing the direct and indirect associations amongst the study variable. The structural model after deleting all the insignificant paths is demonstrated in Figure 3 and statistics have been shown in Table 7 and Table 8.

Table 7: Revised SEM model fit Indices

Fit Statistics	Revised CFA Model (25 items)	Desired Value
GFI (Goodness fit index)	1.000	Close to 1.00
NFI (Normed Fit Index)	.999	.80 or higher
CFI (Comparitive Fit Index)	1.000	.80 or higher
RMSEA (Root Mean Square Error of Approximation)	0.00	.08 or lower
CMIN/DF	0.135	5 or less

Table 8: Regression Weights

			Estimate	S.E.	C.R.	P	Result
Returns	<---	FChar	.179	.078	2.293	.023	Significant
Returns	<---	FManager	.329	.072	4.538	***	Significant
MFPerf	<---	Returns	.157	.058	2.721	.007	Significant
MFPerf	<---	Risk	.216	.083	2.590	.010	Significant
MFPerf	<---	FFamily	.342	.108	3.159	.002	Significant

Table 8 shows that in model all the required paths are significant. Therefore, the model is prudent and correspond the data

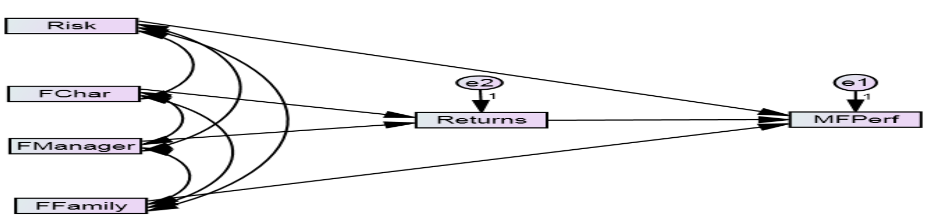

Figure 3: Perceptual Mutual Fund Performance Model (PMP Model)

In this study magnitude of the indirect effect is confirmed by bootstrapping technique. The test for mediation has been performed on the basis of stages depicted by Baron and Kenny (1986); Judd and Kenny (1981).

Mediating effects of the constructs FChar and FManager and Return were systematically tested. The null hypothesis of no mediation is rejected and it is deemed to have some evidence for full mediation. That is, the association amid the constructs of fund characteristic and mutual fund performance is mediated by the construct of returns. Secondly, the construct of returns mediating the affiliation amongst the constructs of fund manager and mutual fund performance is also significant (p-value = ***). Therefore, it is concluded that the construct of mutual fund performance can explain the construct of fund manager through the construct of returns. The outcomes of the mediation tests are recapitulated in Table 9. As illustrated in the last column of the table, all the indirect relationships have been found to be statistically significant between fund characteristics, fund manager and returns

Table 9: Direct and Indirect Effect

Direct Effect-Regression Weights (Step 1)							
			Estimate	**S.E.**	**C.R.**	**P**	**Results**
MFPerf	←	Risk	.212	.085	2.494	.013	Significant
MFPerf	←	FChar	.030	.091	.328	.743	Non Significant
MFPerf	←	FFamily	.332	.119	2.798	.005	Significant
MFPerf	←	FManager	.055	.084	.656	.512	Non Significant
Indirect Effect-Regression Weights (Step 2)							
			Estimate	**S.E.**	**C.R.**	**P**	**Results**
Returns	←	FChar	.174	.077	2.275	.023	Significant
Returns	←	FManager	.322	.065	4.982	***	Significant

In this study 2000 bootstrap sample numbers have been used. Table 10 depicts the statistics

(p values) with a two tailed significance level of 95% after bootstrapping.

Table 10: Standardized Direct, Indirect and Total Effects - Two Tailed Significance

Standardized Direct Effects - Two Tailed Significance					
	FManager	**FChar**	**FFamily**	**Risk**	**Returns**
Returns	.001	.049	...	...	...
MFPerf	...	...	.002	.019	.004

Standardized Indirect Effects- Two Tailed Significance					
	FManager	**FChar**	**FFamily**	**Risk**	**Returns**
Returns	...	...	...	...	...
MFPerf	.002	.025	...	...	...

Standardized Total Effects - Two Tailed Significance					
	FManager	**FChar**	**FFamily**	**Risk**	**Returns**
Returns	.001	.049	...	...	...
MFPerf	.002	.025	.002	.019	.004

As it is clear that all the values are less than 0.05 so it is implied that there is significant direct effect on the construct of mutual fund performance of the constructs of fund family, risk and return. It is also evident that both the values concerning indirect effect are less than 0.05 so it is also implied that there is significant indirect effect on the construct of mutual fund performance of the constructs of fund manager and fund characteristics. The wide-ranging model sanctions the assessment of total effects on the determination of the constructs of risk, fund characteristics, fund family, fund manager, returns and mutual fund performance, surfacing from the arrangement of direct and indirect effects of measures and constructs. With consideration to the comparative magnitude of constructs or measures on the construct of return towards mutual fund performance, the construct of fund characteristics have the strongest total effect, followed by the constructs of risk, fund manager and fund family. In the case of the construct of return, both the construct fund characteristics and fund manager have significant direct effect, fund characteristics being the stronger. The comparative magnitude of constructs of mutual fund performance shows a similar pattern with the construct of risk and fund manager. Where risk is the strongest effecting factor followed by returns and fund manager.

7. Hypothesis Results

Hypothesis H_{RI1} proposed that risk associated with an investment has a significant association with mutual fund performance. Results of the structural equation model imparted espousal for this hypothesis indicating that the associated risk levels affect the market performance of a mutual fund as mutual fund's main purpose is risk diversification. So, higher risk or lower risk will surely affect the performance of a mutual fund. Along with this, research studies either concerning asset speculation or fund speculations all the way through the years have substantiated that non-professional investors have an evident predisposition to concentrate on an investment's associated risk. As ultimate investment decision depends on the risk appetite of the retail investor. So, risk associated with an investment has a noteworthy affiliation with its mutual fund performance. Hypothesis H_{FC1} postulated a positive association amongst fund characteristics and mutual fund performance. The path coefficient amid fund characteristics and mutual fund performance were insignificant, non-supporting Hypotheses H_{FC1}. Fund characteristics have qualitative association with mutual fund performance. As various fund characteristics like fund age, innovation and above all tax benefits with which investors have more emotional and psychological connect than the actual saving or rebate they get by investing in mutual funds. So it needs to be quantified in terms of a mediator factor so that ultimately its effect on fund performance can be judged and investors can think of it as an influential decision making factor. Nonetheless, Hypothesis H_{FF1}, which anticipated a positive association amid fund family and mutual fund performance was backed by the data as fund family brand value, past performances affects the performance of mutual funds. Considering an investor's outlook, it is crucial for them to know whether to choose an Indian fund family for investment or an Off Shore fund. Along with this which attributes of chosen category of fund family should be considered while making the ultimate investment decision. A mutual fund belongs to which fund family has been given very high importance or ranking by investors in various researches. According to investors, a reliable fund family name gives them sense of security towards their funds. But this fund family impact is possible only for funds with an influential history as new funds will not be able to get benefit of this concept. In turn, Hypothesis H_{FM1} addressed important role played by a fund manager in mutual fund performance which has not been statistically supported. One most important reason of non acceptance of this factor as a direct influential of fund performance is that, this factor is in backdrop and majority of the investors do not have idea about who is managing their investments. Only a very small number of investors, who are fully aware and have updated knowledge, keep track of fund manager's performance, tenure, turnover etc. Another reason is that due to incredulous aura of fund managers and many reported instances of difference of opinion about the investment style and market timing ability of fund managers, this factor has not been found relevant decision influencer. Another notion reported in many researches is that success of a fund may be due to luck and not by skills of fund manager. H_{RE1} states that returns of an investment have a significant relationship with mutual fund performance.

This hypothesis has been accepted. As Ippolito (1992) deduced that investors desire mutual funds which have a profile of positive returns in the earlier period. It is the only incentive of investment. Return has always been a very vague concept with relation to an investment and corresponding to that investment's performance or market success/failure. To test the notion whether market returns really have a significant relationship with mutual fund performance, returns have been treated as a mediator and following hypothesis have been framed:

H_{RE2} states that returns of an investment have a significant relationship with its associated risk.

This hypothesis has been not accepted. As according to Bowman's Risk-Return Paradox (1980) there is an indirect relationship between risk and return. And it has been concluded by Brockett et al. (1992) and Cooper et al. (2011) that this paradox could happen in Mutual funds Industry as well. As there are various other factors which may affect return with risk being constant. So, Bowman's paradox is the probable reason for non acceptance of this hypothesis. Risk has a direct relationship with mutual fund performance because available literature has confirmed that an investor's ultimate investment decision depends on his risk appetite and a cautious investor will try to counterbalance the associated risk by accumulating an affordable number of mutual funds with favourable risk-return profile in a miscellany of various fund classes. Hence, these are the probable reasons why relationship between risk and mutual fund performance has not been mediated by returns. H_{RE3} mentioned that returns of an investment have a significant relationship with the funds characteristics. This hypothesis has been well accepted. Fund characteristics have qualitative association with mutual fund performance. So it needs to be quantified in terms of returns and then ultimately its effect on fund performance can be evaluated. H_{RE4} mentioned that returns of an investment have a significant relationship with its fund family. This hypothesis has not been accepted. Like risk, investors have a direct connect with the fund family name also. Many researchers have already proven that investors stay even with the loosing funds if they have brand loyalty towards that fund family. H_{RE5} states that returns of an investment have a significant relationship with its fund manager. This hypothesis has been well accepted. As a fund manager is valued only if he is able to give returns to its investors whether due to his luck or by his skills. So a fund manager has a direct effect on the returns of the portfolio of mutual funds which he is managing. H_{RE6} mentions that returns positively and partially mediates the positive relationship between risk and mutual fund performance. This hypothesis has not been accepted**.** As risk does not have a direct relationship with returns as available literature has confirmed that an investor's ultimate investment decision depends on his risk appetite and a cautious investor will try to counterbalance the associated risk by accumulating an affordable number of mutual funds with favourable risk-return profile in an assortment of various fund classes. Therefore, returns do not positively and partially mediate the positive relationship between risk and mutual fund performance.H_{RE7} states that returns positively and partially mediates the positive relationship between fund characteristics and mutual fund performance. This hypothesis has been well accepted because fund characteristics needs to be quantified in terms of a mediator factor so that ultimately its effect on fund performance can be judged. Fund characteristics have qualitative association with mutual fund performance. And returns are the quantitative measure through which the impact of fund characteristics is judged by the investors. So, above mentioned various reasons explain that returns positively and partially mediate the positive relationship between fund characteristics and mutual fund performance. H_{RE8} states that returns positively and partially mediates the positive relationship between fund family and mutual fund performance. This hypothesis has not been accepted as fund family of a mutual fund has been given very high importance by investors in various past researches. The notion of positive relationship between fund family and mutual fund performance has also been supported by the data analysis output of this research. Akin to risk, investors have a direct association with the fund family name also. Many researchers have already proven that investors stay even with the loosing funds if they have brand loyalty towards that fund family. H_{RE9} mentions that returns positively and partially mediates the positive relationship between fund manager and mutual fund performance. This hypothesis has been accepted**.** There is a direct relationship amongst returns and the mutual fund performance. Mutual fund performance and fund manager does not have a direct relationship. One of the most important reasons is that, this factor is in backdrop and majority of the investors do not have idea about who is managing their investments. Another major psychological block hindering the acceptance of relevance of this factor is that due to incredulous aura of fund managers and many reported instances of difference of opinion about the investment style and market timing ability of fund managers. Many researchers have also reported the notion that success of a fund may be due to luck and not by skills of fund manager. Returns and fund manager have a direct collaboration in deciding the fate of a fund in market as a fund manager is valued only if he is able to give returns to its investors whether due to his luck or by his skills. So a fund manager has a direct effect on the returns of the portfolio of mutual funds which he is managing.

From the perspective of managerial implications, rationally, the findings of this study can assist fund management companies to enhance sponsor activities of their funds to the potential mutual fund investors. The research work would furthermore facilitate the present mutual fund companies, and present and potential institutional and individual investors, researchers, and policy makers to find an impression of the kind of affiliation amid the investment approaches and performance of mutual funds especially in the Indian context, which will have extensive insinuations for: Framing aggressive market stratagem, Bringing individual investor in the focus of decision making, Designing suitable guidelines as well as strategies beneficial to the wholesome progress of Indian mutual funds market. This research was restricted to those paradigms and outlines which are believed to be most suitable for mutual fund performance evaluation as this study found the gap on the basis of those prevailing methods and models only. Future scope of this study is that qualitative aspect of decision making can also be added with this quantitative factors based model and a new comprehensive model can be framed. A comparative study between present investors and non- investors of mutual fund performance can also be conducted to get an insight into the reasons as why people are hesitant in investing their funds in mutual fund.

The comprehensive contribution of the present research study is a model delineating the determinants which have an impact on the decision making process of investors about mutual funds. PMP model has enlarged our perceptive and our awareness about the most crucial determinants of mutual fund performance in Indian market by integrating theories from the mutual fund literature. This study can be used to design further research in the area of mutual funds by focusing on other factors which have not been examined in present research work. These results can be used to steer advanced research by numerous researchers and academicians pursuing research in the various facets of mutual funds.

References:

Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, *103*(3), 411-423.

Bar, M., Kempf, A., & Ruenzi, S. (September 2005), "Team Management and Mutual Funds", Center for financial Research, Working paper.

Blake, C., Elton, E., Gruber, M.(1993), " The performance of bond mutual funds", Journal of Business, 66 (3)

Blake, D., Timmermann, A. (1998)," Mutual fund performance: Evidence from the UK", European Finance Review, (2) 55-77

Blinder, A. S., and J. Morgan, (2000), "Are Two Heads Better Than One?: An Experimental Analysis of Group vs. Individual Decision making", Working Paper

Bone, J., J. Hey, and J. Suckling, (1999), "Are Groups More Consistent than Individuals?", Journal of Risk and Uncertainty, 18, 63 – 81.

Bowman, E. (1980)," A risk-return paradox for strategic management". Sloan Management Review, 21(3), 17-31.

Brinson, P., Hood R., Beebower, L., (July-August 1991), "Determinants of Portfolio Performance", Financial Analysts Journal, pp 39-44.

Brown S J, Goetzmann W. N, (1995), "Performance Persistence", Journal of Finance, 50, pp 679-98.

Capon, N., Fitzsimons, G., Prince, R., (1996), " An individual level analysis of the mutual fund investment decision", Journal of Financial Services Research, Vol. 10, (1), pp. 59-82.

Casarin, R., Lazzarin, M., Sartore, D., (2002), "Performance, Style and Persistence of Italian Equity Funds", GRETA , Venice.

Chen, C., (1992), "A Cross- Sectional Analysis of Mutual Funds Market Timing and Security Selection Skills", Journal of Business Finance and Accounting, Vol. 19, no. 5.

Chen, C., (1992), "A Cross- Sectional Analysis of Mutual Funds Market Timing and Security Selection Skills", Journal of Business Finance and Accounting, Vol. 19, no. 5.

Collis, J. and Hussey, R. 2003. Business Research: A Practical Guide For Undergraduate And Postgraduate Students, Great Britain, Palgrave Macmillan.

Cooper, W., Ruefli, T., Wilson, C. (2011)," Strategy and implementation: Quantitative evaluation of strategic performance with application to mutual funds", McCombs Research Paper Series No. IROM-09-11, 1-44. Retrieved from http://ssrn.com/abstract=1963927

Dangl, T., Wu, Y., Zechner, J. (2008)," Market discipline and internal governance in the mutual fund industry", Review of Financial Studies, 21, 2307–2343.

Das, S., and R. Sundaram, (2002); "Fee Speech: Signalling, Risk-Sharing and the Impact of Fee Structures on Investor Welfare", Review of Financial Studies, 15(5), 1465-1497

Dorbetz, W., Köhler, F.(2002), " The contribution of asset allocation policy to portfolio performance", Financial Market Portfolio Management, 16, 219–233

Elkin, L., (1999). How important is asset allocation, www.frontier.com

Elton, E. J., Gruber, M. J. (1997), "Modern Portfolio Theory 1950 to date". Journal of Banking and Finance, 27, 1743-1759.

Evans, J. L., Archer, S.H. (1968), "Diversification and the Reduction of Dispersion: An Empirical Analysis, The Journal of Finance, 23(5), 761-767.

Fama, E. (1970), "Efficient capital markets: A review of theory and empirical work". The Journal of Finance, 25(2), 383–417.

Fisher, K., Statman, M. (2000), "Investor sentiment and stock returns", Financial Analysts Journal, Vol 56, pp 16-24.

Golec, J., (1996), "The effects of mutual fund managers' characteristics on their portfolio performance, risk, and fees", Financial Services Review 5, 133—148.

Grossman, S., Joseph E. (1980), "On the impossibility of informationally efficient markets", American Economic Review 70, 393–408.

Gruber, M. J. (1996), "Another Puzzle: The Growth in Actively Managed Mutual Funds," Journal of Finance, 51, 783- 810.

Gupta, S. (1988), "Impact of Sales Promotions on When, What, and How Much to Buy." Joumal of Marketing Research, 25, 342-355.

Hendricks, D., Patel, J., Zeckhauser, R. (1994), "Hot hands in mutual funds: Short-run persistence of relative performance 1974-1988", Journal of Finance 48, 93–130

Huij, H., Verbeek, M. (2009), "On the use of multifactor models to evaluate mutual fund performance", Financial Management, pages 75-102

Huij, J., Verbeek, M. (2007), "Cross-sectional learning and short-run persistence in mutual fund performance", Journal of Banking and Finance 31, 973–997.

Indro, C., Jiang, X., Hu, Y., Lee, Y. (May/June 1999), "Mutual Fund Performance: Does Fund Size Matter", Financial Analysts Journal, pp 74-87.

Ippolito, R. A. (1992), "Consumer Reaction to Measures of Poor Quality: Evidence from the Mutual Fund Industry," Journal of Law and Economics, 35, 45-70.

Jaideep, S., Majumdar, S. (July 1994), "Performance Evaluation of Mutual Funds in India", NMIMS Management Review 6 (11), pp 64-7

Jain, P. (1982), "Financial Institution in India-A Study of Unit Trust of India" ,Triveni Publications.

Jan, Y., Hung M. (2003), "Mutual Fund Attributes and Performance", Financial Services Review, Vol. 12, pp. 165- 178.

Jayadev, M., (1998), "Performance Evaluation of Mutual Fund Managers: An empirical evidence on Indian Mutual Fund", Applied Finance, Vol 5, No.2 .

Judd, C. M., & Kenny, D. A. (1981). Process analysis: Estimating mediation in treatment evaluations. Evaluation Review, 5, 602-619

Kerlinger, F.N. (1973), Foundation of Behavioural Research, New York, Holt, Rinehand and Hinston.

Khorana, A., (1996), Top management turnover: an empirical investigation of mutual fund managers. Journal of Financial Economics 40, 403–427.

Kline, R. B. 1998. Principles and Practice of Structural Equation Modelling, New York, The Guilford Press.

Koski, J., Pontiff, J. (1996) "How are derivatives used? Evidence from the Mutual Fund Industry", The Journal of Finance, Vol. 54, Issue (2), pp-791-816

Markowitz, H. (March 1952), "Portfolio Selection", Journal of Finance 7, no 1, pp 77-91.

Martin, G., Clifton, Green. (2004), "The impact of mutual fund family membership on investor risk", NYU and Emory working paper.

McClarnon, C. (2004), "Mutual Fund Market Timing", Compensations and Benefits Review, Vol.36(5), pp.25-31

Palomino, F., Prat, A. (2003), "Risk taking and optimal contracts for money managers", Rand Journal of Economics, 34(1), 113–137.

Perold, A., Robert, S. (1991), “The right amount of assets under management”, Financial Analysts Journal, 47, 31-39

Pollet, J., Wilson, M. (2008), “How Does Size Affect Mutual Fund Behavior?” The Journal of Finance, 63, 2941–2969.

Prajapati, K., Patel, M. (2012), “Comparative Study On Performance Evaluation Of Mutual Fund Schemes Of Indian Companies”, Researchers world, Journal of Arts, Science & Commerce Vol. III, Issue3 (3), July 2012, pp. 47-59

Rao, D. N. (2006), “Investment styles and performance of equity mutual funds in India”. DOI: http://dx.doi.org/10.2139/SSRN 922595

Rockenbach, B., Sadrieh, A., Mathauschek, B.(2001), “Teams Take the Better Risks”, Working Paper.

Roll, R. (1992); “A Mean/Variance Analysis of Tracking Error”, Journal of Portfolio

Sankaran S. (2012). Indian mutual funds handbook. Vision Books

Santhi N. and Gurunathan G. (2013). “The Growth of Mutual Funds & Regulatory Challenges”, Indian Journal of Applied Research, III (5).

Sapar, N., Madava,R., (2003) “Performance Evaluation of Indian Mutual Funds”. Available at SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=433100

Sharpe, W., (1966), “Mutual Fund Performance”, Journal of Business 39, no 1, part 2, pp 119-138.

Sharpe, W., (1992), “Asset Allocation: Management Style and Performance Measurement,” The Journal of Portfolio Management, 18, 7-19.

Shukla, R., Singh, S. (1997), “Equity Mutual Funds: Evidence from 1988-95”, Global Finance Journal, 8(2), pp 279-293.

Singh, B.(2012, March). A study on Investor's attitude towards Mutual Funds as an Investment option.’ International Journal of Research in Management. II (2).

Sirri, E. and P. Tufano, (1998), “Costly Search and Mutual Fund Flows,” Journal of Finance, 53, 1589-1622.

Smith, K., (1978), “Is Fund Growth Related to Fund Performance?”, Journal of Portfolio Management, Spring, 49-54.

Soongswang, S., Sanohdontree, S., (2011),”Open-ended equity mutual funds”, International Journal of Business and Social Science, 2(17)

Spritz, A., (1970), “Mutual Fund Performance and Cash Inflow,” Applied Economics, 2, 141-145.

Wagner, W. H., Lau, S. (1971). The Effect of Diversification on Risk. Financial Analysts Journal, 27(6), 48-53.

Wang, X., Yuan, D., (2006), "Persistence in mutual funds returns: Chinese evidence", Statistic and Strategy, Vol.1, pp 137-138

West, S, G., Finch, J, F., Curran, P, J.,(1995), Structural equation models with non normal variables: problems and remedies. In: Hoyle RH, editor. Structural equation modeling: Concepts, issues and applications. Newbery Park, CA: Sage;. pp. 56–75.

An Empirical Study of the Causes of Non Performing Assets in the selected Indian Public Sector Banks

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Abstract

It is said that India is likely to emerge as the third largest domestic banking market in the world in the next three decades. The country has bank based financial system where banks and financial institutions are the principal intermediaries for the commercial sector credit. But the mounting levels of Non-performing assets of banks are one of the major hurdles in the way of socio-economic growth and development of India. *The problem of NPA is not limited to Indian banks only. In fact, this is the problem of almost all countries of the world, no matter country is developing, developed or poor. Indian government has already taken number of initiatives in this direction. Among these Securitization Act 2002 is most significant to solve the problem of NPAs. The study observes a number of factors responsible for the generation of NPAs which are important and peculiar to India. like, negligent project appraisal system, political interference and incorrect projections of further demand in the industrial sector, coupled with recession in the last few years, have resulted in the default of many bank accounts, resulting in 'non performing assets'.* The *empirical study employ both simple and advanced statistical tools: non- parametric statistical tests based on* ***Chi-square test*** *and* ***five point Likert scale*** *has also been used to quantify the intensity of the respondents' attitudes towards the selected attributes.*

KEY WORDS: *NPA, Banking, Loan, Asset, credit*

1.0 Introduction:

As long as an asset generates income expected from it, it is treated as "performing asset" and when it fails to generate income, a loan asset become "NPAs". The problem of NPA is not limited to Indian banks but in fact, this is the problem of almost all countries of the world, no matter country is developing, developed or poor. India is interesting case to study as the problem of NPAs is very stark in Indian banks especially in the Indian public sector banks. In is said that in the current fiscal, gross non-performing assets (NPAs) of Indian banks are seen edging up by 20 basis points (bps) to 4.5 per cent of advances - or rise by Rs. 600 billion to four trillion.

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According to Crisil, worryingly, exposure of banks to vulnerable sectors is expected to remain high, just the way it was in 2014-15," According to Crisil, bad loans are seen rising mainly because of withdrawal of regulatory forbearance on restructuring, and high slippages from restructured assets. As much as 40 per cent of assets restructured between 2011- 14 have degenerated to NPAs. It cannot be denied that mismanagement, willful default, fund diversion and siphoning off of funds, delay in project completion, changes in industrial policy, and the dropping interest rate regime have contributed tremendously to rendering several assets sick. Though the NPAs of the Indian financial system are not as alarming as those of pre-crisis South Asia or China, but they are still quite high Countries such as Korea, China, Japan, Taiwan have a well functioning Asset Reconstruction/Recovery mechanism wherein the bad assets are sold to an Asset Reconstruction Company (ARC) at an agreed upon price. In India, there is an absence of such mechanism and whatever exists, it is still in nascent stage. Therefore, it is high time for the Indian banking sector to solve the problem of NPA.

2.0 Review of literature

The NPAs are considered as an important parameter to judge the performance and financial health of banks. The level of NPAs is one of the drivers of financial stability and growth of the banking sector (Vallabh *et al*, 2007). Evidence from across the world suggests that a sound and evolved banking system is required for sustained economic development. India has a better banking system in place *vis-a-vis* other developing countries, but there are several issues that need to be tacked out (Kaul, 2005). Among these, Non Performing Assets is biggest issue of concern (Vittal, 2002). study made by the Reserve Bank of India states that, compared to other Asian countries and the US, the gross non-performing asset figures in India seem more alarming than the net NPA figure (Narshimam, 1999). In the banking literature, the problem of NPLs has been revisited in several theoretical and empirical studies.

2.1 Objectives of the Study

- To study the causes (internal and external causes) of NPAs in the Indian public sector banks
- To Study the regulatory frame- work for managing the NPAs in the Indian public sector banks
- To Study the impact of SERFAESI Act in reducing the problem of NPAs
- To suggest the strategies to manage the problem of NPAs’ in Indian public sector banks

2.12 Hypotheses of the Study

H1 It is hypothesized that there is no relationship between internal and external factors causing NPAs in Indian public sector banks

H2 It is hypothesized that regulatory frame-work plays significant role in the control of NPAs in the Indian public sector banks

H3 It is hypothesized that SRFAESI Act has no impact on reducing the problem of NPAs

3.0 Research Methodology

Research Types: The present research is mainly of quantitative nature. The Research design is exploratory design. Further, the study formulates more precise research problem by developing hypotheses. Since the scope of the study is very vast, the present study also represents some characteristics of descriptive research design. Sampling Technique used in the study is non probability convenient sampling. For analysis and interpretation both simple and advanced statistical tools: non-parametric statistical tests based on Chi-square test and five point Likert scale has also been used to measure the intensity of the respondents attitudes towards the selected attributes. 60 bank branches from public sector (State Bank of Group and Nationalized Banks) located in Delhi, Haryana and Punjab were selected & one respondent (Branch Manager) was selected from each bank branch. Thus sample size is total 60.

4.0 Results and Findings:

4.1 Internal Factors as Causes of Bad Loans

To study the various factors causing bad loans were developed as parameters by the researcher. Table 1 indicates that majority of the respondents showed their acceptance regarding all the parameters indicating the reasons how internal factors cause bad loans. 45 percent of the respondents were strongly agreed with parameter E1, whereas 35 percent supported them.

Table 1: Internal factors /causes of bad loans in the selected banks.

Parameters (Coding)	**SA**	**A**	**N**	**D**	**SD**	**Total**
Appraisal (E1)	27 (45.00)	21 (35.00)	2 (3.33)	5 (8.33)	4 (6.67)	60 (100)
Managers have poor skills in credit scoring (E2)	24 (40.00)	25 (41.67)	1 (1.67)	4 (6.67)	6 (10.00)	60 (100)
Managers have lack of motivation (E3)	23 (38.33)	22 (36.67)	2 (3.33)	7 (11.67)	6 (10.00)	60 (100)
Managers are not fully competent in appraising the value of collateral (E4)	25 (41.67)	23 (38.33)	3 (5.00)	4 (6.67)	5 (8.33)	60 (100)
No administrative penalties (E5)	20 (33.33)	19 (31.67)	2 (3.33)	10 (16.67)	9 (15.00)	60 (100)
Target Completion (E6)	26 (43.33)	22 (36.67)	1 (1.67)	6 (10.00)	5 (8.33)	60 (100)
Monitoring and Controlling						
Efforts to reduce costs (E7)	21 (35.00)	18 (30.00)	4 (6.67)	6 (10.00)	11 (18.33)	60 (100)
Lack of efforts on part of managers (E8)	18 (30.00)	19 (31.67)	7 (11.67)	9 (15.00)	7 (11.67)	60 (100)
Lack of manpower (E9)	28 (46.67)	18 (30.00)	2 (3.33)	4 (6.67)	8 (13.33)	60 (100)
Lack of focus of the top management (E10)	30 (50.00)	10 (16.67)	5 (8.33)	8 (16.67)	7 (11.67)	60 (100)
Seizing and disposing of collateral (E11)	22 (36.67)	21 (35.00)	3 (5.00)	5 (8.33)	10 (16.67)	60 (100)
Bad pre section scrutiny (E12)	20 (33.33)	13 (21.66)	9 (15)	10 (16.66)	8 (13.33)	60 (100)

Note: Figure in parenthesis indicate percentage

Table 1.1: Analysis of Table 1

Variable name	Parameters	Mean score	Rank
E1	Appraisal	3.98	1.5
E2	Managers have poor skills in credit scoring	3.95	4
E3	Managers have lack of motivation	3.82	6
E4	Managers are not fully competent in appraising the value of collateral	3.98	1.5
E5	No administrative penalties	3.52	12
E6	Target Completion	3.96	3
Monitoring and Controlling			
E7	Efforts to reduce costs	3.53	10.5
E8	Lack of efforts on part of managers	3.53	10.5
E9	Lack of manpower	3.90	5
E10	Lack of focus of the top management	3.80	7
E11	Seizing and disposing of collateral	3.72	9
E12	Bad pre section scrutiny	3.78	8

From the ranking of the mean score in the table 1.1, four important internal factors can be identified which causes the bad loans in the selected public sector banks. There are: (1) Appraisal, (2) Managers are not fully competent in appraising the value of collateral. The above two factors are most and equally important factors which causes the bad loans. Next two important factors which ranked at 3 and four are: Target completion and Managers have poor skills in credit scoring. It is also found that no administrative penalty is least important internal factor causes bad loans in the selected banks. It is also found that monitoring and controlling factors are least important than the general factors causing bad loans in Indian public sector banks

4.2 External Factors/ Causes of Bad Loans

Table 2 deals with the external factors /causes bad loans in the selected banks. To study these factors various parameters were developed & the responses to these parameters were collected and shown in the table in appendix. From the ranking of the mean scores in the table 3.1, three important external factors have been identified which causes of bad loans in the selected public sector banks and ranked as (1)

Economic down turn, (2) Influence from the central government and (3) Economic down turns. These three external factors are most important causes' bad loans. It is also found that the external factors i.e. Natural calamities resulting in crop failure and 90 days nonpayment time for account turning NPA too short are least important external factors causes' bad loans in selected public sector banks.

Table 3: External factors /causes bad loans

Parameters (Coding)	SA	A	N	D	SD	Total
Influence from the central government (F1)	26(43.33)	18(30.00)	4(6.67)	6(10.00)	6(10.00)	60(100)
Interference from the local government (F2)	30(50.00)	12(20.00)	2(3.33)	7(11.67)	915.00)	60(100)
Economic down turns (F3)	23(38.33)	26(43.33)	1(1.67)	5(8.33)	5(8.33)	60(100)
Political intervention (F4)	22(36.67)	20(33.33)	6(10.00)	8(13.33)	4(6.67)	60(100)
Willful defaults by borrowers (F5)	29(48.33)	16(26.67)	3(5.00)	4 (6.67)	8(13.33)	60(100)
Soft budget constraints (F6)	22(36.67)	20(33.33)	2(3.33)	8(13.33)	8(13.33)	60(100)
Intense competition (F7)	25(41.67)	15(25.00)	5(8.33)	9(15.00)	6(10.00)	60(100)
Insolvency (F8)	20(33.33)	24(40.00)	2(3.33)	7(11.67)	7(11.67)	60(100)
Business failure (F9)	28(46.67)	15(25.00)	4(6.67)	6(10.00)	7(11.67)	60(100)
Government policy (F10)	27(45.00)	12(20.00)	5(8.33)	5(8.33)	11(18.33)	60(100)
Natural calamities resulting in crop failure (F11)	18(30.00)	25(41.67)	3(5.00)	4(6.67)	10(16.67)	60(100)
90 days non payment time for a/c turning NPA too short (F12)	19(31.67)	22(36.67)	1(1.67)	9(15.00)	9(15.00)	60(100)

Note: Figure in parenthesis indicate percentage

Table 2.1: Analysis of Table 2

Variable Name	Parameters	Mean score	Rank
F1	Influence from the central government	4.06	2
F2	Interference from the local government	3.78	6
F3	Economic down turns	4.95	1
F4	Political intervention	3.80	5
F5	Willful defaults by borrowers	3.90	3
F6	Soft budget constraints	3.67	9
F7	Intense competition	3.73	7
F8	Insolvency	3.72	8
F9	Business failure	3.85	4
F10	Government policy	3.65	10
F11	Natural calamities resulting in crop failure	3.62	11
F12	90 days non payment time for a/c turning NPA too short	3.55	12

Table 3 Hypotheses testing

Hypothesis	Table value of Chi Square (χ^2)	Calculated value of Chi Square (χ^2)	Degree of Freedom (*df*):	Level of Significance
* H1	19.68	0.8563095	11	5%
**H2	16.92	3.7974	9	5%
***H3	3.84	4.04	1	5%

H1 *It is hypothesized that there is no relationship between internal and external factors causing NPAs in Indian public sector banks*

Since the *calculated value of Chi Square (χ^2) as mentioned in the above table 3 is less than the table value at 5 per cent level of significance and at 11 *df*, thus, the null hypothesis is accepted. Therefore, it is revealed that internal and external factors causing NPAs are not related with each others' and both factors are not equally responsible for causing NPAs in Indian public sector banks.

4.3 Difficulties usually faced in Implementing Inspection of Accounts on Regular Basis

Further study deals with the difficulties faced in inspection of accounts on regular basis in the selected banks. To study the difficulties faced by banks in inspection of accounts, various parameters were developed. The respondents were asked to rate the parameters. The responses of respondents were collected and shown in the table 4 in the (appendix) From the ranking of the mean score in table 4.1, two main difficulties faced by banks in inspection of accounts are identified. These are: - (1) Heavy routine work and inadequate staff and (2) Non submission of stocks statements by parties. It is also found that distance borrowers units from branches are not the main difficulty faced by banks in inspection of accounts on regular basis in banks of India.

Hypothesis **H2 II** *It is hypothesized that bank managers faced difficulties in inspection of accounts in Indian public sector banks*

Table 4: Difficulties faced by banks in inspection of accounts

Parameters (Coding)	1	2	3	4	Total
Non Submission of Stock statements by parties (G1)	22(36.67)	16(26.67)	13(21.67)	9(15.00)	60(100)
Distance borrowers units from branches (G2)	20(33.33)	17(28.33)	15(25.00)	8(13.33)	60(100)
Heavy routine work and inadequate staff (G3)	24(40.00)	15(25.00)	14(23.33)	7(11.67)	60(100)
Non- availability of trained staff (G4)	25(41.67)	12(20.00)	11(18.33)	12(20.00)	60(100)

Note: Figure in parenthesis indicate percentage

Table 4.1: Analysis of Table 4

Variable Name	Parameters	Mean score	Rank
G1	Non Submission of Stock statements by parties	2.85	2
G2	Distance borrowers units from branches	2.82	4
G3	Heavy routine work and inadequate staff	2.93	1
G4	Non- availability of trained staff	2.83	3

**Since the calculated value of Chi Square(χ^2) as mentioned in table 3 is less than the table value at 5 per cent level of significance and at 11 *df*, thus, the null hypothesis is rejected. Therefore, it is revealed that bank managers have not faced difficulties in inspection of accounts in public sector banks.

Research deals with the number of factors considered early warning signals of accounts in the selected banks. To study these factors various parameters were developed by the researchers. The responses to these parameters were collected and shown in the table 5 in the (appendix)

4.4 Factors Considered as Early Warning Signals of an Account Turning into NPAs

Table 5: Factors considered early warning signals of accounts

Parameters (Coding)	Yes	No	Total
No operation in account (H1)	39(65.00)	21(35.00)	60(100)
Irregular repayment (H2)	42(70.00)	18(30.00)	60(100)
Not routine transactions (H3)	33(55.00)	27(45.00)	60(100)
Frequent return of cheques (H4)	29(48.33)	31(51.67)	60(100)
Frequent over drawings N(H5)	30(50.00)	30(50.00)	60(100)
Income generation from projects no as per the plan (H6)	32(53.33)	28(46.67)	60(100)
Any other (H7)	18(30.00)	32(53.33)	60(100)

Note: Figure in parenthesis indicate percentage

Table 5.1: Analysis of Table 5.

Variable Name	Rank
H1	2
H2	1
H3	3
H4	6
H5	5
H6	4
H7	7

Table 5.1 depicts that 'irregular payment' is highly reported warning signals of accounts turning into NPAs in Indian public sector banks, followed by the 'No operation in Account' and 'Income generation from projects no as per the plans. But the least important warning signals are the 'frequent return of checks' and any others.

Table 6 deals with the various suggestions for improving the NPAs recoveries. To study the possible suggestions, various parameters were developed. The responses to these parameters were collected and shown in the table 7 in the (appendix)

Table 6: Suggestions for improving NPAs recoveries

Parameters (Coding)	SA	A	N	D	SD	Total
Sufficient staff to be given (J1)	24 (40.00)	20 (33.33)	3 (5.00)	8 (13.33)	5 (8.33)	60 (100)
Support from controlling office (J2)	28 (46.67)	16 (26.67)	1 (1.67)	7 (11.67)	9 (15.00)	60 (100)
Follow up of NPAs to be increased (J3)	22 (36.67)	23 (38.33)	2 (3.33)	5 (8.33)	8 (13.33)	60 (100)
Recovery machinery to be improved in PSU banks like new generation banks (J4)	26 (43.33)	18 (30.00)	4 (6.67)	6 (10.00)	6 (10.00)	60 (100)
Revenue and government body involvement is necessary to recover (J5)	25 (41.67)	15 (25.00)	5 (8.33)	9 (15.00)	6 (10.00)	60 (100)
SARFAESI Act where ever applicable is to invoked (J6)	30 (50.00)	12 (20.00)	1 (1.67)	7 (11.67)	10 (16.67)	60 (100)
Appoint recovery officer to collection daily basis from transport operators and retailers etc. (J7)	23 (38.33)	17 (28.33)	3 (5.00)	8 (13.33)	9 (15.00)	60 (100)
Stern action to be taken after analysis in the case of willful defaults (J8)	21 (35.00)	16 (26.67)	6 (10.00)	10 (16.67)	7 (11.67)	60 (100)
Effective laws are required to deal with NPAs (J9)	25 (41.67)	10 (16.67)	8 (13.33)	5 (8.33)	12 (20.00)	60 (100)

Compromise is better than recovery through the legal suits (J10)	20 (33.33)	14 (23.33)	8 (13.33)	11 (18.33)	7 (11.67)	60 (100)
More power to the branches (J11)	27 (45.00)	12 (20.00)	1 (1.67)	7 (11.67)	13 (21.67)	60 (100)
Any other (J12)	19 (31.67)	20 (33.33)	2 (3.33)	8 (13.33)	11 (18.33)	60 (100)

Note: Figure in parenthesis indicate percentage

Table 6.1: Analysis of table 6

Variable Name	**Parameters**	**Mean score**	**Rank**
J1	Sufficient staff to be given	3.83	2.5
J2	Support from controlling office	3.83	2.5
J3	Follow up of NPAs to be increased	3.77	4
J4	Recovery machinery to be improved in PSU banks like new generation banks	3.86	1
J5	Revenue and government body involvement is necessary to recover	3.73	6
J6	SARFAESI Act where ever applicable is to invoked	3.75	5
J7	Appoint recovery officer to collection daily basis from transport operators and retailers etc.	3.62	7
J8	Stern action to be taken after analysis in the case of willful defaults	3.47	11.5
J9	Effective laws are required to deal with NPAs	3.52	9
J10	Compromise is better than recovery through the legal suits	3.48	10
J11	More power to the branches	3.55	8
J12	Any other	3.47	11.5

From the ranking of the mean score in table 6.1, top five parameters were identified which are the most important suggestions to improve NPA recoveries in the banks. These are: (1) Recovery machinery to be improved in PSU banks like new generation banks. (2) Sufficient staff to be given. (3) Support from controlling office. The second two factors were equally important. (4) Follow up of NPAs to be increased. (5)

SARFAESI Act where ever applicable is to invoke. It is also found that suggestions to appoint recovery officer to collect daily basis from transport operators and retailers.

etc and others were not the important suggestions to improve NPAs recoveries in the selected public sector banks.

Table 8(appendix) indicates that highest 48.33 per cent respondents were strongly agreed with the parameter K1; whereas 36.67 per cent of the respondents supported them. 36.67 per cent of the respondents strongly agreed with the parameter K2 and only 5 per cent of the respondents were strongly disagreed

Table 7 Suggestions to control the problem of NPAs

Parameters (Coding)	**SA**	**A**	**N**	**D**	**SD**	**Total**
Good pre-sanction scrutiny (K1)	29 (48.33)	22 (36.67)	1 (1.67)	5 (8.33)	4 (6.67)	60 (100)
Effective post-sanction supervision (K2)	22 (36.67)	26 (43.33)	2 (3.33)	7 (11.67)	3 (5.00)	60 (100)
Frequent interaction with borrowers (K3)	23 (38.33)	25 (41.67)	3 (5.00)	3 (5.00)	6 (10.00)	60 (100)
Adherence to KYC (know your customer) norms (K4)	26 (43.33)	20 (33.33)	3 (5.00)	4 (6.67)	7 (11.67)	60 (100)
Take adequate realizable security (K5)	20 (33.33)	27 (45.00)	4 (6.67)	2 (3.33)	8 (13.33)	60 (100)
Branches to have adequate manpower for follow up/supervision of advances (K6)	24 (40.00)	16 (26.67)	0 (0)	9 (15.00)	11 (18.33)	60 (100)
Need based financing (K7)	27 (45.00)	23 (38.33)	2 (3.33)	3 (5.00)	5 (8.00)	60 (100)
Obtain confidential opinion from other banks where the customer is also maintain an a/c (K8)	28 (46.67)	15 (25.00)	4 (6.67)	6 (10.00)	7 (11.67)	60 (100)
Effective recovery steps (K9)	25 (41.67)	18 (30.00)	5 (8.33)	6 (10.00)	6 (10.00)	60 (100)
Any other (K10)	18 (30.00)	24 (40.000	1 (1.67)	8 (13.33)	9 (15.00)	60 (100)

Note: Figure in parenthesis indicate percentage

Table 7.1: Analysis of table -7

Variable Name	Parameters	Mean score	Rank
K1	Good pre-sanction scrutiny	4.17	1
K2	Effective post- sanction supervision	3.95	3
K3	Frequent interaction with borrowers	3.93	4
K4	Adherence to KYC (know your customer) norms	3.90	5
K5	Take adequate realizable security	3.87	6
K6	Branches to have adequate manpower for follow up/supervision of advances	3.55	10
K7	Need based financing	4.07	2
K8	Obtain confidential opinion from other banks where the customer is also maintain an a/c	3.67	8
K9	Effective recovery steps	3.83	7
K10	Any other	3.56	9

From the ranking of the mean score in table 8.1, three parameters were identified which were the most important suggestions to control the problem of NPAs in the banks. These were: (1) Good pre-sanction scrutiny. (2) Need based financing. (3) Effective post sanctions supervision. It is also found that branches to have adequate manpower for follow up/supervision of advances were not the appropriate suggestion to control the problems of NPAs in the banks of India.

4.5 Impact of Securitization Act on NPAs

Table 9 deals with the impact of Securitization Act on Non Performing Assets. To study the impact of Securitization Act the respondents were asked to give their opinion whether they are agreed (L1) or not (L2) and cannot say anything (L3). Responses to these opinions were gathered and shown in the table 9 (appendix).

Table 8: Impact of Securitization Act on NPAs

Opinion (Coding)	Responses (Percentage)
Yes (L1)	49 (81.67)
No (L2)	11 (18.33)
Total	**60 (100)**

Note: Figure in parenthesis indicate percentage

Table 8 depicts that Securitization Act has impact on reducing the level of NPAs in the selected public sector banks. Very few respondents reported that Securitization has no impact on NPAs.

Hypothesis **H3** *It is hypothesized that Securitization Act has no impact on reducing the problem of NPAs ,as mentioned in the table 4*

Since the calculated value of Chi Square (χ^2) is more than the table value at 5 per cent level of significance at 1 *df*, thus, the alternate hypothesis is accepted. Therefore, it is revealed that Securitisation Act has positive impact on NPAs, thereby reduced the magnitude of problem

4.6 Experiences with the Public or Judicial Auction Procedures

Table 9 deals with the experience of the respondents with the public or judicial auction procedures whether these procedures were highly satisfactory (M1), Satisfactory (M2), Less Satisfactory (M3), Not satisfactory (M4). Responses to these parameters were developed and shown in the table 10 in (appendix)

Table 9: Experience with the Public or Judicial Auction Procedures

Levels of Satisfaction (Coding)	Response
Highly satisfactory (M1)	23 (38.33)
Satisfactory (M2)	14 (23.33)
Less Satisfactory (M3)	10 (16.67)
Not satisfactory (M4)	13 (21.67)
Total	**60 (100)**

Note: Figure in parenthesis indicate percentage

Table 9.1: Analysis of table 9

Variable name	Rank
M1	1
M2	2
M3	4
M4	3

Survey deals with the trend in recovery from NPAs through various initiatives. To study these factors various parameters (N1, N2, N3, and N4) were developed & responses to these parameters were collected and shown in the table 11(appendix) indicates that highest 43.33 per cent respondents reported that Recovery was done through SARFAESI Act (N4), followed by parameter N3, N2 and NI. SARFAESI Act has been found major instrument of NPAs recovery in the Indian public sector banks followed by DRTs and Lok Adalats. Compromise scheme and one time settlement scheme has been found least effective in regards to recovery of NPAs in the Indian public sector banks.

5.0 Suggestions to Manage the Problem of NPAs

These NPA management strategies for Indian public sector are given as under:

- **Special Mention Accounts:** In a recent circular, RBI has suggested to the banks to have a new asset category - `special mention accounts' - for early identification of bad debts. This would be strictly for internal monitoring. Loans and advances overdue for less than one quarter and two quarters would come under this category. Data regarding such accounts will have to be submitted by banks to RBI. However, special mention assets would not require provisioning, as they are not classified as NPAs. Nor are these proposed to be brought under regulatory oversight and prudential reporting immediately. The step is mainly with a view to alerting management to the prospects of such an account turning bad, and thus taking preventive action well in time..
- **Establishment of an AMC** may be useful when the size of problem reaches systematic proportions so that special management skills are needed. An important purpose of have asset management companies is the managerial factor. The handling of bad loans and assets requires other skills than are normally available in a bank. Real estate specialists, liquidation experts, and people with insights into various industrial sectors may be needed. In addition, managing large amount of bad assets would interfere with the daily running of the bank. If a separate AMC is established to handle bad assets, both the good bank and the AMC could be given independent and transient profit goals. This would provide clearer incentives for managers and staff.
- The study reveals that **poor pre and post sanction scrutiny** is one of the reasons behind the growing non-performing assets in the Indian public sector banks. Thus, the study identifies the need of effective of pre and post sanction scrutiny. **Effective and regular follow-up** of the end use of the funds sanctioned is required to ascertain any embezzlement or diversion of funds. This process can be undertaken every quarter so that any account converting to NPA can be properly accounted for.
- **Combining traditional wisdom with modern statistical tools** like Value-at-risk analysis and Markov Chain Analysis should be employed to assess the borrowers.

This is to be supplemented by information sharing among the bankers about the credit history of the borrower.

- The study identifies the need of **improving the relationship** between the banker and borrowers. A healthy Banker-Borrower relationship should be developed. Many instances have been reported about forceful recovery by the banks, which is against corporate ethics. Debt recovery will be much easier in a congenial environment.
- **The study proved that securitization is very effective tools** to fight with the problem of NPAs. This has been used extensively in China, Japan and Korea and has attracted international participants due to lower liquidity risks. The Resolution Trust Corporation has helped develop the securitization market in Asia and has taken over around $ 460 billion as bad assets from over 750 failed banks. Its highly standardized product appeals to a broad investor base. Securitization in India is still in a nascent stage but has potential in areas like mortgage backed securitization. ICRA estimates the current market size to be around Rs 3000 Crores. There is need to make the securitistion system more effective in India.
- Countries such as Korea, China, Japan, Taiwan have a well **functioning Asset Reconstruction/Recovery mechanism** wherein the bad assets are sold to an Asset Reconstruction Company (ARC) at an agreed upon price. In India, there is an absence of such mechanism and whatever exists, it is still in nascent stage. One problem that can be accorded is the pricing of such loans. Therefore, there is a need to develop a common prescription for pricing of distressed assets so that they can be easily and quickly disposed.
- **Some tax incentives** like capital gain tax exemption, carry forward the losses to set off the same with other income of the Qualified Institutional Borrowers (QIBs) should be granted so as **to ensure their active participation** by way of investing sizeable amount in distressed assets of banks and financial institutions.
- The study reveals that highest lending has been made to the priority sector by the Indian public sector bank. So far the Public Sector Banks have done well as far as lending to the priority sector is concerned. However, it is not enough to make lending to this sector mandatory; it must be made profitable by sharply reducing the transaction costs. This entails faster embracing of technology and minimizing documentation. The study suggest whatever be the sector, the **financing should be made on the basis of need**.
- The study also identifies the **need of improvement in the existing NPAs recovery machinery.** An effective strategy of NPA resolution has to involve the financial and

operational restructuring of unviable industrial borrowers. Because the representative NPAs of larger size are industrial loans collateralized by the fixed assets of the borrowers, they typically do not have much value if the viability of the borrower is in doubt. However, corporate restructuring has been a difficult process worldwide. Its success depends not only on an efficient and effective corporate insolvency regime, but also on labour laws, competition policies, trade policies, and other structural factors. From this perspective, the resolution of the NPAs in the banking system is only a part of the larger effort of industrial restructuring and structural reforms.

- Last but not the least, another way to manage the NPAs by the Indian public sector banks is Compromise Settlement Schemes or One Time Settlement Schemes.

References

Aggarwal, Ashish (2004), *"Solving the NPA Puzzles",* Business World, May, pp 26-28.

Altman, E.L., Andrea Resti and Andrea Sironi, (2001), '*Analysing and Explaining Default Recovery Rates* ', A Report Submitted to the International Swaps & Derivatives Association.

Ambrose, B.W. and Charles A. Capone, Jr. (1996), "*Do Lenders Discriminate in Processing Defaults?"* Cityscape: A Journal of Policy Development and Research Vol. 2, No. 1, Feburary, pp 1230-34.

Badu, Y.A., Kenneth N Daniels and Francis Amagoh (2002) *'An empirical analysis of net interest cost, the probability of default and the credit risk premium, the case study of Virginia',* Managerial Finance, Vol. 28, No. 4, pp 23-43,

Basant, Rakesh (2000), *Corporate Responses to Economic Reforms",* Economic and Political Weekly, 4th March, pp 813-22.

Basel Committee on Banking Supervision (2000), *"Sound Practices for Managing Liquidity in Banking Organizations",* Bank of International Settlements.

Basel II (2004) *The Revised Framework of June 2004*; No 178 April 2005 United Nations Conference on Trade and Development, Discussion Papers, United Nations.

Benhabib, J. and Spiegel (2000), *"The Role of Financial Development in Growth and Investment",* Journal of Economic Growth, Vol. 5, No.1, pp 122-45.

Bhayani, Sanjay (2002), *"Analysis of Non-Performing Assets (NPAs) in Public Sector Banks: Challenges and Strategy",* Journal of Commerce and Information Technology, Vol.2, No. 3, pp 29-34

Benhabib, J. and Spiegel (2000), *"The Role of Financial Development in Growth and Investment"*, Journal of Economic Growth, Vol. 5, No.1, pp 122-45.

Bhattacharya, A., C.A.K. Lovell and P. Sahay (1997) *"The Impact of Liberalization on the Productive Efficiency of Indian Commercial Banks*". European Journal of Operational Research, 98: 332.45.

Bosworth E., R. Eales (1998), "*Severity of Loss in the Event of Default in Small Business and Large Consumer Loans"*, The Journal of Lending & Credit Risk Management, May 1998.

Brennan W.T., R.J. Grossman, J. Vento (1997), *"Syndicated Bank Recovery Studies"*, Fitch Research, 1997

Carty et al. (1998), "*Bankrupt Bank Loan Recoveries"*, Moody's Investors Service, June 1998.

Carty L.V., D. Gates, G.M. Gupton (2000), "Bank Loan Loss Given Default", Moody's Investors Service, November 2000.

Carty L.V., D.T. Hamilton (1999), "Debt Recoveries for Corporate Bankruptcies", Moody's Investors Service, June 1999

Ketkar, S and Ratha, D. (2001), *"Securitisation of Future Flow of Receivables: a Useful Tools for Developing Countries"*, Finance Development, Vol. 38, No. 2, pp 2-10.

Kohli, Renu (2002) "The informational quality of financial systems" Financial Express

Paul, Justin (2006), 'Technological Developments in the Banking Sector', Business Environment: Text and Cases, Tata McGraw Hill: New Delhi.

Paul, Justin (2006), "Global Trends in Banking Sectors: Analysis of High Tech Services and Remote Channels", Journal of Indian Institute of Banking, May, Pp 10-15.

Paul, Justin and Suresh, Padmalatha (2007), Managemenet of Banking and Finacial Services, Pearson Eduction: New Delhi.

Ram Mohan, T. T. (2002) *"Banking reform in India"*, Lecture at the Indian Institute of Management Ahmedabad 15th September 2002

Influence of Economic Factors on Women Buying Behavior of Smartphones in NCR

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Abstract

Purpose: The purpose of the present research paper is to find out whether Economic factors significantly influence the women buying behavior of Smartphones in National Capital region, INDIA. Survey research was carried out to develop an understanding about the influence of Economic factors on women buying behavior of Smartphones in NCR region. Questionnaire was employed to collect the responses of women in five major cities of NCR viz. Delhi, Gurgaon, Noida, Ghaziabad, Meerut. It was revealed from the study that Economic factors have no significant influence on buying behavior of working women towards purchase of smartphone. However, Economic factors were found to have a significant influence on buying behavior of non-working women towards purchase of smartphone. The outcomes of the study will enable marketers to have a better understanding of the women buying behavior of smartphone. The study will enable marketers to understand how the Economic Factors Viz. spendable income, savings, wealth & assets, borrowings and consumer budget influence the buying behavior of working and non-working women and at the same time enable them to understand the difference in buying behavior depicted by them. The better understanding of the buying behavior enables marketers in proper segmentation of the market, targeting the chosen segment with the right set of marketing mix and in positioning its offering in the chosen market.

Keywords: *Economic, Smartphone, Buying Behavior, Women, Internet, Mobile*

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Introduction

Consumer research has always been an important area for marketers to understand, track and find out what influences consumers and their behaviors while choosing and purchasing products. Understanding the consumer buying behavior is not easy rather it is quite complex as each and every individual is different in their behavior, some or the other way. Marketers generally try to understand the buying behavior of a segment of the market and keep a regular and frequent track of it to notice the changes occurring, if any. The better understanding of the consumers' behavior enables marketers to frame the right set of strategies to serve the needs of the segment of the market chosen. Based on the gender the two main and broader segments of the market are men and women segment. It is quite true that today world economy is at large driven by the women. Around the globe, women contribute and control the major share of the annual consumer spending as they are not only involved in purchase decisions of self but also of others in the family specially, the children and the elders. Thus, women represent the major portion of the consumer market but still many companies are ignoring their power and have underestimated them as a lucrative segment of the market and thus, losing onto a potential market. But On the other hand, we also have companies who being proactive, have understood the power of women consumers and are making efforts to understand the women buying behavior and develop products specifically catering to meet the needs of women consumers and thus obtaining edge over the market. In this direction, in order to tap the large market of women consumers, most of the companies have to learn about the buying behavior of women and how it is influenced by the various factors.

The advancement of the technology and development of the smartphone and their rapid adoption has made them an important and integral part of human's life and communication globally. The enhanced capabilities of smartphone have opened new horizons in different aspects of life. In the current scenario, the market for smartphone is tremendously competitive with multiple competitors constantly competing to obtain an additional competitive advantage and is striving hard to differentiate their brand from competitors to persuade consumers. In the previous studies conducted by researchers to understand and identify the factors that influence the consumer buying behavior, it was found that every consumer segment is different and depict different buying behavior and gets significantly influenced by different factors for different products. Women consumers being emerging as a most lucrative market segment with specific characteristics and needs, make it an immensely important segment of market to understand women buying behavior and the factors that influence their buying behavior significantly. In the present research paper efforts are made to study the influence of Economic Factors Viz. spendable income, savings, wealth & assets, borrowings and consumer budget on women buying behavior of smartphone.

Economic factors influencing individual Buying Behavior

Individuals indulge themselves in purchase of varying products based on their needs and desires but many a times, due to limited resources individuals have to choose and settle for one product over other to fulfill their needs. Because of Economic circumstances one can not afford everything and must choose few things and reject the rest. The important economic factors considered in the present study that influence the individuals' buying behavior are explained as follows:

1. ***Spendable Income:*** It refers to the amount of salary left out after paying the taxes. It is the income available to the individuals that they may use to purchase products or services to fulfill their needs. It determines the affordability of the individual. The higher is the spendable income the more the affordability of the individual.
2. ***Savings:*** Savings refer to that amount of money which is accumulated by the individual over a period of time. Regular saving habit of an individual for a desired period of time may result into a large amount of corpus that may be utilized by the individual for fulfilling certain needs or wants that could not be fulfilled with limited corpus.
3. ***Wealth and Assets:*** Wealth refers to the abundance of money or valuable possessions and assets may be fixed or current assets. An individuals' wealth and assets enable him or her to make purchase decisions more easily due to availability of more funds which would have been exhausted in creating assets.
4. ***Borrowings:*** It refers to the money taken from someone with an obligation to return it back within a decided period of time along with the interest amount. Borrowings can be taken from various governmental and non-governmental financial institutions, friends or family. Borrowings taken from family or friends might be available without any interest. Availability of borrowings may allow individuals to fulfill their needs and wants in short term when they are running short of money.
5. ***Consumer Budget:*** Every Individual and household depending on their spendable income decide the portion of their income that they will dedicate to procure different products required to fulfill different needs. The budget which is

dedicated by the individual to procure a particular product is known as consumer budget for that product. Most of the consumers prefer to stick to their budget while making purchase decision of products hence effects their buying behavior.

Literature Review

In the past various studies had been conducted by researchers from time to time in order to understand the prevailing factors that influence the consumers' buying behavior and predict their buying behavior towards the purchase of different products. The research papers reviewed below focuses on the influence of economic factors on buying behavior of consumers.

A study conducted by Choudhary K. N. & Dandwate S. S. (2011) on "Buying Behavior of Women and Factors Influencing Purchase Decision of Durable Goods -A Study with Reference to Nanded City", revealed that the women purchase decision is influenced by the family joint decision and price factor play important role in their purchases. It was also conducted in the study that availability of credit or installment facility, friends advise, etc. were found to influence the women purchase decision of durable. In a study conducted in Bilaspur district of India by Dasar Paramanand, Hundekar S.G. & Maradi Mallikarjun (2013) on "Consumer Behaviour on Consumer Durables with Reference to Bijapur District". Their research work revealed that faith and inner urge has more influence in decisions related to purchase of consumer durables rather than recommendations of friends, relatives, dealers, company advertisements, debtors, bankers, etc. Also, it was concluded from the study that large number of people included in the study prefer to take opinion of experts before deciding to purchase durables, large number of respondents stick to well known brands and preferred to avail credit facility in installments. It was concluded that consumers evaluate multiple factors before choosing a durable for purchase.

Goel S and Gupta P in their research paper on Influence of Social and Economic Factors on Consumer Buying Behavior: A Literature Review concluded that the buying behavior of consumers is significantly influenced by the social and economic factors both, in majority of the research papers reviewed by them. In yet another study conducted by Goel S and Gupta P (2017) to study the impact of online social influence on women buying behavior of smartphones. They concluded from their study that the influence exerted by the social influence on online platforms on the buying behavior of women is significant. Also, in their study they concluded that working women and non-working women differ from each other in their thoughts as to how they are influenced by online social influence. In yet another article on Smartphones-smartly transforming India, Goel S and Gupta P (2017) came up with a conclusion that smartphones are contributing significantly in transforming India by bringing about noticeable positive changes in the field of education sector, Banking sector, Healthcare sector, Agriculture sector, Business and economy as a whole and also leading to the empowerment of women. Goel S and Gupta P (2017) conducted a literature review Study on the Influence of social and Economic factors on women buying behavior and it was concluded from the study that the buying behavior of women in the purchase of different types and categories of products, was found to be significantly influenced by the chosen social and economic factors considered in the studies reviewed.

Goel S and Gupta P (2018) in their research paper on role of smartphone in women empowerment concluded that smartphones are greatly involved women. Smartphones have smartly empowered them by bringing about a noticeable and a positive change in the lives of women and their family and also, made them both independent socially and economically.

J. Venkatesh and Kumarasamy Vinoth (2015) in their study on "Evaluation of socio-Economical Factors influencing consumer buying behavior of silk saris" conducted a research to find how socio-economic factors such as education, profession, income, age, marital status, etc. influence the consumer buying behavior of silk saris. It was concluded from the study that marital status and income have a significant influence on consumer buying behavior of silk saris.

A study of " Factors Affecting Smartphone Purchase among Indian Youth: A Descriptive Analysis" conducted by Joshi S. , Jog Y., Chirputkar A., Shrivastava N. and Doshi R. (2016) concluded that Technology factors(OS version, security, connectivity, etc.), Hardware factors (RAM, screen size, Camera of good quality, etc.), Basic factors (Price, Dual sim, Easy to carry), Brand factors (Advertisement , word of mouth, Brand name) and financial factors (Discounts, offers and EMI's, free accessories) significantly affects the youth's Smartphone purchase. However, Technology factor and Hardware factors were found to have the most significant influence. Keiser and kuehl (1972) in their comparative study of influence of Social Class and Income on adolescents' external search processes concluded that adolescents belonging to upper class with high earnings were able to identify more brands than other adolescents. A study aimed to understand purchase behavior of respondents and the factors that influence to buy organic food conducted by

L.Shashikiran and Madhavaiah C titled "Impact of Socio Economic Factors on Purchase Behaviour of Organic Food Products" concluded that the various socio-economic factors considered in the study such as gender, age, income, education, occupation and readiness to buy organic food were found to have no association. Only Marital status and food habit were found to have an association with the readiness to buy organic food.

A study conducted in Borno state of Nigeria by Lawan & Zanna (2013) on "Evaluation of Socio-Cultural Factors Influencing Consumer Buying Behaviour of Clothes in Borno State, Nigeria" concluded that there exists a significantly high influence of cultural (Societal norms), economic (Income) and personal factors (age) on clothes buying decision process. In a study on " Factors Influencing Changsha Teenagers' Purchase Intention Towards Celebrity-Endorsed Apparels" Ling Chang conducted a research to find out the influence of various factors such as pyschological factors (motivation), socio-cultural factors (culture, subcultures, social class, and economic situation), product attributes (Fashion, attraction, prestige, trustworthiness, quality, brand and price), attitude (acceptability and feelings about celebrity-endorsed apparels) on teenager's purchase intention towards celebrity-endorsed apparels and concluded that there was a significant relationship between attitude, Psychological factors, product attributes and teenagers' purchase intention. Price of apparels and their brand was found to have an association with the teens purchase intention towards apparels endorsed by celebrity. However, no significant influence of socio-cultural factors was found on teens purchase intention towards apparels endorsed by celebrity.. A Malayasian study titled "Factors Influencing Consumer Behavior: A Study among University Students in Malaysia" conducted by Muniady Rajennd, Al- Mamun Abdullah, Permarupan P. Yukthamarani & Zainol Noor Raihani Binti analyzed the variables such as personality, Economic situation, lifestyle and lifecycle stage. It was concluded by them that out of the various factors considered in the study personality was found to have the most significant influence on consumer behavior and economic situation was found to bear a negative relationship with consumer behavior. Myres, Stanton and Haug (1971) concluded in their study that economic factors considered in the study such as consumer budget, family size and income were found to have a stronger influence in comparison to social factors in explaining expenditure pattern for goods having lower prices. Also, they concluded from their study that the influence of economic factors is quite high for low priced goods and can predict the type of clothes consumers are more likely to purchase.

In a general study on “Factors affecting consumer buying behavior”, Ramya N and Ali Dr. SA Mohamed studied that Cultural factors (i.e. Culture, sub-culture, Social class), Social Factors (i.e. Family, Reference group, Role and status), Personal Factors (Age, income, occupation, Lifestyle), Economic factors (Personal Income, Family Income, Income expectations, Savings, Liquid Assets, Consumer credit and other economic factors), Psychological factors (attitudes, beliefs, learnings, perception and motivation) are all involved in influencing the consumer buying behavior. Schaninger (1981) draw the conclusion from his study that the consumption of products and services with low social value that are not related to class symbols is most influenced by the economic factors. Also, it was concluded that it cannot be denied that the income of consumer has a strong impact on consumers’ buying behavior depicted in purchasing the types and prices of clothes.

In a study conducted by Shah (2010) it was concluded that the consumers having high income and saving influences their buying behavior and such consumers prefer to buy expensive products whereas on the other hand the consumers having less income and savings prefer to buy inexpensive products. In a research study conducted by Srivastava Shalini (2013) on “Factors Affecting Buying Behavior of Consumers in Unauthorized Colonies for FMCG Products” considered 21 variables which were placed under 5 broad categories (Reliability, Promotion, Product, Social and Economic. She concluded from the study that factors under broad category of variable reliability and Product preferences scored the most followed by economic and promotion. Undoubtedly, Price was the predominant factor for this price sensitive consumer segment while social prestige was found to be significantly important. In a case-based study conducted by Thangasamy E. & Patikar Gautam Dr. (2014) on “Factors Influencing Consumer Buying Behaviour: A Case Study”. It was concluded that the major reasons for the purchase of durables included necessity, comfort & convenience and social status respectively. The data analysis revealed that the prime sources for the purchase of durables in order of importance included Personal savings, Installments & Borrowed money respectively. Also, it was concluded that previous experience, Advertisement and relatives were the important factors influencing the buying behavior of respondents. Unger A., Papastamatelou J., Okan E. Y. and Aytas S. (2014) in their research study on “How the economic situation moderates the influence of available money on compulsive buying of students – A comparative study between Turkey and Greece” concluded that the compulsive buying tendencies of individuals are more influenced by the financial and general economic environment rather than money available with one. A research conducted in Poland by Yakup Durmaz Dr. & Jablonsk Sebastian Dr. (2012) on 'Integrated approach to factors affecting consumers purchase behavior in Poland and an empirical study" concluded that Price, Economic condition are really important for participants when shopping and for majority of respondents the approval of family, friend & environment was not an important factor in buying of goods and services however, other reference groups were found to be important for buying decision. However, it was noted that the suitability to job (role and status) isn't the most important thing.

Objective of study

The specific objective of the present study conducted to have a better understanding of the women behavior in the purchase of smartphone are as following:

1. To study the various dimensions of women buying behavior.
2. To study the influence of the chosen Economic factors on women (both working and non-working) buying behavior of smartphone.

Hypothesis

The hypotheses are framed in the present study to fulfill the objectives of the study are mentioned as following:

H_{00}: The influence exerted by selected economic factors on working women buying behavior of smartphone is not significant.

H_{01}: The influence exerted by selected economic factors working women buying behavior of smartphone is significant.

H_{02}: The influence exerted by selected economic factors on non-working women buying behavior of smartphone is not significant.

H_{03}: The influence exerted by selected economic factors on non-working women buying behavior of smartphone is significant.

Research Methodology:

The study was carried out in the Delhi NCR region of India with the objective of understanding the women buying behavior and how Economic factors influence their decision to buy a new smartphone. The questionnaire designed on Economic factors viz. spendable income, savings, wealth & assets, borrowings and consumer budget was employed to collect samples which were collected from five major cities of Delhi NCR viz. Delhi, Noida, Gurgaon, Ghaziabad and Meerut for both working and non-working women using stratified random sampling. The minimum size for each strata (each for working women & non-working women) was calculated using the sample size determination formula given by Cochran (1977). The formula is as following:

$$n = (z/e)^2pq = (1.96/0.044)^2*0.25 = 496$$

Out of 496-questionnaire distributed to non-working women through online and offline mode, 485 were found to be complete and valid. Out of the 496-questionnaire distributed to working women, 483 were found to be complete and valid. The samples so collected were used for data analysis and interpretation.

Data Analysis and Interpretations:

Table 1.1 Correlation Test

		working women	Non-Working Women
		10b1_Decision_to_buy_a_new_smartphone	10b1_Decision_to_buy_a_new_smartphone
10b1_Decision_to_buy_a_new_smartphone	Pearson Correlation	1	1
	Sig. (2-tailed)		
	N	483	485
12a_buy_Smartphone_because_I_can_buy_it_from_own_income	Pearson Correlation	-.018	.091*
	Sig. (2-tailed)	.685	.045
	N	483	485
12b_bought_Smartphone_because_family_can_ buy_it_for_me	Pearson Correlation	-.038	.126**
	Sig. (2-tailed)	.401	.006
	N	483	485
12c_managed_to_buy_smartphone_of_choice_because_of_savings	Pearson Correlation	-.042	.096*
	Sig. (2-tailed)	.358	.034
	N	483	485
12d_Inherited_accumulated_wealth_&_ assets_allowed_to_purchase_smartphone_of_choice	Pearson Correlation	-.037	.355**
	Sig. (2-tailed)	.416	.000
	N	483	485
12e_manage_to_purchase_smartphone_ because_of_available_on_ EMI_credit	Pearson Correlation	.017	-.105*
	Sig. (2-tailed)	.704	.021
	N	483	485
12f_managed_to_purchase_smartphone_by_borrowing_from_family_&_friends	Pearson Correlation	.119**	-.061
	Sig. (2-tailed)	.009	.182
	N	483	485
12g_stick_ to_budget_not_raise_it_more_features_&_specifications	Pearson Correlation	-.091*	.068
	Sig. (2-tailed)	.046	.132
	N	483	485

From the correlation test in Table 1.1, it can be drawn that the dependent variable i.e. decision to buy a new smartphone has no significant relation with the Economic factors under study for working women. However, it may be noted from the table that dependent variable i.e. decision to buy a new smartphone is found to bear a weak positive relation with the Economic factors under study (except borrowings). It may be further interpreted from the table that only accumulated wealth and assets are found to have a moderate positive relation with the dependent variable. However, it may be noted that other variables under study have been found to have weak positive correlation.

F-Test

Table 1.2 ANOVA (Working Women)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8.119	7	1.160	1.757	.094[b]
	Residual	313.562	475	.660		
	Total	321.681	482			

a. Dependent Variable: 10b1_Decision_to_buy_a_new_smartphone
b. Predictors: (Constant), 12g_stick_ to_budget_not_raise_it_more_features_&_specifications

F-Test is used to find out if the influence of independent variable on dependent variable is significant or not. From table 1.2 it may be noted that the value of significance (0.094) is greater than 0.05 (level of significance) Hence, the null hypothesis H_{00} is accepted and alternate hypothesis H_{01} is rejected. Therefore, it may be interpreted that the influence exerted by the chosen Economic factors on working women buying behavior of smartphone is not significant.

Table 1.3 ANOVA (Non-Working Women)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	96.743	7	13.820	12.247	.000[b]
	Residual	538.279	477	1.128		
	Total	635.023	484			

a. Dependent Variable: 10b1_Decision_to_buy_a_new_smartphone
b. Predictors: (Constant), 12g_stick_ to_budget_not_raise_it_more_features_&_specifications

It may be noted from table 1.3 that the value of significance is 0.000 which is less than 0.05 (the acceptable significance level) and the calculated value of F (i.e. 12.247) is greater than F table value/critical value (2.028). Hence, there are enough evidence to reject null hypothesis H_{10} whereas the alternate hypothesis H_{11} is accepted. Therefore, it may be interpreted that the influence exerted by chosen Economic factors on non-working women buying behavior of smartphone is significant.

Regression Test

Table 1.4 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.541	.328		10.799	.000
	12a_buy_Smartphone_because_I_can_buy_it_from_own_income	.008	.038	.010	.217	.828
	12b_bought_Smartphone_because_family_can_ buy_it_for_me	.006	.046	.006	.121	.904
	12c_managed_to_buy_smartphone_of_choice_because_of_savings	-.002	.050	-.002	-.045	.964
	12d_Inherited_accumulated_wealth_&_ assets_allowed_to_purchase_smartphone_of_choice	.338	.044	.374	7.633	.000
	12e_manage_to_purchase_smartphone_ because_of_available_on_ EMI_credit	-.136	.037	-.164	-3.668	.000
	12f_managed_to_purchase_smartphone_by_borrowing_from_family_&_ friends	.001	.042	.001	.016	.987
	12g_stick_ to_budget_not_raise_it_more_features_&_specifications	.018	.056	.014	.314	.754

a. Dependent Variable: 10b1_Decision_to_buy_a_new_smartphone

Table 1.4 shows the regression analysis of the relationship between dependent and independent variables for non-working women in this research. By looking at the independent variable in this research, the regression equation shall be made as follows:

$$\mathbf{Y_{NWW} = 0.010X_{12a} + 0.006X_{12b} - 0.002X_{12c} + 0.374X_{12d} - 0.164X_{12e} + 0.001X_{12f} + 0.014X_{12g}}$$

Table 1.5 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.390[a]	.152	.140	1.062

a. Predictors: (Constant), 12g_stick_ to_budget_not_raise_it_more_features_&_specifications,

It may be noted from the table 1.5 that Economic factors have a value of R to be 0.390 which describes the criteria for the correlation between the independent and dependent variable, hence, it may be interpreted that independent variable i.e. Economic variables under study have a moderate relation of 39.0% with the decision to buy a new smartphone and the factor of determination i.e. coefficient of correlation (R^2) is found to be 0.140 which shows that 14.0% of the influence in non-working women buying behavior (i.e. decision to buy a new smartphone) is created by the Economic factors while the remaining 100% - 14.0% = 86% are explained by other factors not considered in this research study.

Table 1.6 Hypothesis Testing

Hpothesis	Hypothesis statement	F calculated Value	F table value	P value (sig.)	Significance level	Remark
Null Hypothesis H_{00}	The influence exerted by the selected economic factors on working women buying behavior of smartphone is not found to be significant.	**1.757**	**2.029**	**0.094**	**0.05**	**Accepted**
Alternate Hypothesis H_{01}	The influence exerted by the selected economic factors on working women buying behavior of smartphone is found to be significant.	**1.757**	**2.029**	**0.094**	**0.05**	**Rejected**

Null Hypothesis H_{02}	The influence exerted by the selected economic factors on non-working women buying behavior of smartphone is not found to be significant.	**12.247**	**2.028**	**0.00**	**0.05**	**Rejected**
AlternateHypothesisH_{03}	The influence exerted by the selected economic factors on non-working women buying behavior of smartphone is found to be significant.	**12.247**	**2.028**	**0.00**	**0.05**	**Accepted**

From Table 1.6 it can be noted that the null hypothesis H_{00} is accepted and the alternate hypothesis H_{01} is rejected as the calculated p value is more than the level of significance and the calculated F-value is less than the F critical value. Also, it may be noted that the null hypothesis H_{10} is rejected and the alternate hypothesis H_{11} is accepted as the calculated p value is less than the level of significance (i.e. 0.05) and the calculated F-value is more than the F critical value.

Findings of the Study

On the analysis of data, it is found that the influence of independent variable i.e. economic factors Viz. spendable income, savings, wealth & assets, borrowings and consumer budget (Kotler Philip; Myres, Stanton and Haug (1971)) on dependent variable i.e. decision to buy a new smartphone for non-working women is significant. However, the influence of Economic factors on decision to buy a smartphone for working women is found to be insignificant. In other words, it may be drawn that working women buying behavior of smartphone is not significantly influenced by the Economic factors and the non-working women buying behavior of smartphone is significantly influenced by the Economic factors.

Conclusion

It may be concluded from the research study that the Economic factors considered in the present study Viz. spendable income, savings, wealth & assets, borrowings and consumer budget, play a significant role in influencing the buying behaviour of non-working women and determine their behaviour in buying a new smartphone. Also, it may be concluded from the study that Economic factors considered in the study do not influence the buying behaviour of working women significantly in decision to buy a smartphone. From this it may be further concluded that factors other than Economic factors such as social factors, product feature, brand name, price and after sales service, etc. (other factors studied by Ramya N and Ali Dr. SA Mohamed) might determine and influence the buying behavior depicted by working women in decision to buy a new smartphone. The finding of the study not only enhances the know-how of the marketers in understanding the women buying behavior of smartphone but also, enables marketers to target women consumers in more focused manner by framing the right set of strategies.

References

Chang, L. (2011). "Factors Influencing Teenagers' Purchase Intention towards Celebrity-endorsed Apparels: A Case Study". Available at http://www.assumptionjournal.au.edu/index.php/AU-GSB/article/view/497.

Choudhary, K. N., & Dandwate, S. S., Dr. (n.d.), "Buying Behavior of Women and Factors Influencing Purchase Decision of Durable Goods -A Study with Reference to Nanded City". Available at http://www.ghrws.in/charity/Variorum/Variorum Vol.-02 Issue I, August 2011/kishor choudhary-3-0.pdf.

Goel, S., & Gupta, P. (2016), "Influence of Social and Economic Factors on Consumer Buying Behavior: A Literature Review", Prabandhan: CMD Journal of Management, Vol. 8 No. 2, pp. 55-60.

Goel, S., & Gupta, P. (2017), "Impact of online social influence on women buying behavior of smartphones", International Journal of Science Technology and Management, Vol. 6 No. 2, pp. 721–735.

Goel, S., & Gupta, P. (2017), "Smartphones-smartly transforming India", Global Journal of Contemporary Management, Vol. 4 No. 1, pp. 113–117.

Goel, S., & Gupta, P. (2017), "Study of Influence of social and Economic factors on women buying behavior: A literature review", Vidya International Journal of Management Research, 5(2), 86–95.

Goel, S., & Gupta, P. (2018), "Role of Smartphone in women empowerment", International Journal of Knowledge Based Organizations, Vol. 9 No. 1.

K., K., S., & K., G., P. (1972), "Social Class and Income Influences on External Search Processes of Adolescents". Available at http://acrwebsite.org/volumes/12034/volumes/sv02/SV-02.

L, S., & Madhavaiah, C. (2015), "Impact of Socio Economic Factors on Purchase Behaviour of Organic Food Products", Available at http://files.aiscience.org/journal/article/html/70220009.html

Lawan, L. A., & Zanna, R. (2013), "Evaluation of Socio-Cultural Factors Influencing Consumer Buying". Available at https://www.scribd.com/document/213048225/Jr-Evaluation-of-Socio-Cultural-Factors-Influencing-Consumer-Buying.

Muniady, R., Mamun, A. A., Permarupan, P. Y., & Zainol, N. R. (n.d.), "Factors Influencing Consumer Behavior: A Study among University Students in Malaysia". Available at http://dx.doi.org/10.5539/ass.v10n9p18.

Myers, J. H., Stanton, R. R., & Haug, A. F. (1971), "Correlates of buying behavior: Social class vs. income", Journal of Marketing, Vol. 35 No. 4, pp. 8-15.

R., & Ali, S. M. (2016), "Factors affecting consumer buying behavior". Available at http://www.allresearchjournal.com/archives/?year=2016&vol=2&issue=10&part=B&ArticleId=2683.

Schaninger, C. M. (1981), "Social Class Versus Income Revisited: An Empirical Investigation", Journal of Marketing Research, Vol. 18, pp. 192-208.

Shah, A. (2016), "Factors Affecting Consumer Behavior". Available at https://productmanagement.buzz/index.php/2010/07/27/factors_affecti/ (accessed December 1, 2018).

Srivastava, S. (2013), "Factors Affecting Buying Behavior of Consumers in Unauthorized Colonies for FMCG Products", Global Journal of Management and Business Studies, Vol. 3 No. 7, pp. 785-792. Available at https://www.ripublication.com/gjmbs_spl/gjmbsv3n7_13.pdf

Sujata, J., Yatin, J., Abhijit, C., Noopur, S., & Ruchi, D. (2016), "Factors Affecting Smartphone Purchase among Indian Youth: A Descriptive Analysis", Indian Journal of Science and Technology, Vol. 9 No. 15, pp. 1-10. doi:10.17485/ijst/2016/v9i15/92117.

Thangasamy, E., & Patikar, G., Dr. (2014), "Factors Influencing Consumer Buying Behaviour: A Case Study" Available at https://globaljournals.org/GJMBR_Volume14/4-Factors-Influencing-Consumer-Buying.pdf .

An Examination of Informational Efficiency of Indian Stock Market in Post-reform Era

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Abstract

As a part of regulatory, structural and operational reforms carried out in Indian stock market in the post-reform era, the corporate action of stock split was introduced in India in the year 1999. In the present study, market efficiency of Indian stock market in semi-strong form in the post-reform period has been examined using stock split data for a period of seventeen years from April 2000 to March 2017. For analyzing impact of stock split on shareholders' wealth surrounding all the event dates concerning the split, standard event study methodology based on all the three models (namely, market model, mean adjusted returns and market adjusted returns) has been employed in the study. Additionally, in order to eliminate the influence of size, industry affiliation and time related factors on sample firms' stock price performances within the event windows, a size-matched control sample also has been constructed for the study.

The behavior of abnormal return observations surrounding the split proposal date lends support to efficiency of Indian stock market in semi-strong form as the information content of proposal day is impounded fully into stock prices well before proposal date and the observed pre-proposal date positive abnormal returns do not sustain rather get reversed wiping-out most of the positive gains generated earlier. In case of announcement date, however, no significant price effect of split is observed in the study. But, in the absence of revelation of any price-sensitive information, the observed ex-date market reaction of split is anomalous and inconsistent with weak form of market efficiency.

Keywords: Stock Split, Event Study, Abnormal Stock Return, Market Model, Informational Efficiency.

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With the objectives to enhance the operating, informational and allocative efficiency of Indian stock market, the government and market regulators have undertaken a series of far-reaching legislative, structural and operational measures in the post-reform era and as a part of the continuous endeavour of the government and market regulators towards that direction, stock split was introduced in the country in the year 1999. Stock split means sub-division of an existing equity share into a number of parts by reducing its par value to a smaller denomination, just like exchanging a hundred rupees currency note into a number of currency notes of lesser denomination. Thus, theoretically, it is an aesthetic transaction which neither creates nor destroys any value to the splitting firm or to its shareholders. Though the number of shares outstanding increases as a result of split, total share capital, market capitalisation and capital structure of the splitted firm remain unchanged in the post-split period as well as the total value of holdings of each shareholder and hence their proportionate ownership in the splitted firm remain the same as before the split in the post-split period.

But, in spite of having no real significance, a large number of stock split occurs every year around the globe and stock market reacts significantly on announcement and execution of such splits (as documented in a large number of empirical studies carried out in the context of global stock markets and a few in India). Thus, there exist some beneficial effects, either perceived or real, of stock split which conventional financial theory cannot explain and this has opened up a wide and relatively new dimension of financial study called 'behavioural finance'.

In the present study, an attempt has been made to capture empirically the market reaction to stock split and its resulting impact on the shareholders' wealth surrounding all the event dates concerning a split in Indian stock market using a sample of stock split occurred so far up to March 2017 employing a more refined methodology compared to those used in earlier studies in the context of Indian bourses with the objective to examine the informational efficiency of Indian stock market in the post-reform period. Accordingly, the paper has been organised as follows. The next section reviews in brief, the existing literature on the issue pertaining to global and Indian stock markets. The research gaps identified from such survey, particularly in respect of Indian stock market and major objectives of the study have been listed out in sections III and IV respectively. The data base used and methodology employed in analysing collected data set along with logic behind applying them have been described in Section V. Section VI reports observed behaviour of stock returns surrounding the event dates of stock split section-wise along with discussion followed by conclusions and limitations of the study in Section VII.

Section II: Review of existing literature

The corporate event of stock split has mystified the scholars in finance for long time as stock markets react significantly on announcement and execution of stock splits [Barker (1956, 1959), Fama et al. (1969), Chottiner and Young (1971), Leland and Pyle (1977), Bar-Yosef and Brown (1977), Ross (1977), Charest (1978), Foster and Vickrey (1978), Choi and Strong (1983), Woolridge (1983), Eades et al. (1984), Grinblatt et al. (1984), Christopher et al. (1987), Lakonishok and Lev (1987), Lamoureux and Poon (1987), Brennan and Copeland (1988), Asquith et al. (1989), McNichols and Dravid (1990), Brennan and Hughes (1991), Maloney and Mulherin (1992), Conrad and Conroy (1994), Ikenberry et al. (1996), Muscarella and Vetsuypens (1996), Pilotte and Manuel (1996), Desai and Jain (1997), Conroy and Harris (1999), Kadiyala and Vetsuypens (2002), Goyenko et al. (2005) and many others] despite the fact that no direct or explicit consequences either from the view point of splitting firm or its stakeholders are associated with it. In order to explain such observed stock market reaction several theories have been developed over last forty-five years pioneered by Fama et al. (1969). Apart from such fundamental works, a numerous empirical studies have also been undertaken by the finance scholars worldwide to justify the observed stock market reactions from a wide variety of angles. The two traditional explanations for this stock market reaction on announcement and/or execution of a split are – information signalling and liquidity.

Academic researches generally interpret the positive stock market reaction to stock split as the signalling of managers' favourable internal information about the performance and prospect of the firms to the market [Fama et al. (1969), Leland and Pyle (1977), Ross (1977), McNichols and Dravid (1986), Lakonishok and Lev (1987), Brennan and Copeland (1988), Asquith et al. (1989), McNichols and Dravid (1990), Brennan and Hughes (1991), Ikenberry et al. (1996), Muscarella and Vetsuypens (1996), Pilotte and Manuel (1996), Desai and Jain (1997), Conroy and Harris (1999), Easley et al. (2001), Goyenko et al. (2005), etc.]. On the other hand, practitioners claim that firms split their stocks to restore their stock prices, which increased considerably during an unusually growth period, to a lower and more favourable trading range to make their stocks more attractive and affordable to new small and wealth constrained investors. However, empirical evidence is mixed on liquidity hypothesis of stock split, with some studies reporting improvements in post-split liquidity [Black (1986), Maloney and Mulherin (1992), Ikenberry et al. (1996), Kryzanowski and Zhang (1996), Muscarella and Vetsuypens (1996), Angel et al. (1997), Schultz (1999), Dennis and Strickland (2002), etc.] while others showing reduction (or no change) in liquidity following a split [Copeland (1979), Lakonishok and Lev (1987), Lamoureux and Poon (1987), Defeo and Jain (1989), Conroy et al. (1990), Arnold and Lipson (1997), Desai et al. (1998), Lipson (1999), Schultz (2000), Easley et al. (2001), Goyenko et al. (2005), etc.].

Apart from the above two traditional explanations, a number of empirical studies have examined impact of split on several other firm-specific factors like, volatility of stock returns, ownership structure optimal tick size bid-ask spread and transaction cost tax-option value of the stock, etc. [Barker (1956), Choi and Strong (1971), Chottiner and Young (1971), Copeland (1979), Constantinides (1984), Eades et al. (1984), Grinblatt et al. (1984), Ohlson and Penman (1985), Black (1986), O'Hara and Oldfield (1986), Brennan and Copeland (1987, 1988), Lakonishok and Lev (1987), Lamoureux and Poon (1987), Dubofsky and French (1988), Sheikh (1989), Conroy et al. (1990), Dubofsky (1991), Easley et al. (2001), Lukose PJ and Rao (2002), Dennis and Strickland (2003), Angel et al. (2004), Jog and Zhu (2004), Goyenko et al. (2005), Banerjee et al. (2012), etc.] which may be regarded as the variants of the well-documented two effects of stock split mentioned earlier.

Stock split was introduced in our country by the market regulators in the year 1999 as a part of initiatives undertaken enhance efficiency of stock market of our country. So, it seems important to examine the informational efficiency of Indian stock market using split information particularly in the absence of comprehensive empirical study in this area.

Section III: Research gaps identified from the earlier studies

Indian studies on stock split was pioneered by Lukose and Rao (2002) and thereafter a number of empirical as well as survey-based studies have been carried out by different scholars in Indian context documenting mixed evidences on its impact on shareholders' wealth. In the light of shortcomings of such studies, we have identified a number of research gaps. (i) None of the earlier studies has considered the effects of industry-specific, size and time-related factors on sample firms' stock prices while analyzing abnormal returns surrounding the event dates of stock split. (ii) No single study was found in Indian context which taken into account all the three important and relevant dates concerning a stock split which appear in chronological order and posses different significance namely, split proposal date, split announcement date and ex-split date [in the study of Banerjee et al. (2010) announcement and ex-split dates were considered]. (iii) In all the earlier studies abnormal returns of sample firms within the event window were estimated using market model only without ensuring that the findings do not influence critically for using other models namely, mean-adjusted returns and market-adjusted returns. (iv) None of the earlier studies has considered all the stock splits occurred in Indian stock market while selecting final sample.

In the present study we have made a modest attempt to cover up the above mentioned research gaps by using better data base and employing more refined methodology.

Section IV: Objectives of the study

The primary objective of the study is to examine empirically the efficiency of Indian stock market in the post-reform era by analyzing impact of stock split on stock returns and hence on shareholders wealth surrounding all the important event dates concerning a split. To serve the purpose, this broad objective of the study is sub-divided into its component parts as:

(i) To examine impact of stock split on shareholders' wealth on and around stock split proposal date.
(ii) To examine impact of stock split on shareholders' wealth on and around stock split announcement date.
(iii) To examine impact of stock split on shareholders' wealth on and around ex-split date.
(iv) To examine efficiency of Indian stock market using observed market reactions to stock split on and around these dates.

Section V: Data Base and Methodology

For the study, initially all the splits undertaken by BSE listed companies during the period from 14th June, 1999 (the date of granting permission by SEBI to stock split in Indian stock market) to 31st March, 2017 have been identified from two data base packages 'Capitaline' and 'Prowess'; and website of BSE and SEBI. After identifying a total of 1106 splits occurred during the period, the sample firms which did not satisfy any or more of the following criteria have been excluded from the initial sample:

(i) The splitted firm did not announce any other price-sensitive corporate events, like, earnings announcement, dividend announcement, announcement of bonus issue, right issue, buy back of shares, merger, acquisition, etc within any of the event window of the study (to avoid contamination effects).
(ii) All the three event dates concerning the split are available in any of the data sources mentioned above.
(iii) Daily closing share prices are available for at least one year ending on three months prior to split proposal date and one year starting on three months after the ex-split date.
(iv) Daily closing share prices are available for thirty one trading days (being event/estimation window for the study) centered on each of the event dates of split.

By applying the above screening criteria, the number of splits is reduced to 393 from 1106 initially identified representing 26 broad industries [676, 23 and 14 firms failed to satisfy criteria (i), (ii) and (iii) & (iv) respectively mentioned above]. From these, a sample of 30 splits have been drawn by selecting one split from each industry randomly and the remaining 4 splits from remaining 367 splits by applying the technique of simple random sampling without replacement so that our sample has representation from all the broad industries and the findings of the study can be generalized. The reason for considering such a sample size for the study is that a sample size of 30 is considered as a large sample in statistical sense and usually results in a sampling distribution of mean that is very close to a normal distribution [Stutely (2003) and Saunders et al. (2011)].

The dates concerning the sample splits - stock split proposal date (the date of board meeting in which proposal to split is taken), split announcement date (the date of AGM/EGM in which shareholders approve and announce the split) and effective or ex-split date (the date on and from which splitted shares are traded at split-adjusted prices) have been collected primarily from 'Capitaline' and 'Prowess' data base packages and for some firms from various other sources like, financial dailies, magazines, published annual reports and website of the concerned firms, websites of BSE, NSE, SEBI, etc. All other data required for the study have been collected from Capitaline and Prowess database packages.

A control sample for the study also has been constructed by matching each sample firm with a non-splitted firm from the same industry in which sample firm belongs that has net worth (indicating size of shareholders' fund), net sales (indicating market share) and market capitalization (indicating stock market performance) as close as possible to the sample firm in the year preceding the split. The ex-date stock prices of both sample and control firms have been adjusted properly for any bonus issue, right issue, stock split (direct) or reverse stock split in order to make them comparable with the cum-date quotations.

For conducting event study [developed by Ball and Brown (1968) and used first by Fama et al. (1969)], the normal returns of each sample firm for each day within the event/estimation window (day -30 to day 30, where event day is denoted as day 0) have been estimated first using market model which hypothesizes the following return-generating process:

$$\ln R_{it} = \alpha_i + \beta_i \ln R_{mt} + \varepsilon_{it}$$

where R_{it} is the price relative of security i for the period t; R_{mt} is the return on market index for the period t; l_n implies natural logarithm; α_i and β_i are the parameters of market model and ε_{it} is a random disturbance term. It is assumed that ε_{it} satisfies the usual assumptions of the linear regression model. However, as a robustness check, all computations also have been made using the arithmetic form of market model (i.e., $R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}$) but the results agree with those presented in the paper in all major aspects.

The values of market model parameters for each sample firm have been estimated applying OLS principle using return data of daily closing stock prices and daily closing values of BSE-Sensex for a period of one year ending on three months prior to the split proposal month of respective split. The normal returns of each sample security within the event/estimation windows have been estimated using the fitted market lines. A 31-day event window centered on the event date under consideration has been chosen for the study, where day '0' denotes event date; and day '-1' and '1', denote the days immediately preceding and following the day '0' respectively and all other days within the event window have been denoted accordingly.

To investigate unusual behaviour of stock returns, 'Abnormal Return' (AR) of each sample firm for each day within the event window has been estimated as:

$$AR_{it} = R_{it} - \hat{R}_{it}$$

where AR_{it}, R_{it} and $\hat{R}_{it}$ are the abnormal return, realised return and estimated normal return of the security i on date t respectively.

The abnormal return observations have been aggregated and averaged cross-sectionally for each day within the event window thereafter to examine overall impact of stock split on stock returns as:

$$AAR_t = \frac{1}{N}\sum_{i=1}^{N} AR_{it} \text{ ; and } CAAR_t = \sum_{k=-15}^{t} AAR_k$$

Where AAR_t is the average abnormal return for day t and $CAAR_t$ is the cumulative average abnormal return for each day t, where $-15 \leq t \leq 15$). N is the number of firms included in computing cross-sectional AAR_t.

To examine the significance of AAR_t for each day within each of the event windows, a cross-sectional t-test has been performed with the following test statistic:

$$t = \sqrt{N} * \frac{AAR_t}{s'}$$ which follows t distribution with degrees of freedom n-1.

where N is the number of sample firms; s' is the unbiased standard deviation of AR_{it} and is given by:

$$s' = \sqrt{\frac{1}{N-1}\sum_{i=1}^{N}\left(AR_{it} - AAR_t\right)^2}$$

In order to examine the behavior of AAR observations in different sub-periods within the event window (if any), AARs for different holding periods have been computed and their statistical significance have been tested separately applying the following t-test:

$$t = \sqrt{n} * \frac{\overline{AAR_t}}{s'} \sim t_{n-1}$$

where n is the number of AAR_t within the holding period under consideration; $\overline{AAR_t}$ is the mean of AAR_t (= $1/n \sum AAR_t$); and s' is the unbiased standard deviation of AAR_t..

For eliminating the effect of industry-specific factors, size and time-related factor (if any) on sample firms stock prices, we have computed control firm-adjusted abnormal returns of each sample firm i on each day t [$AR(C)_{it}$] within each of the event windows as:

$AR(C)_{it}$ = Abnormal return of sample firm i on day t - Abnormal return of the corresponding matched control firm on day t

Control firms-adjusted average abnormal return AAR(C) and control firm-adjusted cumulative average abnormal return CAAR(C) on each day within the event window have been computed and their significance have been tested using the similar methodology as used for sample firms (unadjusted).

Additionally, in order to check that our findings do not depend critically on the method of estimating abnormal returns, we have also conducted the event study using mean adjusted returns and market adjusted returns [Masulis (1980), Grinblatt et al.(1984), Brown and Warner (1985), Brown and Weinstein (1985), MacKinlay (1997) etc.]. Specifically, market adjusted returns around the event dates have been computed by subtracting returns on BSE-Sensex (as a proxy for return on market portfolio) from the actual returns. The mean adjusted return for a sample security *i* on day *t* (Z_{it}) has been computed as: $Z_{it} = r_{it} - U_i$, where r_{it} is the realized return for security *i* on day *t* and U_i is the average return of the security i for a period of 90 days starting from one month following the ex-split date.

Section VI: Empirical findings and discussion

In the study, behaviour of cross-sectional average abnormal returns and cumulative average abnormal returns, both unadjusted [i.e., AAR_t and $CAAR_t$] and control firm-adjusted [i.e., $AAR(C)_t$ and $CAAR(C)_t$] surrounding each of the event dates as well as for different holding period within each event window have been analysed, but inferences of the study have been made based primarily on the observed behaviour of control firm-adjusted abnormal return observations.

Market reaction to stock split on and around its proposal date

It is evident from Table-1 that negative AARs of 1.5% .30% and .78% are observed on split on days 0, -1 and -2 respectively (though not significant statistically). It is further evident that a statistically significant positive AAR of 2.11% is observed on day -3 and that is not due to outliers as more than 73% of the sample firms observe positive AR on that date. The AARs for all other days in the pre-proposal period are insignificant except for days -9 (1.65%), -11(1.74%) and -13 (-2.81%). In case of post-proposal period, significantly negative AARs of 2.12% and 1.89% are observed on days +2 and +5 respectively and only significant positive AAR occurs on day +15 (3%).

In case of AAR(C), it is seen from Table-1 that like AARs, the sample firms observe negative AAR(C) on days 0 (1.1%) and -1(1.63% though none of them is statistically significant. Also, the sample firms observe a significantly positive AAR(C) of 3.97% on day -3 and a vast majority of sample firms (70%) experience positive AAR(C) on this day. The AAR(C)s for the entire pre-proposal period are predominantly positive with only four negative AAR(C)s though all except for day -3 are statistically insignificant. Though a statistically significant positive AAR(C) of 4.69% is observed on day 9, we observe (Table-1) significantly negative AAR(C)s on the days 2, 5 and 12 respectively diminishing shareholders' wealth on these dates. The observed behaviour of AARs and AAR(C)s around the proposal date demonstrates that the information content of stock split is reflected in stock prices well before the proposal date yielding a positive CAAR and CAAR(C) of 5.8% and 11.75% respectively on day -3. Thus, stock prices adjust to the information fully by the day -3 enhancing shareholders' value in the pre-proposal period.

It is also observed from Tables-2 & 3 and Figure-1 that neither *AAR*s nor AAR(C)s follow any systematic pattern in their movements either in the pre-proposal period (i.e., day -15 to day -1), post-proposal period (i.e., day 1 to day 15) or the entire period (i.e., day -15 to day 15) around proposal date; and average abnormal returns for all these periods are statistically insignificant. So, it is also not possible for an investor to earn above normal returns by dealing with splitting stocks either in the pre or post-proposal period lending support to the efficiency of the market in semi-strong form.

It is also worth noting that positive abnormal returns observed up to day -3 do not sustain and get reversed thereafter wiping-out most of the positive gains generated earlier. Thus, investors' euphoria regarding stock splits perishes within a very short period of time. It may be due to the fact that investors react positively upon the release of information on prospective splits and thereafter evaluate the fundamentals of the companies concerned which drive the prices nearer to their normal levels. Again, large and informed institutional investors who are supposed to keep close watch and have more predictive power on corporate happenings may buy the stocks going for split before hand and quit when the prices are at their peaks while the smaller and retail investors entice to buy the stocks immediately before the proposal date when the stocks have already become over-priced and later on suffer the maximum in the post-proposal period due to rapid decline in share prices. The findings on behaviour of abnormal returns surrounding the stock split proposal date, thus, convey connotation to small and less informed investors in dealing with stocks those going for splits as well as to the regulatory authorities of stock market whose prime concern is to protect the interest of investors, more importantly small investors, dealing in stock market in India.

Market reaction to stock split on and around its approval (announcement) date

The empirical results relating to market reaction on stock split announcement (Tables 6) demonstrate that there is no significant impact of stock split on stock returns and hence on shareholders' wealth on and around split announcement date. As announcement date contains no new or additional information to convey to the financial market, market does not attach any importance to this date. However, positive abnormal returns observed by some sample firms (though their significance has not been tested) on different days within the event window may be due to revelation of split information for those firms for which the proposal news were not published in financial media. Our results thus lending support to the findings of a very few Indian studies [Gupta and Gupta (2007), Joshipura (2009), Alex et al. (2011) Joshipura (2013) and Pooja (2013)] contradict the findings of most of the Indian studies where significantly positive abnormal returns were observed on and closely surrounding the announcement date of stock split [, Singh (2010), Chavali and Zahid (2011), Ghatak (2011), Ray (2011), Chakraborty (2012), Rajesh (2013), Singh and Sapna (2013), Bhuvaneshwari and Ramya (2014), Thirunellai (2014), etc.]. However, in those studies where positive announcement effects of splits were observed, the authors [except Banerjee et al. (2010)] did not consider the proposal date while analysing market reaction to stock split and used a longer event window. Thus their results might be contaminated by the proposal day's effects and the observed positive effects might be attributed to post-proposal effects, rather than announcement effects of stock splits. The insignificant values of mean AAR and AAR(C) (Tables 5 & 6) for all the holding periods covering pre, post and entire approval periods imply that it is not possible for investors to earn excess return by formulating any trading strategy on the splitting stocks around the split announcement date. Figure-2 depicts that all the return series behave randomly during the entire event window.

Market reaction to stock split on and around ex-split date

Table-7 reveals that like proposal date, market reacts significantly and favourably on execution of stock split enhancing shareholders value on ex-day and day immediately after the ex-day (in case of unadjusted average abnormal returns on Day 2 also). It may be due to the fact that the investors get attracted to splitted stock for its lower prices but thereafter reassess the fundamentals of the companies that drives the prices to their normal levels. In addition, the observed market reaction may reflect revelation of split information for a number of small and less-known firms for which neither the proposal nor approval news had been published in leading financial media. The observations are in consistent with the findings of earlier studies in Indian context [Lukose PJ and Rao (2002), Gupta and Gupta (2007), Chakraborty (2012), Joshipura (2013) and others] except that of Mishra (2007) who found negative wealth effect associated with execution of splits. From Tables-8 & 9 and Figure-3, it is seen that the mean AAR and AAR(C) for the pre-split period, post-split period and the entire event window are all insignificant implying that it is not possible for an investor to gain abnormal returns in a consistent manner by dealing with the splitting stocks in any of the pre or post-split period.

Finally, to check that our findings do not depend critically on the method of estimating abnormal returns, we have repeated the event study using both market adjusted returns and mean adjusted returns [Masulis (1980), Grinblatt et al. (1984), Brown and

Warner (1985), brown and Weinstein (1985), MacKinlay (1997), Lukose PJ and Rao (2002) and others] on each of the three event dates concerning split. But, the basic findings of the study do not differ in any significant manner or qualitatively and hence are not reported.

Section VII: Conclusions

Empirical findings of the study document that the information content of stock split is reflected in stock prices well before the proposal date and is impounded fully into stock prices by the day -3 enhancing shareholders' wealth during this period. But those positive abnormal returns get reversed thereafter and wipe-out most of the positive gains generated earlier dipping shareholders' value during this period. Thus, investors' euphoria regarding stock splits is very transitory and perishes within a very short period of time. The financial market does not attach any importance to split announcement and hence no alteration of shareholders' value is associated with this date. Like proposal date, ex-date effect is also pronounced in Indian stock market with significant stock price reaction on the ex-day and consecutive two days immediately following the ex-day. But, in the absence of revelation of any new or additional information on this date, the observed price reaction surrounding this date is anomalous and difficult to explain. The observed behaviour of abnormal return observations within each of the event windows also provides evidence on efficiency of Indian stock market in semi-strong form as it is not possible for a market participant to beat the market in a systematic manner by dealing with splitting stocks either in the pre-event or post-event period. Additionally, The upsurge of abnormal returns well before the formal proposal of split and thereafter getting reversed convey connotation to small and less informed investors dealing with stocks going for splits as well as to the regulatory authorities of stock market whose prime concern is to protect the interest of investors, more importantly small investors, dealing in stock market in India.

Limitations of the study

The present suffers from some limitations. Firstly, the study is highly sensitive to event dates of stock splits which have been collected and verified from different secondary sources mentioned in the study as well as entire analysis of the study is based on secondary sources of official data. So, findings of the study entirely depend on their accuracy and reliability. Secondly, the study is based on analysis of data pertaining to BSE only.

Table- 1: Cross-sectional Average Abnormal Returns [AARs] and Control Firm Adjusted Average Abnormal Returns [AAR(C)s] surrounding Stock Split Proposal Date

Day	Unadjusted	Control-firm Adjusted

relative to Split Proposal Date	*AAR*	*t*-value	*CAAR* (%)	% of *AR*>0	*AAR(C)* (%)	*t*-value	*CAAR(C)* (%)	% of *AR(C)*>0
Day -15	-0.0084	-0.708	-0.0084	40.00	0.0006	0.029	0.0006	40.00
Day -14	0.0095	0.806	0.0011	46.67	0.0311	1.378	0.0317	56.67
Day -13	-0.0281	-2.141**	-0.0270	36.67	-0.0257	-1.243	0.0060	46.67
Day -12	-0.0045	-0.372	-0.0315	50.00	0.0024	0.123	0.0084	56.67
Day -11	0.0174	2.155**	-0.0141	70.00	0.0065	0.505	0.0149	70.00
Day -10	0.0122	1.520	-0.0019	56.67	0.0142	0.909	0.0291	53.33
Day -9	0.0165	1.798***	0.0146	70.00	0.0206	0.990	0.0497	50.00
Day -8	0.0025	0.240	0.0171	50.00	-0.0211	-1.109	0.0286	46.67
Day -7	-0.0051	-0.556	0.0120	40.00	-0.0070	-0.441	0.0216	53.33
Day -6	0.0105	0.786	0.0225	66.67	0.0025	0.124	0.0241	50.00
Day -5	0.0041	0.453	0.0266	46.67	0.0270	1.259	0.0511	63.33
Day -4	0.0103	1.040	0.0369	53.33	0.0267	1.224	0.0778	66.67
Day -3	0.0211	2.076**	0.0580	73.33	0.0397	2.086**	0.1175	70.00
Day -2	-0.0078	-0.712	0.0502	40.00	0.0091	0.423	0.1266	60.00
Day -1	-0.0030	-0.309	0.0472	46.67	-0.0163	-0.727	0.1103	46.67
Day 0	-0.0150	-1.356	0.0322	46.67	-0.0110	-0.488	0.0993	56.67
Day 1	-0.0090	-0.859	0.0232	36.67	0.0012	0.068	0.1005	60.00
Day 2	-0.0212	-1.685***	0.0020	33.33	-0.0265	-1.523***	0.0740	36.67
Day 3	0.0039	0.295	0.0059	53.33	0.0053	0.267	0.0793	56.67
Day 4	-0.0052	-0.399	0.0007	50.00	0.0141	0.767	0.0934	56.67
Day 5	-0.0189	-2.268**	-0.0182	33.33	-0.0408	-2.039***	0.0526	40.00
Day 6	-0.0086	-1.016	-0.0268	46.67	-0.0042	-0.252	0.0484	50.00
Day 7	-0.0024	-0.246	-0.0292	50.00	0.0171	0.834	0.0655	63.33
Day 8	0.0086	0.715	-0.0206	56.67	0.0143	1.138	0.0798	60.00
Day 9	0.0173	1.608	-0.0033	60.00	0.0469	2.351**	0.1267	56.67
Day 10	-0.0066	-0.558	-0.0099	40.00	-0.0046	-0.315	0.1221	40.00
Day 11	0.0006	0.051	-0.0093	36.67	-0.0085	-0.499	0.1136	36.67

Day 12	-0.0067	-0.633	-0.0160	43.33	-0.0285	-1.675***	0.0851	33.33
Day 13	-0.0074	-0.613	-0.0234	33.33	-0.0207	-1.170	0.0644	40.00
Day 14	0.0095	0.819	-0.0139	53.33	-0.0094	-0.648	0.0550	40.00
Day 15	0.0300	2.809*	0.0161	73.33	0.0215	1.347	0.0765	56.67

Note: ** and *** imply significance at 5% and 10% levels respectively.

Table- 2: Mean and Cumulative Average Abnormal Returns for Different Holding Periods within the Proposal Date Event Window

Holding Periods	No. of Days	Mean AARs	Standard Deviations of AARs	Standard Errors (S.E.) of Mean	t-values	CAARs
Day -15 to Day -1	15	0.0031	0.01289	0.00333	0.945	0.0472
Day 1 to Day 15	15	-0.0011	0.01336	0.00345	-0.311	-0.0161
Day -15 to Day 15	31	0.0005	0.01318	0.00237	0.219	0.0161
Day -7 to Day -1	7	0.0043	0.01037	0.00392	1.097	0.0301
Day 1 to Day 7	7	-0.0088	0.00886	0.00335	-2.619**	-0.0614
Day -7 to Day 7	15	-0.0031	0.01154	0.00298	-1.036	-0.0463
Day -5 to Day 5	11	-0.0037	0.01282	0.00386	-0.958	-0.0407
Day -2 to Day 2	5	-0.0112	0.00704	0.00315	-3.559**	-0.0560
Day -1 to Day 1	3	-0.009	0.006	0.0035	-2.598	-0.027

Note: ** implies significance at 5% level.

Table- 3 Control Firm-Adjusted Mean and Cumulative Average Abnormal Returns for Different Holding Periods within the Proposal Date Event Window

Holding Periods	No. of Days	Mean AAR(C)s	Standard Deviations of AAR(C)s	Standard Errors (S.E.) of Mean	t-values	CAAR(C)s
Day -15 to Day -1	15	0.0074	0.0196	0.0051	1.456	0.1103
Day 1 to Day 15	15	-0.0015	0.0226	0.0058	-0.260	-0.0228
Day -15 to Day 15	31	0.0025	0.0211	0.0038	0.653	0.0765
Day -7 to Day -1	7	0.0117	0.0203	0.0077	1.523	0.0817
Day 1 to Day 7	7	-0.0048	0.0214	0.0081	-0.598	-0.0338

Day -7 to Day 7	15	0.0025	0.0213	0.0055	0.447	0.0369
Day -5 to Day 5	11	0.0026	0.0245	0.0074	0.351	0.0285
Day -2 to Day 2	5	-0.0087	0.0141	0.0063	-1.380	-0.0435
Day -1 to Day 1	3	-0.0087	0.0090	0.0052	-1.679	-0.0261

Figure 1: Behaviour of Average Abnormal Returns (AARs) of sample firms and control firms along with control firm-adjusted AARs [AAR(C]s surrounding the split proposal date

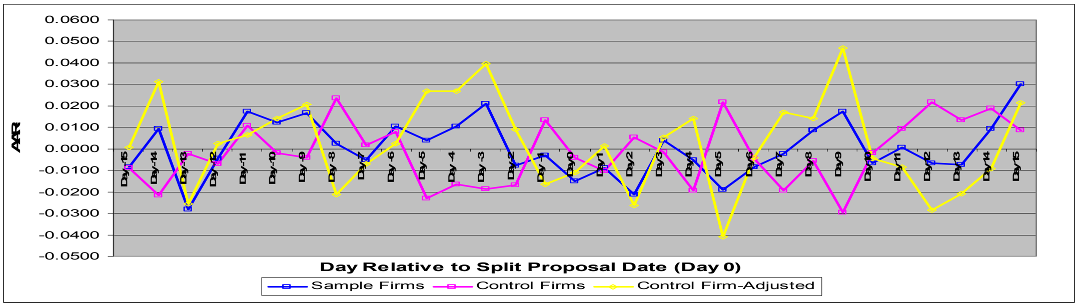


Table- 4: Cross-sectional Average Abnormal Returns [AARs] and Control Firm Adjusted Average Abnormal Returns [AAR(C)s] surrounding Stock Split approval (Announcement) Date

Day relative to Split Approval Date	Unadjusted				Control-firm Adjusted			
	AAR	*t*-value	*CAAR* (%)	% of *AR*>0	*AAR(C)* (%)	*t*-value	*CAAR(C)* (%)	% of *AR(C)*>0
Day -15	-0.0027	-0.258	-0.0027	70.00	-0.0061	-0.312	-0.0061	53.33
Day -14	-0.0064	-0.502	-0.0091	46.67	0.0097	0.426	0.0036	60.00
Day -13	0.0025	0.262	-0.0066	66.67	0.0197	1.193	0.0233	70.00
Day -12	-0.0075	-0.882	-0.0141	60.00	-0.0386	-2.19**	-0.0153	60.00
Day -11	-0.0088	-0.955	-0.0229	53.33	-0.0078	-0.622	-0.0231	36.67
Day -10	-0.0028	-0.270	-0.0257	56.67	-0.0014	-0.080	-0.0245	50.00
Day -9	0.0094	1.008	-0.0163	60.00	0.0212	1.183	-0.0033	53.33

Day -8	0.0040	0.539	-0.0123	70.00	-0.0197	-1.217	-0.023	50.00
Day -7	-0.0074	-0.997	-0.0197	50.00	-0.0222	-1.146	-0.0452	40.00
Day -6	0.0130	1.305	-0.0067	56.67	-0.0118	-0.716	-0.057	43.33
Day -5	-0.0055	-0.515	-0.0122	50.00	0.0179	0.858	-0.0391	53.33
Day -4	0.0060	0.536	-0.0062	60.00	0.0011	0.058	-0.0380	53.33
Day -3	0.0088	0.695	0.0026	60.00	-0.0096	-0.608	-0.0476	56.67
Day -2	0.0056	0.599	0.0082	56.67	0.0059	0.317	-0.0417	46.67
Day -1	0.0034	0.325	0.0116	50.00	0.0069	0.487	-0.0348	63.33
Day 0	0.0019	0.160	0.0135	33.33	0.0541	1.146	0.0193	43.33
Day 1	0.0111	0.084	0.0246	50.00	0.0102	0.651	0.0295	56.67
Day 2	-0.0117	-0.823	0.0129	46.67	0.0076	0.871	0.0371	60.00
Day 3	0.0122	1.050	0.0251	43.33	0.0108	0.869	0.0479	56.67
Day 4	-0.0105	-0.818	0.0146	50.00	-0.0043	-0.258	0.0436	53.33
Day 5	-0.0048	-0.460	0.0098	53.33	-0.0018	-0.090	0.0418	53.33
Day 6	-0.0134	-1.522	-0.0036	43.33	-0.0130	-0.847	0.0288	56.67
Day 7	-0.0073	-1.199	-0.0109	53.33	-0.0058	-0.410	0.0230	43.33
Day 8	0.0047	0.410	-0.0062	53.33	-0.0112	-0.657	0.0118	56.67
Day 9	0.0025	0.265	-0.0037	53.33	-0.0190	-0.876	-0.0072	50.00
Day 10	-0.0033	-0.299	-0.0070	43.33	0.0128	0.604	0.0056	46.67
Day 11	-0.0055	-0.475	-0.0125	46.67	0.0030	0.168	0.0086	43.33
Day 12	0.0100	1.026	-0.0025	56.67	-0.0004	-0.034	0.0082	46.67
Day 13	-0.0009	-0.098	-0.0034	43.33	-0.0097	-0.550	-0.0015	36.67
Day 14	-0.0060	-0.780	-0.0094	50.00	-0.0015	-0.112	-0.0030	43.33
Day 15	0.0009	0.105	-0.0085	66.67	-0.0032	-0.241	-0.0062	50.00

Note: ** implies significance at 5% level.

Table- 5: Mean and Cumulative Average Abnormal Returns for Different Holding Periods within the Approval Date (Announcement Date) Event Window

Holding Periods	No. of Days	Mean AARs	Standard Deviations of AARs	Standard Errors (S.E.) of Mean	t-values	CAARs
Day -15 to Day -1	15	0.0008	0.0071	0.0018	0.423	0.0116
Day 1 to Day 15	15	-0.0015	0.0082	0.0021	-.690	-0.022
Day -15 to Day 15	31	-0.0003	0.0075	0.0013	-0.203	-0.0085
Day -7 to Day -1	7	0.0034	0.0074	0.0028	1.220	0.0239
Day 1 to Day 7	7	-0.0035	0.0107	0.0041	-.860	-0.0244
Day -7 to Day 7	15	0.0001	0.0092	0.0024	0.039	0.0014
Day -5 to Day 5	11	0.0015	0.0084	0.0025	0.591	0.0165
Day -2 to Day 2	5	0.0021	0.0084	0.0038	0.545	0.0103
Day -1 to Day 1	3	0.0055	0.0049	0.0028	1.918	0.0164

Table- 6: Control Firm-Adjusted Mean and Cumulative Average Abnormal Returns for Different Holding Periods within the Approval Date (Announcement Date) Event Window

Holding Periods	No. of Days	Mean AAR(C)s	Standard Deviations of AAR(C)s	Standard Errors (S.E.) of Mean	t-values	CAAR(C)s
Day -15 to Day -1	15	-0.0023	0.0168	0.0043	-0.534	-0.0348
Day 1 to Day 15	15	-0.0017	0.0094	0.0024	-0.704	-0.0255
Day -15 to Day 15	31	-0.0002	0.0166	0.0030	-0.067	-0.0062
Day -7 to Day -1	7	-0.0017	0.0136	0.0051	-0.328	-0.0118
Day 1 to Day 7	7	0.0005	0.0091	0.0035	-0.153	0.0037
Day -7 to Day 7	15	0.0031	0.0178	0.0046	0.669	0.0460
Day -5 to Day 5	11	0.0090	0.0168	0.0051	1.769	0.0988
Day -2 to Day 2	5	0.0169	0.0208	0.0093	1.818	0.0847
Day -1 to Day 1	3	0.0237	0.0264	0.0152	1.560	0.0712

Figure 2: Behaviour of Average Abnormal Returns (AARs) of sample firms and control firms along with control firm-adjusted AARs [AAR(C]s surrounding split announcement date

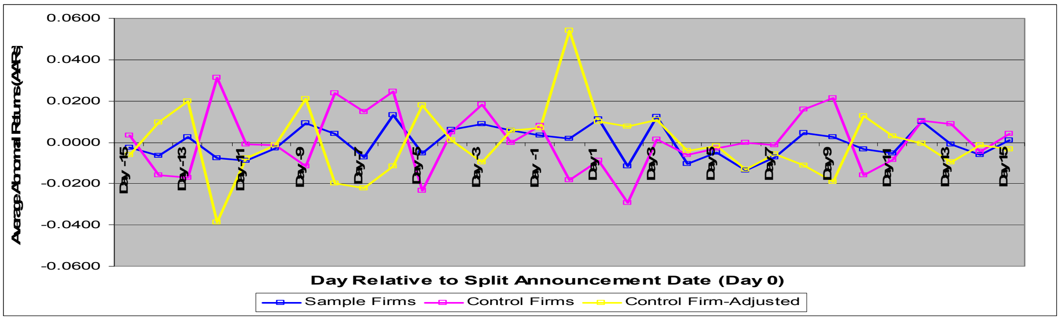


Table- 7: Cross-sectional Average Abnormal Returns [AARs] and Control Firm Adjusted Average Abnormal Returns [AAR(C)s] surrounding Ex-split Date

Day relative to Ex-split Date	Unadjusted				Control-firm Adjusted			
	AAR	*t*-value	*CAAR* (%)	% of *AR*>0	*AAR(C)* (%)	*t*-value	*CAAR(C)* (%)	% of *AR(C)*>0
Day -15	0.0096	0.835	0.0096	50.00	0.0137	0.855	0.0137	56.67
Day -14	0.0010	0.121	0.0106	43.33	-0.0190	-1.340	-0.0053	60.00
Day -13	0.0046	0.617	0.0152	36.67	-0.0088	-0.621	-0.0141	50.00
Day -12	-0.0163	-1.797***	-0.0011	33.33	-0.0204	-1.372	-0.0345	33.33
Day -11	-0.0098	-1.284	-0.0109	33.33	-0.0009	-0.069	-0.0354	43.33
Day -10	0.0069	0.932	-0.0040	60.00	0.0136	0.943	-0.0218	70.00
Day -9	-0.0058	-0.598	-0.0098	43.33	0.0186	1.177	-0.0032	53.33
Day -8	-0.0002	-0.026	-0.0100	53.33	0.0114	0.861	0.0082	46.67
Day -7	-0.0029	-0.304	-0.0129	53.33	-0.0006	-0.041	0.0076	50.00
Day -6	-0.0119	-1.589	-0.0248	36.67	0.0009	0.055	0.0085	60.00
Day -5	-0.0092	-0.921	-0.0340	40.00	-0.0179	-1.575	-0.0094	56.67
Day -4	-0.0065	-1.044	-0.0405	53.33	-0.0076	-0.550	-0.0170	40.00
Day -3	0.0014	0.196	-0.0391	50.00	-0.0071	-0.620	-0.0241	50.00
Day -2	0.0045	0.816	-0.0346	60.00	-0.0149	-1.404	-0.0390	46.67
Day -1	0.0051	0.639	-0.0295	46.67	0.0049	0.355	-0.0341	53.33
Day 0	0.0139	1.227	-0.0156	56.67	0.0257	1.476**	-0.0084	70.33
Day 1	0.0364	3.02*	0.0208	70.00	0.0225	1.778***	0.0141	66.67

Day 2	0.0216	1.750***	0.0424	60.00	0.0009	0.055	0.0150	46.67
Day 3	-0.0020	-0.182	0.0404	50.00	0.0202	1.406	0.0352	63.33
Day 4	0.0003	0.040	0.0407	50.00	-0.0157	-1.071	0.0195	56.67
Day 5	0.0002	0.021	0.0409	40.00	-0.0096	-0.665	0.0099	53.33
Day 6	-0.0155	-1.551	0.0254	43.33	-0.0214	-1.570	-0.0115	60.00
Day 7	-0.0144	-1.600	0.0110	43.33	-0.0008	-0.044	-0.0123	50.00
Day 8	-0.0106	-1.276	0.0004	50.00	-0.0111	-0.818	-0.0234	56.67
Day 9	-0.0107	-1.002	-0.0103	56.67	-0.0074	-0.412	-0.0308	50.00
Day 10	-0.0084	-1.083	-0.0187	40.00	-0.0047	-0.279	-0.0355	53.33
Day 11	-0.0053	-0.553	-0.0240	50.00	-0.0089	-0.597	-0.0444	53.33
Day 12	-0.0091	-1.234	-0.0331	63.33	0.0010	0.075	-0.0434	53.33
Day 13	-0.0025	-0.326	-0.0356	50.00	0.0051	0.284	-0.0383	53.33
Day 14	0.0013	0.134	-0.0343	46.67	0.0314	2.431**	-0.0069	60.00
Day 15	-0.0141	-1.329	-0.0484	46.67	0.0205	1.361	0.0136	60.00

Note: ** and *** imply significance at 5% and 10% levels respectively.

Table- 8: Mean and Cumulative Average Abnormal Returns for Different Holding Periods within the Ex-split Date Event Window

Holding Periods	No. of Days	Mean AARs	Standard Deviations of AARs	Standard Errors (S.E.) of Mean	t-values	CAARs
Day -15 to Day -1	15	-0.0020	0.0077	0.0020	-0.993	-0.0295
Day 1 to Day 15	15	-0.0022	0.0141	0.0036	-0.600	-0.0328
Day -15 to Day 15	31	-0.0016	0.0113	0.0020	-0.767	-0.0484
Day -7 to Day -1	7	-0.0028	0.0067	0.0025	-1.097	-0.0195
Day 1 to Day 7	7	0.0038	0.0189	0.0071	0.532	0.0266
Day -7 to Day 7	15	0.0014	0.0140	0.0036	0.388	0.0210
Day -5 to Day 5	11	0.0060	0.0133	0.0040	1.488	-0.1653
Day -2 to Day 2	5	0.0163	0.0133	0.0059	2.75***	0.0815
Day -1 to Day 1	3	0.0185	0.0161	0.0093	1.981	0.0554

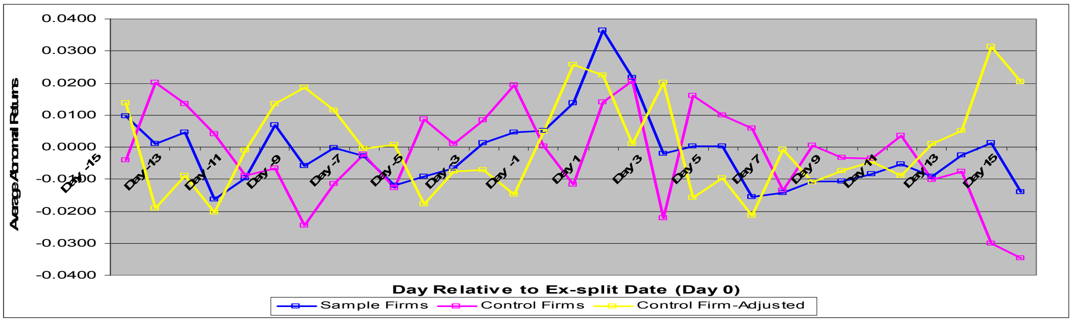
Note: *** indicates significance at 10% level.

Table-9: Control Firm-Adjusted Mean and Cumulative Average Abnormal Returns for Different Holding Periods within the Ex-split Date Event Window

Holding Periods	No. of Days	Mean AAR(C)s	Standard Deviations of AAR(C)s	Standard Errors (S.E.) of Mean	t-values	CAAR(C)s
Day -15 to Day -1	15	-0.0023	0.0128	0.0033	-0.687	-0.0341
Day 1 to Day 15	15	0.0015	0.0156	0.0040	0.365	0.022
Day -15 to Day 15	31	0.0004	0.0147	0.0026	0.166	0.0136
Day -7 to Day -1	7	-0.0060	0.0084	0.0032	-1.911***	-0.0423
Day 1 to Day 7	7	-0.0006	0.0169	0.0064	-0.087	-0.0039
Day -7 to Day 7	15	-0.0014	0.0147	0.0038	-0.360	-0.0205
Day -5 to Day 5	11	0.0001	0.0161	0.0049	0.026	0.0014
Day -2 to Day 2	5	0.0078	0.0166	0.0074	1.051	0.0391
Day -1 to Day 1	3	0.0177	0.0112	0.0065	2.737***	0.0531

Note: *** indicates significance at 10% level.

Figure 3: Behaviour of Average Abnormal Returns (AARs) of sample firms and control firms along with control firm-adjusted AARs [AAR(C]s surrounding ex-split date



References*:*

Asquith, P., Healy, P., & Palepu, K. (1989). Earnings and stock splits. *The Accounting Review*, 64, 387-403.

Baker, H.K., & Gallagher, P.L. (1980). Management's view of stock splits. *Financial Management.* 9, 73-77.

Bar-Yosef, S., & Brown, L.D. (1977). A reexamination of stock splits using moving betas.*The Journal of Finance,* 32(4), 1069-80.

Brennan, M.J., & Copeland, T.E. (1988). Stock splits, stock prices and transaction costs. *Journal of Financial Economcs,* 22(1), 83-101.

Brown, S., & Warner, J. (1985). Using daily stock returns, the case of event studies. *Journal of Financial Economics, 1*4, 3-31.

Chandra, P. (2004), *Financial Management: Theory and Practice (6th Ed.).* New Delhi, India: Tata McGraw-Hill.

Conroy, R.M., & Harris, R.S. (1999). Stock splits and information: The role of share Price. *Financial Management*, 28(3), 28-40.

Copeland, T.E. (1979). Liquidity changes following stock splits. *Journal of Finance,* 34(1), 115-141.

Dolley, J. (1933). Characteristics and procedure of common stock split-ups. *Harvard Business Review,* 11, 316-26.

Dubofsky, D.A. (1991). Volatility increases subsequent to NYSE and AMEX stock splits. *The Journal of Finance,* 46(1), 421-31.

Elgers, P.T., & Murray, D. (1985). Financial characteristics related to management's stock split and stock dividend decisions. *Journal of Business Finance and Accounting,* 12(4).

Fama, E.F., Fisher, L., Jensen, M.C., & Roll, R. (1969). The adjustments of stock prices to new information. *International Economic Review,* 10(1), 1-21.

Fischer, D.F., & Jordan, R.J. (1995). *Security Analysis and Portfolio Management* (6th Ed.), New Delhi, India: Prentice-Hall of India.

Grinblatt, M.S., Masulis, R.W., & Titman, S. (1984). The valuation effects of stock splits and stock dividends. *Journal of Financial Economics*, 13(4), 461-90.

Gujarati, D.N. (2004). *Basic Econometrics (4th Ed.). New Delhi, India:* Tata McGraw-Hill.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2007). *Multivariate Data Analysis (6th Ed.).* New Delhi, India: Pearson Education.

Ikenberry, D.L., Rankine, G., & Stice, E.K. (1996). What do stock splits really signal?. *Journal of Financial and Quantitative Analysis,* 31(3), 357-75.

James A. M. (1977). Split or dividend: Do the words really matter?. *The Accounting Review*, 32(1), 52-55.

Kryzanowski, L., & Zhang, H. (1996). Trading patterns of small and large traders around stock ex-split dates. *Journal of Financial Research,* 19, 75-90.

Lakonishok, J., & Lev, B. (1987). Stock splits and stock dividends: Why, who and when. *The Journal of Finance*, 42(4), 913-32.

Lamoureux, C.G., & Poon, P. (1987). The market reaction to stock splits. *The Journal of Finance,* 42(5), 1347-70.

McNichols, M., & Dravid, A. (1990). Stock dividends, stock splits and signaling. *Journal of Finance*, 45(3), 851-79.

Mishra, A. (2007). The market reactions to stock splits: Evidence from India. *The ICFAI Journal of Applied Finance*, 11(7), 21-39.

Mukherji, S., Kim, Y., & Walker, M. (1997). The effect of stock splits on ownership structure of firms. *Journal of Corporate Finance,* 3, 167-88.

Ohlson, J.A., & Penman, S.H. (1985). Volatility increases subsequent to stock splits: An empirical aberration. *Journal of Financial Economics*, 14, 251-66.

Pilotte, E., & Manuel, T. (1996). The market's response to recurring events: The case of stock splits. *Journal of Financial Economics,* 41(1), 111-27.

PJ, J. L., & Rao, S.N. (2002). Market reaction to stock split: An empirical study. *Journal of Applied Finance,* 8(2), 26-40.

Schuitz, P. (2000), "Stock splits, tick size and sponsorship", *Journal of Finance*, Vol.55, pp.429-50.

Website visited:

www.sebi.gov.in [Securities and Exchange Board of India]

www.bseindia.com [Bombay Stock Exchange]

Websites of sample and control companies.

Impact of Rural Entrepreneurship Programmes on Socially Disadvantaged Groups: An Empirical Study of Entrepreneurship Development Institutes of North India

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1. INTRODUCTION & REVIEW OF LITERATURE:

India is one of the youngest nations in the world with more than 62% of its population in the working age group (15-59 years), and more than 54% of its total population below 25 years of age. Its population pyramid is expected to "bulge" across the 15– 59 age group over the next decade. It is further estimated that the average age of the population in India by 2020 will be 29 years as against 40 years in USA, 46 years in Europe and 47 years in Japan.

During the next 20 years the labour force in the industrialized world is expected to decline by 4%, while in India it will increase by 32%. This poses a formidable challenge and a huge opportunity to reap this demographic dividend which is expected to last for next 25 years. Apart from meeting its own demand, India has the potential to provide skilled workforce to fill the expected shortfall in the ageing developed world. But India presently faces a dual challenge of paucity of highly trained workforce, as well as non-employability of large sections of the conventionally educated youth, who possess little or no job skills. To achieve a high rate of GDP growth, India needs to equip its workforce with employable skills and knowledge so that they can contribute substantively to the inclusive economic and social growth of the country.

The objective of achieving sustained industrial development, regional growth and employment generation have always hinges on entrepreneurship development. In India a large number of technical, financial institutions, public sector undertaking, and institutions of higher learning have emerged since Independence as a result of systematic and conscious intervention of the planners. Many of these are comparable to the best institutions in the world. These institutions are churning out large number of trained manpower, thus fulfilling the need of the industry, R&D institutions and other sectors of the economy.

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Economic reforms and the process of liberalization since 1991, while creating tremendous opportunities, have created new challenges relating to competitive strengths, technology up gradation, quality improvement and productivity. In order to make optimal use of facilities, expertise and know-how available in these institutions for the benefit of the society, it is necessary that the appropriate

links are established between them and the industry. In addition, young technocrats are also looking out for opportunities to exploit their full potential by setting up their own ventures thus becoming job generators rather than job seekers. This necessitates systematic intervention and new instruments, which could facilitate the development and growth of new ventures by technologies. In this context, some of the mechanisms which have become popular the world over include Science Parks, Technology Parks, Technology Business Incubators, Techno polis, School of Small Business Development, Innovation Centers etc.

The galloping forces of privatization and globalization, coupled with the convergence of information and communication technologies, have largely influenced not only business organizations, but also 'not-for-profit' organizations like Central/State institutions and PSU's etc. The various aspects of Indian economy and, in particular, rural entrepreneurship have also been transformed by these forces. In the American context, Ruch (2001) has beautifully demonstrated how 'for-profit' development institutions have married the traditional model of service strategies with modern principles of operations administration, cost administration, financial administration.

In the present scenario, the thin line separating commercialization and social responsibility aspects related to different walks of business is gradually getting blurred. Entrepreneurs and service providers sharing the pleasure of cooperation for the sake of success is fast becoming an anachronism. (Kadam and Godha, 2003). Applicants or potential entrepreneurs are looking for 'value for money' from supporting institutions. It has long been argued that the marketing concept is relevant not only to profit-oriented firms but also to 'not-for-profit' organisations (Kotler, 1972).

The central idea of marketing is the congruence between customer needs and wants and the institution's offer. This is required in order to achieve the dual goals of 'customer satisfaction' and fulfilling the 'institution's objectives'. Thus, the 'marketing concept' is in line with the goals and objectives of rural entrepreneurship in its true spirit. In the context of rural entrepreneurship institutions, Kotler and Fox (1985) define marketing as being "….designed to bring about voluntarily exchanges of values with target markets to achieve institutional objectives".

Some academicians have emphatically argued for radical restructuring of institutions and have stressed the need to realize that services provided by the rural entrepreneurship institutions as business and the beneficiaries are its customers (Tsichritzis, 1999). "Rural entrepreneurship institutions (REI)" (hereinafter referred to as development institutions) need to pay increasing attention to the understanding and implementation of market-oriented principles and practices for development and enhancement of rural entrepreneurship abilities in Socially Disadvantaged Groups. Nevertheless, this aspect seems to have received scant attention from theorists as well as practitioners.

The Northern part of India is the home to a number of nationally and internationally renowned development institutions. It also houses a number of development institutions operated/governed by state/central government of India. Which represent a mix of top-of-the line and the not-so-good ones. Many fear that some of these development institutions are even dubious in nature. There has been a surfeit of new development institutions. While, many development institutions are facing inadequate impact on the unemployment others have witnessed a bee line for enrolments. There is a visible loss of credibility of the existing system of imparting and promoting rural entrepreneurship in Socially backward areas in some of these development institutions.

The present study seeks to probe into the varied aspects of the relationship between a development institution and Prospective entrepreneurs Socially Disadvantaged Groups. It also examines the expectations of these *Socially Disadvantaged Groups* as prospective entrepreneurs as primary clients of development institutions.

2. RESEARCH METHODOLOGY AND OBJECTIVES :

The present study had followed a macro approach and broad objectives of the present study were as under:

Objectives :

A. To measure the perception of stakeholders of REI towards the notion of "Socially Disadvantaged Groups as potential rural entrepreneurs";

B. To analyze the impact of Rural Entrepreneurship Programmes on entrepreneurial abilities of Socially Disadvantaged Groups

Research Methodology:

The present study was exploratory and descriptive in nature. The data has been collected through primary and secondary sources. The primary data was collected through a structured questionnaire using survey and interview method. five government entrepreneurship development institutes of India and potential entrepreneurs belonging to socially backward groups registered for training were also considered as sample unit. The selection of the respondents were made on the basis of non-probability sampling technique, viz, '**QUOTA'** sampling. The quota of the samples was fixed up on the basis of entrepreneurial activities undertaken, and number of institutions in particular category.

FREQUENCY DISTRIBUTION TABLES OF QUESTIONNAIRE-I (EMPLOYEES)

Survey Response Rate (Exhibit No. 9.0)

Total Sample Size	Response Received	Usable Response Received	Response Rate (%)
200	153	132	66

Entrepreneurship Development Institutes wise Response Rate (Exhibit No. 10.0)

Name of Entrepreneurship Development Institute (EDI)	Frequency	Percent	Cumulative Percent
National Institute for Entrepreneurship and Small Business Development, Noida	**57**	**43.2**	**43.2**
MSME Development Institute, Okhla	**20**	**15.2**	**58.3**
MSME Development Institute, Jaipur	**16**	**12.1**	**70.5**
MSME Development Institute, Ludhiana	**19**	**14.39**	**84.85**
MSME Development Institute, Karnal	**20**	**15.15**	**100.0**
Total	**132**	**100.0**	

Out of 153 responses received, 132 (86.27%) were usable responses and of which 89 (67.4%) were males and 43 (32.6%) were females; 57 (43.2%) employees belongs to National Institute for Entrepreneurship and Small Business Development, Noida, 20 (15.2%) were employees of MSMEDI, Okhla, 20 (15.2%) were employees of MSMEDI-Karnal, 19 (14.1%) were employees of MSMEDI-Ludhiana and 16 (12.1%) were employees of MSMEDI-Jaipur; 112 (84.8%) employees of the selected government entrepreneurship development institutes of India accepted that Entrepreneurship Training Programme Content Development Decision was a group decision and remaining 20 (15.2%) employees denied that Entrepreneurship Training Programme Content Development Decision was a group decision; similarly, 112 (84.8%) employees accepted that Entrepreneurship Training Programme Initiation Decision was taken by top level management of company and remaining 20 (15.2%) employees believed that Entrepreneurship Training Programme Initiation Decision was taken by middle level management of company; interestingly no even a single employee of any sample unit believed that Entrepreneurship Training Programme Initiation Decision was taken by lower level management of company; 83 (62.1%) of surveyed employees confirmed the Involvement of Participants in Entrepreneurship Training Programme and remaining 50 (37.9%) of surveyed employees denied any Involvement of Participants in Entrepreneurship Training Programme in the selected government entrepreneurship development institutes of India.

FREQUENCY DISTRIBUTION TABLES OF QUESTIONNAIRE -II (POTENTIAL ENTREPRENEURS) Survey Response Rate

The Sample	Response Received	Usable Responses	Response Percentage
00	479	424	84.8

Name of EDI	Frequency	Percent	Cumulative Percent
Noida (NIESBD)	**252**	**59.4**	**59.4**
MSMEDI-Okhla	**48**	**11.3**	**70.8**
MSMEDI-Jaipur	**41**	**9.7**	**80.4**
MSMEDI-Ludhiana	**40**	**9.4**	**89.9**
MSMEDI-Karnal	**43**	**10.1**	**100.0**
Total	**424**	**100.0**	

Out of 479 responses received, 424 (88.56%) were usable responses and of which 323 (76.2%) were males and 101 (23.8%) were females; 252 (59.4%) were potential entrepreneurs of NIESBD, 48 (11.3%) were potential entrepreneurs of MSMEDI-OKHLA, 41 (9.7%) were potential entrepreneurs of MSMEDI-Jaipur, 43 (10.1%) were potential entrepreneurs of MSMEDI-Karnal, and 40 (9.4%) were potential entrepreneurs of MSMEDI-Ludhiana; 197 (46.5%) surveyed potential entrepreneurs belong to 25-45yrs, 123 (29.0%) belong to >45yrs, and 104 (24.5%) belong to <25yrs age group; 172 (40.6%) surveyed potential entrepreneurs belong to 10000 – 30000 household income, 128 (30.2%) belong to 30001 – 50000 household income, 78 (18.4%) belong to <10000 household income, and 46 (10.8%) belong to >50001 household income group; 206

(48.6%) of surveyed potential entrepreneurs were residents of urban area, 132 (31.1%) were residents of metro city and 86 (20.3%) were residents of rural area; 236 (55.7%) surveyed potential entrepreneurs were under graduates, and 188 (44.3%) were post graduates.

Data Analysis Approach:

In the present study, responses from respondents were coded and tabulated in SPSS. For analyzing the data, both simple and advanced statistical tools were used. The test was conducted at 95 per cent confidence level (or 5 per cent level of significance). A five point Likert scale was used to measure the intensity of the attitude of respondents of the selected educational institutions, towards the various dimensions of research and startup activities. The respondents were asked to rate the variables, using five point Likert scale, which ranged from strongly disagree (1) to strongly agree (5).

3. ANALYSIS AND DISCUSSIONS :

To Measure the Perception of Stakeholders of Rural Entrepreneurship Institutions Towards the Notion of "Socially Disadvantaged Groups as Potential Rural Entrepreneurs"

The employees and administrators of selected government EDI were grouped together on the basis of their respective entrepreneurship institutes, for analyzing their perception regarding considering "socially disadvantaged groups as potential rural entrepreneurs". Out of 132 responses received, 105 (79.54%) respondents (employees and administrators) consider social disadvantaged groups as potential rural entrepreneurs and remaining 27 (20.46%) respondents (employees and administrators) do not consider social disadvantaged groups as potential rural entrepreneurs.

Cross Tabulation Count: Considering

"Socially Disadvantaged Groups as Potential Rural Entrepreneurs"

Employees & Administrators of the selected government EDIs	Socially Disadvantaged Groups are Potential Rural Entrepreneurs		Total
	Yes	No	
NIESBD-Noida	46	11	57
MSMEDI-Okhla	16	04	20
MSMEDI-Jaipur	15	01	16
MSMEDI-Ludhiana	17	02	19
MSMEDI-Karnal	11	09	20
Total	105	27	132

The result value of Levene test (.0488) depicted that Homogeneity of Variances exist and accordingly One Way Anova was applied to test the null hypothesis i.e. Ho = Rural entrepreneurship institutions do not perceive potential entrepreneurs as customers, which results in inadequate attention paid to the later needs.

Test of Homogeneity of Variances Considering Socially Disadvantaged Groups as Potential Rural Entrepreneurs

ANOVA

Considering Socially Disadvantaged Groups as Potential Rural Entrepreneurs

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	44947.000	4	14982.333	3.802	.013
Within Groups	378299.040	127	3940.615		
Total	423246.040	131			

The employees and administrators response regarding considering Socially Disadvantaged Groups as Potential Rural Entrepreneurs, were taken as dependent variable and selected government EDI were taken as independent variable. The significance value (.013) of One Way Anova in Exhibit No. clearly indicated that there was significant relationship exist between EDI and perception of Socially Disadvantaged Groups as Potential Rural Entrepreneurs by employees and administrators. Hence, the null hypothesis is rejected and it is confirmed that employees and administrators of the selected government entrepreneurship development institutes provides entrepreneurial services to socially disadvantaged groups similar to other participants.

To analyze the impact of rural entrepreneurship programmes (REP) on entrepreneurial abilities of socially disadvantaged groups

To verify and analyze the impact of **(REP)**on entrepreneurial abilities of socially disadvantaged groups (potential entrepreneurs), Mean variance, one way Analysis of Variance (ANOVA), Post hoc analysis and paired sample t-Test were applied. Potential entrepreneurs' response regarding technical skills and managerial abilities were compared, both before attending REP and after attending REPs organized by the selected government EDI of India in the present study. Mean value of statements related to technical skills (two statements) and managerial abilities (three statements) were taken as dependent variable and selected government EDI of India were taken as independent variable. A significance value of less than 0.05 indicated that significant relationship existed between the variables under study. For further analysis, Post hoc analysis was used. Wherever Post hoc analysis could not be applied the analysis was done on the basis of mean scores.

I. Technical skills before attending REP

Descriptive Mean : Technical skills before attending REP

Levene Statistic	df1	df2	Sig.
.817	4	127	.488

Name of Entrepreneurship services providers	Mean	Std. Dev	Std. Error	Min.	Max.
NIESBD-Noida(n=252)	3.08	.708	.045	2	6
MSMEDI-Okhla (n=48)	4.31	.501	.072	4	5
MSMEDI-Jaipur (n=41)	4.21	.602	.094	4	5
MSMEDI-Ludhiana (n=40)	3.60	.496	.078	3	4
MSMEDI-Karnal (n=43)	3.63	.489	.075	3	4
Total	3.44	.794	.039	2	6

The table described the potential entrepreneurs current state of technical skills before attending REP. In the case of technical skills, the overall mean value of potential entrepreneurs of selected government EDI of India was 3.44. The mean value of potential entrepreneurs of NIESBD-Noida was 3.08, MSMEDI-Okhla was 4.31, MSMEDI-Jaipur was 4.21, MSMEDI-Ludhiana was 3.60, and MSMEDI-Karnal was 3.63. This implies that the current state of technical skills of potential entrepreneurs was at low level. For further analysis one way ANOVA was used.

ANOVA : Technical skills Before attending REP

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	95.270	4	23.817	58.123	.000
Within Groups	171.697	419	.410		
Total	266.966	423			

Significance value of 0.000 indicated that there was a significant relation between technical skills and REP organized by selected entrepreneurship services institutes. Post hoc analysis and mean technical skills score v/s REP organized by selected government EDI of India clearly revealed that potential entrepreneurs of MSMEDI-Okhla were having high mean score hence were having better technical skills as compared to others.

Multiple Comparisons

Dependent Variable: Technical skills before attending REP

(I) name of entrepreneurship services providers	(J) name of entrepreneurship services providers	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
NIESBD-Noida	MSMEDI-Okhla	-1.23	.101	.000	-1.43	-1.03
	MSMEDI-Jaipur	-1.12	.108	.000	-1.34	-.91
	MSMEDI-Ludhiana	-.52	.109	.000	-.73	-.30
	MSMEDI-Karnal	-.54	.106	.000	-.75	-.34
MSMEDI-Okhla	NIESBD-NOIDA	1.23	.101	.000	1.03	1.43
	MSMEDI-Jaipur	.11	.136	.440	-.16	.37
	MSMEDI-Ludhiana	.71	.137	.000	.44	.98
	MSMEDI-Karnal	.68	.134	.000	.42	.95
MSMEDI-Jaipur	NIESBD-NOIDA	1.12	.108	.000	.91	1.34
	MSMEDI-Okhla	-.11	.136	.440	-.37	.16
	MSMEDI-Ludhiana	.61	.142	.000	.33	.89
	MSMEDI-Karnal	.58	.140	.000	.30	.85
MSMEDI-Ludhiana	NIESBD-NOIDA	.52	.109	.000	.30	.73
	MSMEDI-Okhla	-.71	.137	.000	-.98	-.44
	MSMEDI-Jaipur	-.61	.142	.000	-.89	-.33
	MSMEDI-Karnal	-.03	.141	.843	-.30	.25
MSMEDI-Karnal	NIESBD-NOIDA	.54	.106	.000	.34	.75
	MSMEDI-Okhla	-.68	.134	.000	-.95	-.42
	MSMEDI-Jaipur	-.58	.140	.000	-.85	-.30
	MSMEDI-Ludhiana	.03	.141	.843	-.25	.30

*The mean difference is significant at the .05 level.

II. Managerial abilities Before attending REP

Descriptive Mean : Managerial abilities Before attending REP

Name of Entrepreneurship services providers	Mean	Std. Dev	Std. Error	Min.	Max.
NIESBD-Noida(n=252)	3.13	.447	.028	2	5
MSMEDI-Okhla (n=48)	3.90	.337	.049	3	4
MSMEDI-Jaipur (n=41)	4.01	.217	.034	4	4
MSMEDI-Ludhiana (n=40)	3.93	.135	.021	4	4
MSMEDI-Karnal (n=43)	3.50	.414	.063	3	4
Total (n=424)	3.41	.539	.026	2	5

In the case of current state of managerial abilities, the overall mean value of potential entrepreneurs of selected government entrepreneurship development institutes of India was 3.41. The mean value of potential entrepreneurs of NIESBD-Noida was 3.13, MSMEDI-Okhla was 3.90, MSMEDI-Jaipur was 4.01, MSMEDI-Ludhiana was 3.93, and MSMEDI-Karnal was 3.50. One way ANOVA was used for further analysis.

ANOVA : Managerial abilities Before attending REP

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	57.835	4	14.459	92.812	.000
Within Groups	65.274	419	.156		
Total	123.109	423			

There was a significant relation between managerial abilities and rural entrepreneurship programmes organized selected government EDI of India as indicated by significance value i.e. 0.000. Further, the Post hoc analysis and mean managerial abilities score v/s REP organized by selected government EDI of India clearly revealed that managerial abilities of potential entrepreneurs of MSMEDI-Jaipur were having high mean score hence were capable as compare to others.

Multiple Comparisons

Dependent Variable: Managerial abilities Before attending REP

(I) name of entrepreneurship services providers	(J) name of entrepreneurship services providers	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
NIESBD-NOIDA	MSMEDI-Okhla	-.78	.062	.000	-.90	-.65
	MSMEDI-Jaipur	-.88	.066	.000	-1.01	-.75
	MSMEDI-Ludhiana	-.81	.067	.000	-.94	-.67
	MSMEDI-Karnal	-.38	.065	.000	-.50	-.25
MSMEDI-Okhla	NIESBD-NOIDA	.78	.062	.000	.65	.90
	MSMEDI-Jaipur	-.11	.084	.210	-.27	.06
	MSMEDI-Ludhiana	-.03	.084	.718	-.20	.14
	MSMEDI-Karnal	.40	.083	.000	.24	.56
MSMEDI-Jaipur	NIESBD-NOIDA	.88	.066	.000	.75	1.01
	MSMEDI-Okhla	.11	.084	.210	-.06	.27
	MSMEDI-Ludhiana	.07	.088	.394	-.10	.25
	MSMEDI-Karnal	.50	.086	.000	.33	.67
MSMEDI-Ludhiana	NIESBD-NOIDA	.81	.067	.000	.67	.94
	MSMEDI-Okhla	.03	.084	.718	-.14	.20
	MSMEDI-Jaipur	-.07	.088	.394	-.25	.10
	MSMEDI-Karnal	.43	.087	.000	.26	.60
MSMEDI-Karnal	NIESBD-NOIDA	.38	.065	.000	.25	.50
	MSMEDI-Okhla	-.40	.083	.000	-.56	-.24
	MSMEDI-Jaipur	-.50	.086	.000	-.67	-.33
	MSMEDI-Ludhiana	-.43	.087	.000	-.60	-.26

The mean difference is significant at the .05 level.

III. Technical skills Level After attending REP **Descriptive Mean : Technical skills After attending** REP

Name of Entrepreneurship services providers	Mean	Std. Dev.	Std. Error	Min.	Max.
NIESBD-Noida(n=252)	5.46	.456	.029	5	7

MSMEDI-Okhla (n=48)	5.13	.726	.105	4	6
MSMEDI-Jaipur (n=41)	5.32	.687	.107	5	6
MSMEDI-Ludhiana (n=40)	4.60	.744	.118	4	6
MSMEDI-Karnal (n=43)	4.59	.366	.056	4	5
Total (n=424)	5.24	.636	.031	4	7

In the case of technical skills, clearly revealed that after attending REP, the overall mean value of potential entrepreneurs of selected government EDI of India related to technical skills had increased from 3.44 to 5.24. The mean value of potential entrepreneurs of NIESBD-Noida had increased from 3.08 to 5.46, MSMEDI-Okhla from 4.31 to 5.13, MSMEDI-Jaipur from 4.21to 5.32, MSMEDI-Ludhiana from 3.60 to 4.60, and MSMEDI-Karnal had increased from 3.63 to 4.59. One way ANOVA was used to reveal further details of level of influence of rural entrepreneurship programmes on technical skills.

ANOVA : Managerial abilities after attending REP

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	47.937	4	11.984	40.813	.000
Within Groups	123.035	419	.294		
Total	170.971	423			

Significance value of 0.000 indicated significant relations between technical skills and REP organized by selected entrepreneurship services institutes. Post hoc analysis (Exhibit No. 40.1) and mean technical skills score v/s REP organized by selected government EDI of India clearly revealed that now potential entrepreneurs of NIESBD-Noida (by replacing MSMEDI-Okhla) had a high mean score and hence were now have better technical skills then others, after attending REP organized by selected government EDI of India.

Multiple Comparisons

Dependent Variable: Technical skills After attending REP

(I) name of entrepreneurship services providers	(J) name of entrepreneurship services providers	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
NIESBD-NOIDA	MSMEDI-Okhla	.34	.085	.000	.17	.51
	MSMEDI-Jaipur	.15	.091	.107	-.03	.33

	MSMEDI-Ludhiana	.86	.092	.000	.68	1.05
	MSMEDI-Karnal	.87	.089	.000	.70	1.05
MSMEDI-Okhla	NIESBD-NOIDA	-.34	.085	.000	-.51	-.17
	MSMEDI-Jaipur	-.19	.115	.096	-.42	.03
	MSMEDI-Ludhiana	.53	.116	.000	.30	.75
	MSMEDI-Karnal	.53	.114	.000	.31	.76
MSMEDI-Jaipur	NIESBD-NOIDA	-.15	.091	.107	-.33	.03
	MSMEDI-Okhla	.19	.115	.096	-.03	.42
	MSMEDI-Ludhiana	.72	.120	.000	.48	.95
	MSMEDI-Karnal	.72	.118	.000	.49	.96
MSMEDI-Ludhiana	NIESBD-NOIDA	-.86	.092	.000	-1.05	-.68
	MSMEDI-Okhla	-.53	.116	.000	-.75	-.30
	MSMEDI-Jaipur	-.72	.120	.000	-.95	-.48
	MSMEDI-Karnal	.01	.119	.953	-.23	.24
MSMEDI-Karnal	NIESBD-NOIDA	-.87	.089	.000	-1.05	-.70
	MSMEDI-Okhla	-.53	.114	.000	-.76	-.31
	MSMEDI-Jaipur	-.72	.118	.000	-.96	-.49
	MSMEDI-Ludhiana	-.01	.119	.953	-.24	.23

* The mean difference is significant at the .05 level.

IV. Managerial abilities After attending REP

Descriptive Mean : Managerial abilities After attending REP

Name of Entrepreneurship services providers	Mean	Std. Deviation	Std. Error	Minimum	Maximum
NIESBD-Noida(n=252)	4.98	.410	.026	4	7
MSMEDI-Okhla (n=48)	4.61	.865	.125	4	6
MSMEDI-Jaipur (n=41)	4.94	.333	.052	4	5
MSMEDI-Ludhiana (n=40)	5.00	.523	.083	4	5
MSMEDI-Karnal (n=43)	4.17	.359	.055	4	5
Total (N=424)	4.86	.546	.027	4	7

In the case of managerial abilities, clearly revealed that after attending REP, the overall mean value of potential entrepreneurs of selected EDI regarding managerial abilities had increased from 3.41 to 4.86. The mean value of potential entrepreneurs of NIESBD-Noida had increased from 3.13 to 4.98, MSMEDI-Okhla from 3.90 to 4.61, MSMEDI-Jaipur from 4.01 to 4.94, MSMEDI-Ludhiana from 3.93 to 5.00, and MSMEDI-Karnal had increased from 3.50 to 4.17. One way ANOVA was used to reveal further details of level of influence of REP on Managerial abilities of potential entrepreneurs.

ANOVA : Managerial abilities After attending REP

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	**28.359**	**4**	**7.090**	**30.359**	**.000**
Within Groups	**97.849**	**419**	**.234**		
Total	**126.209**	**423**			

The empirically data revealed the significant relation between managerial abilities and REP organized by selected EDI. Further, the Post hoc analysis and mean managerial abilities score v/s REP organized by selected government EDI of India clearly revealed that potential entrepreneurs of MSMEDI-Ludhiana (by replacing MSMEDI-Jaipur) had a high mean score and hence have improved managerial abilities after attending REP organized by selected EDI.

Multiple Comparisons

Dependent Variable: Managerial abilities After attending REP

services providers	(J) name of entrepreneurship services providers	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
NIESBD-NOIDA	MSMEDI-Okhla	.37	.076	.000	.22	.52
	MSMEDI-Jaipur	.04	.081	.614	-.12	.20
	MSMEDI-Ludhiana	-.02	.082	.847	-.18	.15
	MSMEDI-Karnal	.81	.080	.000	.66	.97
MSMEDI-Okhla	NIESBD-NOIDA	-.37	.076	.000	-.52	-.22
	MSMEDI-Jaipur	-.33	.103	.001	-.53	-.13

	MSMEDI-Ludhiana	-.39	.103	.000	-.59	-.19
	MSMEDI-Karnal	.44	.101	.000	.24	.64
MSMEDI-Jaipur	NIESBD-NOIDA	-.04	.081	.614	-.20	.12
	MSMEDI-Okhla	.33	.103	.001	.13	.53
	MSMEDI-Ludhiana	-.06	.107	.596	-.27	.15
	MSMEDI-Karnal	.77	.105	.000	.57	.98
MSMEDI-Ludhiana	NIESBD-NOIDA	.02	.082	.847	-.15	.18
	MSMEDI-Okhla	.39	.103	.000	.19	.59
	MSMEDI-Jaipur	.06	.107	.596	-.15	.27
	MSMEDI-Karnal	.83	.106	.000	.62	1.04
MSMEDI-Karnal	NIESBD-NOIDA	-.81	.080	.000	-.97	-.66
	MSMEDI-Okhla	-.44	.101	.000	-.64	-.24
	MSMEDI-Jaipur	-.77	.105	.000	-.98	-.57
	MSMEDI-Ludhiana	-.83	.106	.000	-1.04	-.62

* The mean difference is significant at the .05 level.

It was clear from the above data interpretation and analysis that REP organized by selected EDI had significant influence on technical skills and managerial abilities meaning thereby there is positive significant impact of REP on entrepreneurial abilities of socially disadvantaged groups.

To support the above findings two-related-samples (paired sample) t-Test was also applied by the researcher on the overall results to confirm the findings of the above analysis i.e. there was a significant influence of impact of REP on entrepreneurial abilities of socially disadvantaged groups. The Paired-Samples t-Test procedure compared the means of two variables that represented the same group at different times (e.g. before and after an event) or related groups (e.g., husbands and wives). In the present study, potential entrepreneurs level of technical skills and managerial abilities were tested twice i.e. once before attending REP and the other after attending rural REP organized by selected EDI.

The significance value (.000) of both Paired Samples t-TEST (technical skills and managerial abilities) clearly indicated that there was a significant difference between the two variables. Also, the confidence interval for the mean difference did not contain zero, this also indicated that the difference was significant. So the above discussion strongly confirmed that there was a significant positive influence of REP on technical skills and managerial abilities of socially disadvantaged groups.

Paired Samples t-TEST Statistics (Technical skills)

Pair 1		Mean	N	Std. Deviation	Std. Error Mean
Technical skills	before attending REP	3.44	424	.794	.039
Technical skills	after attending REP	5.24	424	.636	.031

Paired Samples t-TEST (Technical skills)

	Paired Differences					t	df	Sig. (2-tailed)
Pair 1	Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
technical skills before attending REP technical skills after attending REP	-1.81	.907	.044	-1.89	-1.72	-41.005	423	.000

Paired Samples t-TEST Statistics (Overall Satisfaction)

Pair 1		Mean	N	Std. Deviation	Std. Error Mean
managerial abilities	before attending REP	3.41	424	.539	.026
managerial abilities	after attending REP	4.86	424	.546	.027

Paired Samples t-TEST (Overall Satisfaction)

	Paired Differences					t	df	Sig. (2-tailed)
Pair 1	Mean	Std. Dev	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
managerial abilities before Attending REP Managerial abilities after Experiencing – entrepreneurship services	-1.44	.776	.038	-1.52	-1.37	-38.272	423	.000

4. CONCLUSION:

The concept of entrepreneurship is gaining ground in India. The core attribute of services related to entrepreneurial development being its focus on rural and socially backward area is being increased. In view of the literature survey, the researcher believed firmly that for enhanced industrial/economic growth and to tackle unemployment, the services provided by government entrepreneurship development institutes played a significant role. In addition, it is also believed that the service providers' (employees) positive frame of mind and respect for socially backward potential entrepreneurs would enhance the growth prospectus of EDI.

The study revealed that the majority of service providers considered them as potential rural entrepreneurs and the study showed that there is positive significant impact of REP on technical skills and on managerial abilities of the potential entrepreneurs. The results of Paired Samples t-TEST (technical skills and managerial abilities) strongly confirmed that there was a significant positive influence of REP on technical skills and managerial abilities of socially disadvantaged groups. Deregulation, diversification and globalization have stimulated a dramatic rise in competition - and these unforgiving marketplace realities have forced Indian Government to switch from an employment centric approach to entrepreneurship centric approach. In today's economic environment, unemployment and the gap between have and have-nots has been increased. To achieve its objective i.e. "INCLUSIVE and SUSTAINABLE GROWTH", Government of India is now focusing more on promoting entrepreneurship development initiatives to build entrepreneurial culture in India.

Nonperforming Assets and its Impact on Financial Performance: A Study on Banking Sector in India

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Abstract

Non-Performing Assetis one of the key indicators of banking sector to measure the efficiency of performance of banks. A high level of NPAs leads to large number of credit defaults which affect the profitability and wealth of banking companies. This paper describes the consistency level in profit and NPA of public sector banks, private sector banks and foreign banks. The objectives of this study is to find out the trend of NPA and Profit of public, Private & Foreign sector banks and to measure the relationship between NPA and profitability of public, private and foreign sector banks. This study is based on secondary data those are collected from Reserve Bank of India website. This paper finds that in Private sector banks increase in NPA leads to decrease in profit and in foreign banks NPA has less significant effect on profitability.

Keywords:*Non performing asset, portfolio, wealth, Public Sector Bank, Private Sector Bank, Foreign Bank*

INTRODUCTION

The banking industry in India has been witnessing a series of revolutionary changes and noteworthy transformation since 1991 after introduction of LPG policy and new economic and financial sector reforms. The process of Liberalization aimed to free banks from too much of regulations. The focus was on self-regulation. Self-regulation requires prudential norms to be laid down. On the eve of economic reforms in 1991, it was recognized that the banks were burdened with huge amount of Non-Performing assets (NPAs), which were not revealed in the balance sheets. The banks had gone very weak. Balance sheets were hiding more than what they revealed. After the first nationalization of Banks in 1969, certain tendencies emerged in the banks that led to the emergence of NPAs.

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The concept of NPAs emerged as a contemporary issue when Reserve Bank of India (RBI) introduced the prudential norms on the recommendations of the Narsimham committee in the year 1992-93. The prudential norms as laid down by RBI states that "An asset is considered as Non Performing if interest or installment of principal due remains unpaid for more than 90 days". In simple words as long as the expected income is realized from the assets, it is treated as performing asset but when it fails to generate income or deliver value on due date, it is treated as non-performing asset". With a view to moving towards International best practices and to ensure greater transparency, the "90 Days overdue" norm for identification of NPAs had been adopted from the year ending 31st march, 2004.

REVIEW OF LITERATURE

Kiran and Jones (2016) made a study on effects of NPA on the profitability of banks.The objective of this study isto examine the relationship between NPA and profitability of banks. They have used secondary data and applied correlation & regression in their study. The study concludes that large banks are able to adjust the losses on account of NPAs but small banks are not able to afford it and public sector banks are facing more issues due to NPAs.

Singh (2016) conducted study on Non-performing assets of commercial banks and it's recovery in India. The paper highlights the status of Non-performing assets of Indian scheduled commercial banks in India. This study is secondary in nature and the time period 2000 to 2014 is used for the study. This paper finds that ineffective recovery, willful defaults and defective lending process are the important factors for the rise of NPAs in banks and NPAs are responsible for reducing the earning capacity of banks.

Rao& Patel (2015) studied Non-performing assets management of public sector banks, private sector banks and foreign banks in India. This paper considers the aggregate data of public sector, private sector and foreign banks and interprets the NPA management from the year 2009 to 2013. The study usesLeast square method for estimating gross NPAs and ANOVA test to find out the significant difference between gross NPA ratio to gross advances ratio. This study finds that gross NPA to gross advance is increasing for public banks, ratio of gross NPA to gross advances for public sector, private sector and foreign banks does not have significant difference between 2009 to 2013.

Narula&Singla (2014) evaluate the non – performing assets of "Punjab National Bank and its impact on profitability & to see the relation between total advances, Net Profits, Gross & Net NPA". The study uses the annual reports of Punjab National Bank for the period of six years from 2006-07 to 2011-12. These papers conclude that there is a positive relation between Net Profits and NPA of PNB. It is because of the mismanagement on the part of bank.

Arora and Ostwal (2014) conducted a research on "Unearthing the Epidemic of Non-Performing Assets: A Study of Public and Private Sector Banks" which deals with the concept of Non-performing assets and analyze the classification of loan assets of public and private sector banks. It also explores the comparison of loan assets of Public sector and private sector banks. The study concluded that private sectors are improving due to decline in NPAs ratio as compared to Public sector banks. There is need to check the NPAs of public sector banks so that Indian banking system can be made efficient.

Srinivas K T (2013) made an effort to identify the "Non-performing assets at Commercial banks in India." This paper highlights the various general reasons which convert advances/ assets into NPA and also give suitable suggestion on findings to overcome the mentioned problem.

Olekar and Talawar (2012) studied "NPA management with reference to Karnataka central co-operative bank ltd.", where they described conceptual data about NPA and on the other hand, they calculated few NPA related ratios and used trend projection method to predict next year advances for the bank. Their finding includes the considerable reduction of NPA for the bank and some suggestions for recovery of NPA.

Kaur and Saddy (2011) in the research paper entitled "A Comparative Study of Non-Performing Assets of Public and Private Sector Banks" an attempt is made to clarify the concept of NPA, the factors contributing to NPAs, the magnitude of NPAs, reasons for high NPAs and their impact on Indian banking operations. Besides capital to risk weight age assets ratio of Public and Private sector banks, management of credit risk and measures to control the threat of NPAs are also discussed.

Malyadri and Sirisha (2011) this study examine the NPA of Public Sector banks and Private sector banks of weaker sections for the period seven years in India. The secondary data compiled from Report on Trends and Progress of Banking in India, 2004-10 which has been analyzed by statistical tool such as percentages and compound Annual Growth rate. This study reveals that the public sector banks have achieved a greater penetration compared to the private sector banks.

SIGNIFICANCE OF THE STUDY

The definition of banking is the acceptance of deposits and lending of loan. Whereas they pay interest at different rates on the deposits they accept from the customers and they collect interest on the advances they lend to the customers. They keep a certain margin between the interest charged and interest paid. The margin should be in such a way that the banks can afford to pay all expenses in conducting the banking activities. The balance amount after payment of all expenses and charges will be the profit for the banks and the profit is shared between the shareholders. In case, the banks are not able to recover the amount lent to their borrowers, the level of profits comes down. All loan accounts are classified as performing assets or non-performing assets. In classifying the non-performing assets, the availability of security or net worth of the borrower/guarantor is not considered for such classification.

OBJECTIVES OF THE STUDY

The objectives of the study are:

- To study the trend of NPA and operational performance of public, private and foreign sector banks.
- To measure the relationship between NPA and profitability of public, private and foreign sector banks.

RESEARCH METHODOLOGY

Sources of data- This study is based on secondary data collected from the website of Reserve Bank of India and other authentic sources.

Sample Design- Banks are categorized into public sector banks, Private Sector banks and foreign sector banks. In our study we have considered all the banks to establish relationship between NPA and Profit.

Study period- This study has covered 5 years from 2011 to 2015.

Statistical tools- The Statistical Techniques used for analysis are simple regression & Coefficient of Correlation to analyze the relationship between dependent variables and independent variable. Descriptive statistics are also used for studying variations on sample banks profitability and NPA.

Variables-Independent and Dependent variables of the selected sample banks for the study are:

1. **Dependent variables**

Profit

2. **Independent variables**

NPA-Non Performing Asset.

Hypothesis

- H^1_0 = NPA does not influence profitability in Public sector banks.
- H^2_0= NPA does not affect profitability in Private sector banks.
- H^3_0= NPA does not effect profitability in Foreign sector banks.

DATA ANALYSIS

Table No 1

CV Analysis

	PUBLIC SECTOR BANKS		PRIVATE SECTOR BANKS		FOREIGN BANKS	
	PROFIT (%)	NPA (%)	PROFIT (%)	NPA (%)	PROFIT (%)	NPA (%)
Average	10.24	2.99	11.55	1.38	8.24	3.42
S.D	0.78693092	0.840272083	1.152405652	1.053301355	1.946781572	5.33
C.V	0.076848723	0.28127134	0.099775381	0.762880148	0.236152497	1.56

Source: Self Compiled

Public sector banks make consistent profit over a sample period from 2011-2015 which is evident from C.V of profits of public sector banks i.e. 0.0768. So far as NPA of public sector banks is concerned there is a variation of NPA to the extent of 0.28 as compared to private sector banks i.e. 0.76 and that of foreign banks 1.56, so it signifies that there is significant inconsistency in NPA among private and foreign banks. Private and foreign banks adopt their own approaches to deal with NPA problems where-as public banks follow specified guidelines in dealing with NPA. There is more or less consistency in level of making profit by private and public sector banks as compared to that of foreign banks where consistency level is less.

RELATIONSHIP BETWEEN NPA AND PROFIT

$\mathbf{Y_e = \beta_0 + \beta_1 NPA + \varepsilon}$

Where,

$\mathbf{Y_e}$ = PROFIT

$\boldsymbol{\beta_0}$ =Constant or the intercept value of Y

$\boldsymbol{\beta_1}$ = Slope of the independent variables

NPA = Non Performing Asset

$\boldsymbol{\varepsilon}$ = Error Term

Table No 2: Regression statistics Public Sector Banks

Source: Self Compiled

From the regression statistics as given above it is found that there is a positive relationship between Profit and NPA in public sector banks i.e. 0.009 which is very small. It means if profit increases then NPA also increases, it does not mean increase in NPA leads to increase in profit. There are other factor which contributes towards increase in the profit of public sector banks. Here P value is 0.636 which is above standard 0.05 i.e. P> 0.05. So, null hypothesis$H^1{}_0$ is accepted. It signifies that there is less significant relationship between NPA and profitability of public sector banks. The relationship is positive however the impact is very insignificant. NPA does not influence much the profitability of Public Sector Banks. But it should not be allowed to go unchecked.

Table No 3: ANOVA Table – Public Sector Banks

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	9.978460699	0.577840192	17.26855	2.09E-15
NPA	0.089146361	0.186453329	0.478116	0.636722

Source: Self Compiled

Profit = 9.97+0.08NPA+μe

Here $\boldsymbol{\beta_0}$ is the estimated constant of the regression and the value of $\boldsymbol{\beta_0}$ is 9.97. Here NPA shows positive contribution towards Profit.The NPA coefficient ($\boldsymbol{\beta_1}$) is 0.08, it means 1 unit change in NPA leads to 0.08 unit change in Profit.

Multiple R	0.095189
R Square	0.009061
Adjusted R Square	-0.03058
P Value	0.636722

Table No 4: Regression statistics Private Sector Banks

Multiple R	0.642434
R Square	0.412721
Adjusted R Square	0.381812
P Value	0.001687

Source: Self Compiled

The relationship between Profit and NPA in private sector banks is 0.41. It means change in one unit of NPA leads to 41% change in Profit. Here null hypothesis H^2_0 is rejected because the significance value is 0.001 i.e. P<0.05. It concludes there is a significant positive relationship between NPA and profit. If NPA is increasing and Profit also increasing it means profit is backed by other sources. Had NPA been less profit would have been more.

Table No 5: ANOVA Table – Private Sector Banks

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	12.52051	0.331099	37.81498	2.39E-19
NPA	-0.70288	0.192353	-3.65412	0.001687

Source: Self Compiled

Profit = 12.57-0.70NPA+µe

The constant intercept is 12.52. In the above table NPA contributes negatively towards profit. The NPA coefficient (**β_1**) is shown as -0.70. Thus, it means 1 unit increase in NPA leads to -0.70 decrease in profit. It means that when NPA will increase then profit will decrease.

Table No 6: Regression statistics Foreign Banks

Multiple R	0.183947
R Square	0.033837
Adjusted R Square	0.006232
P Value	0.275785

Source: Self Compiled

Looking up the regression table we can find that the relationship is positive between NPA and profit in foreign banks i.e.0.033. The number is very negligible. Here p value is 0.275 i.e. P>0.05. It impliesthat the null hypothesis H^3_0 is accepted that there is less significant relationship between profit and NPA. The impact of NPA on profit is very insignificant irrespective of positive relationship between them.

Table No 7: ANOVA Table – Foreign Sector Banks

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	7.793321	0.362002	21.52838	9E-22
NPA	0.063866	0.057686	1.107138	0.275785

Source: Self Compiled

Profit = 7.79+0.06NPA+µe

In the above table constant intercept is 7.79 and the NPA coefficient (**β_1**) is 0.06. It reveals 0.06 change in profit if NPA changes in 1 unit. In foreign sector banks NPA contributes positively towards profit.

FINDINGS

Mostly every country's economic growth is influenced by its financial system. The financial system mainly comprises banking sector.Indian banking system of late has been facing the NPAs problem which is the main concern for the bottom line of the banking sectors.

The study shows that in public sector banks NPA and Profit are positively related. It does not mean that NPA increases profit. In public sector banks profit continuously increases in spite of increase in NPA. This is due to other sources of earning revenue, if NPA is controlled the profit would rise more proportionately than before.

Our study also reveals that there is a negative relationship between NPA and profit in Private sector banks. NPA causes decrease in profit of private sector banks. The measure source earning income in private sector banks is mostly from interest of loans and advances unlike public sector banks. Therefore private sector banks are more cautious and vigilant in recovering the loans and advances from their customer which the public sector banks do not follow.

So far as foreign sector banks are concerned NPA and profitability are independent to each other though they have a positive relationship as indicated from our study.

SUGGESTIONS

The study suggests the following mechanisms to curb the volume of NPAs taking place in Indian Banking sector:

1. **Sufficient Manpower:**

Banks need adequate manpower for effective NPA management. There is a misconception that NPA management is nothing but recovery of banks dues.

However this is not correct. Effective NPA management involves analysis of non-performing assets, planning, deciding strategy for recovery, selecting accounts for immediate actionfollow up, interaction with the borrowers, dealing with compromise/write off proposals etc. It needs involvement and understanding of staffs'continuously, so that there will be a focused attention on recovery. In order to control the level of NPAs it is necessary for bank officials to:

- Identify the borrower properly.
- Scrutinize the proposal carefully.
- Give adequate & timely finance.
- Ensure utilization.
- Monitor and follow up closely.
- Rephrase or reschedule the account for reasons beyond the control of the borrower.

2. Awareness & Training Camps for Borrowers:

Borrower's awareness level regarding non-performing assets is very less. Banks are also not doing any type of interaction with the borrowers. So, the borrowers have no knowledge on non- performing assets which are in their interest. It is therefore suggested that the branches should arrange training cum awareness camps at different places in their area of operation once in a year and educate the borrowers on various issues. This will help both the borrowers and the banks in improving interaction with the borrowers and simultaneously improve the recovery atmosphere.

3. Helping Borrowers in Difficulties:

Some borrowers are not capable of paying bank dues due to their personal problems but that should be communicated to banks. If they will communicate then the dealing officer should prepare a list of overdue accounts and find the reason behind the same with the manager. After the discussion, only those accounts where there is no alternative available, that should be classified as NPAs.

4. Write Off of Loans:

Write off of Loans is one of the ways of reducing NPAs. However, it is necessary to ensure that before any account is written off, all the efforts for recovery of loan have failed and there is no possibility of recovery in the account in normal course of time.

5. Government Programmers:

There are some government sponsored programmers, such as SGSY, PMRY, SJSRY etc, which are implemented for the benefit of rural or urban poor, is not good at all because the recovery under these programmers was very poor. So government must ensure that the borrowers repay all the dues in due time.

6. **Willful Defaulter:**

Sometimes borrowers are declaring themselves as willful defaulters because they are experiencing that some borrowers are not paying and government let them go free. That induces other borrowers to follow the same path. This increases the volume of NPA. Therefore, government should take strong steps towards defaulters.

CONCLUSION

The Non-Performing Assets have always created a big problem for the banks in India. It is not only the problem for banks but also for the economy too. The money locked up in NPAs has a direct impact on profitability of the bank as Indian banks are highly dependent on income from interest on funds lent. This study shows that extent of NPA is comparatively very high in public sectors banks. Although various steps have been taken by government to reduce the NPAs but still a lot needs to be done to curb this problem. The NPAs level of our banks is still high as compared to the foreign banks. Though it is not at all possible to have zero NPAs, the bank management should speed up the recovery process. The problem of recovery is not with small borrowers but with large borrowers and a strict policy should be followed for dealing this problem. The government should also make more provisions for faster settlement of pending cases and also it should reduce the mandatory lending to priority sector as this is the major problem creating area. So the problem of NPA needs lots of serious efforts otherwise NPAs will be killing the profitability of banks which is not good for the growing Indian economy at all.

The financial institutions should develop new strategies to improve the recovery of loan. Non-performing assets (NPAs) affect the performance of financial institutions both financially as wee as psychologically. The non-performing assets have become a major cause of concern. Absorbing the credit management skills has become all the more important for improving the bottom-line of the banking sector. The current NPAs status continues to disturb Indian banking Sector. Several experiments have been tried to reduce NPAs but nothing has hit the mark in tackling NPAs. The Indian banking sector face a serious problem of NPAs. A high level of NPAs suggests high probability of a large number of credit defaults that affect the profitability and liquidity of banks. Most of the problem related to NPA is faced by public sector banks. To improve the efficiency and profitability, the NPAs have to be scheduled. Strict measures are needed to be taken up to combat these NPAs crises. It is highly impossible to have zero percentage NPAs.

REFERENCES

Kiran, K.P., & Jones, T.M. (2016). Effect of Non Performing Assets on the profitability of banks – A selective study. International Academy of Science, Engineering and Technology, 5(2), 53-60.

Chhatoi, B.P. (2012). Study on portfolio behavior of banks with regard to the management of Non Performing assets.

Singh,V.R. (2016). A study of Non – Performing Assets of commercial banks and it's recovery in India. Annual Research Journal of SCMS,4, 110-125.

Rao, M., & Patel, A. (2015). A study of Non Performing Assets management with reference to public sector banks, private sector banks and foreign banks on India. Journal of Management and Science, 5(1), 30 – 43.

Narula, S., &Singla, M. (2014). Empirical study on Non – Performing Assets of bank. International Journal of Advance Research in Computer Science and Management Studies, 2 (1), 194 – 199.

Arrora, N., &Ostwal, N. (2014). Unearthing the Epidemic of Non – Performing Assets: A study of Public and Private sector Banks. Management Insight, 10 (1), 47 – 52.

Srinivas, K.T. (2013). A study on Financial Assistance to Small and Medium Enterprises by KSFC. International Monthly Referred Journal of Research in Management & Technology, 2, 61 – 69.

Kaur, H., &Saddy, N.K. (2011). A cpmaprative study on Non – Performing assets of public and private sector banks. International Journal of Research in Commerce and Management, 2 (9), 82 – 89.

Olekar, R.O., &Talawar,C. (2012). Non Performing assets management in Karnatak central co-operative bank ltd, Dharwad. International Journal of Research in Commerce and Management, 3 (12), 126 – 130.

Malyadri, P., &Sirisha, S. (2011). A comparative study of Non-Performing Assets in Indian banking Industry. International Journal of Economic Practices and Theories, 1 (2), 77 – 87.

Websites

- **www.slideshare.com**
- **www.rbi.org.in**
- **www.wikipedia.com**
- **www.investopedia.com**
- **www.google.com**
- **www.scribd.com**
- **www.doaj.org**
- **www.shodhganga.inflibnet.ac.in**
- **www.shodhgangotri.inflibnet.ac.in**

Book Review
Management of Non-Performing Assets in SFCs

*Inchara P M Gowda

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Indian Banking and Financial Companies are in the news, in the recent years, for wrong reasons of their mounting non-performing assets (NPAs). The post-LPG era and the post-global financial crisis have witnessed both the Government of India (GoI) and the Reserve Bank of India (RBI) relaxing lending norms and encouraging the banking and financial companies to lend more as a part of counter-cyclical strategy. They also encouraged the lending institutions to restructure their corporate/project loans which were on the way of slipping to NPAs category by providing more time to repay and also by providing additional loan. Consequently, the NPAs of Indian Banking and Financial Companies are increasing and this is more so after the RBI directed these lender-organisations to take up the asset quality recognition exercise systematically and seriously. The Gross NPAs of Indian Banking and Financial Companies crossed Rs. 9 trillion. And India ranks 5th in the list of 39 major world economies (CARE Ratings). Therefore, both the GoI and the RBI are trying hard to resolve the perennially increasing NPAs as they are affecting many performance indicators of lender-organizations. However, the outcome is not satisfactory.

In this backdrop, the present treatise, Management of Non-performing Assets in SFCs, by Inchara P. M Gowda is not only timely but also comprehensive. She has examined the ill-effects of NPAs and the Provisioning made against these NPAs on different performance indicators such as interest income, net interest income, credit recycling, capital adequacy, return on assets, etc. For the purpose of highlighting the adverse implications of NPAs and Provisioning and for the purpose of objective and factual analysis, she has used the performance statistics for ten years (2007-08 to 2016-17) of a development financial institution viz., Karnataka State Financial Corporation.

After presenting the conceptual framework and the profile of the study unit in chapters – I and II respectively, she examined the overall performance from the points of view of both operating performance and financial performance. For the purpose of evaluating the operating performance (chapter – III), she has used four broad categories of parameters relating to the number of industrial units assisted, amount of loan sanctioned, amount of loan disbursed and amount of loan recovered. Again, she has made an attempt to examine the district-wise performance, performance of industrially backward and other districts, circle-wise analysis and also the

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constitution-wise analysis (such as public limited companies, private limited companies, co-operatives, HUFs, etc). Besides, volume of business per employee is also assessed and compared over 10-year study period.

For the purpose of examining financial performance (chapter – IV), 20 parameters under six categories viz., cost effectiveness, income analysis, cost-income relationship, impact study, profitability measures and overall profitability ratio are used. Interest and other financial expenses, employee benefit expenses, bad debts and provisioning, interest income, non-interest income, net interest spread, cost to income ratio, profit after tax, net profit per employee, efficiency ratio, etc., are some of the parameters used to for the purpose of examining the financial performance. Besides, she has used Return on Assets Ratio as prescribed by the RBI in its Revised Prompt Corrective Action Framework of April 2017. She examined the financial performance more specifically profitability by applying Risk Thresholds – 1, 2 and 3.

A comprehensive study of management of NPAs (chapter – V) is made by the author using different parameters such as maturity-wise analysis of loan sanctioned, credit exposure, outstanding loans and defaults, recovery performance, capital adequacy, asset quality, provisioning, etc. She examined the performance of the corporation in managing its NPAs by comparing its performance with Capital to Risk Weighted Assets Ratio (CRAR) considering both Tier – I and Tier – II capital.Besides, she has examined the gross NPAs, Provisioning, net NPAs, changing trends in standard assets and NPAs – sub-standard assets, doubtful assets and loss assets. Further, she quantified the extent to which the NPAs menace if affecting the reported profit, credit recycling, etc.

For the purpose of evaluating the performance from different perspective, the author has used relevant accounting ratios and statistical tools such as descriptive statistics (Mean, Standard Deviation, Co-efficient of Variation, Skewness), trend analysis, compound annual growth rate (CAGR), year-over-year (y-o-y) growth rate, correlation, regression analysis, etc. Interpretation of results of analysis is an added feature of the book.By using appropriate analytical tools, making systematic analysis, and by following appropriate methodology, the author has presented her work in a lucid manner. Experiences of banking and financial companies world-wide presented in chapter – I provides different dimensions of the problem of NPAs and how they are trying to resolve this menace. Though the author has offered only a few suggestions (chapter – VI), they are pragmaticand therefore, they are worth consideration by the Ministry of Finance, Reserve Bank of India, State Financial Corporations, Banking Companies, etc.

The book, on the whole, is useful not only for the banking and financial companies but also for the researchers, academicians and for college and university libraries.

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