News of Inflation and Effect on Stock Prices in India

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Abstract

The article investigates into the impact of the inflation rate on stock market in India during the period 1993 to 2013. The study explores into the long-run co-movement between the rate of inflation and stock prices in India and attempts to reveal whether inflation rate causes stock market movement in India. The study also reveals that both the Indian stock markets are strongly exogenous in the sense that shocks to inflation rate explain only a small portion of the forecast variance error of the market indices and notices that a positive shock on inflation rate has a negative and persistent effect on Indian stock markets.

Keywords: *Inflation Rate, Stock Market, Cointegration, Granger Causality Test.*

I. BACKGROUND OF THE STUDY

The stock market is one of the important financial sectors of the economy that affect almost all economic activities of a country through its various forms. The relationship between stock prices and inflation has been a topic of great interest both in theoretical and empirical literature. Despite the extensive research on the exact relationship between them, the issue still remains vexing. The linkage, if any, between inflation and real stock returns has received considerable attention over the last half century, starting with the pioneering work of Fisher (1930). This is due, at least in part, to the theoretical differences which exist between the Fisher hypothesis and the traditional view that equities ought to act as a hedge against inflation. The Fisher hypothesis asserts that nominal interest rates rise with rises in expected rate of inflation and the real stock returns are suggested as a good potential hedge against inflation. And since interest rates have a negative impact on stock prices, an increase in expected inflation should also negatively impact stock prices.

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Many studies have found a negative causal relation from interest rates to stock prices. The main logic for this causal relation is that as interest rates rise, the cost of corporate borrowing increases, profits decrease, and thus present values of profits; stock prices decline. The combination of the negative relation between interest rates and stock prices and the positive relation between inflation and interest rates has led some researchers to conclude that there should be a causal negative relation from inflation rates to stock prices.

Other studies on the other hand have argued that for corporations with little or no debt, or with debt at secured interest rates, input good costs may increase with inflation, but interest rate-associated cost increases would be negligible. The inflationary presence, however, would allow for marginal profit increases as product price is kept in line with inflation. Accordingly, as inflation rises, corporate cash flows and thus present values of these cash flows; stock prices, will increase. This situation would suggest a positive causal relationship may exist from expected inflation and stock prices.

The issue may be of crucial importance in advancing our understanding of stock markets, and in providing benchmarks for decision-making about asset allocation. The relationship between stock returns and inflation has been the subject of extensive research. In this backdrop, our present study attempts to investigate empirically the impact of inflation rate on Indian stock market. The rest of the study is organized into four sub sections. Section 2 discusses review of some related literature to find out research gaps; section 3 discusses the data and methodology used in the study i.e. the research design; while section 4 presents the findings of the study; and finally, section 5 summarizes the result and concludes the study.

II. AN OVERVIEW OF THE EXISTING LITERATURE

The linkage between stock market returns and inflation if any has drawn the attention of researchers and practitioners since the early twentieth century. From an empirical perspective, a substantial academic and professional literature, especially in the developed countries, explores the interaction between inflation rate and stock market performance. According to Fisher (1930), the nominal interest rate can be decomposed into two components, a real rate plus an expected inflation rate. He claims a one-to-one relationship between inflation and interest rates in a world of perfect foresight, with real interest rates being unrelated to the

expected rate of inflation and determined entirely by the real factors in an economy, such as the productivity of capital and investor time preference. According to him, inflation should not affect real stock returns. He suggests that stock market serves as a hedge against inflation. This implies that investors are fully compensated for increases in the general price level through corresponding increases in the nominal stock market returns and thus the real returns remain unaffected. According to him, the real returns are independent of inflationary expectations.

Using monthly data from January 1953 to July 1971 Fama and Schwert (1977) have tried to estimate the extent to which various assets are hedged against the expected and unexpected components of the inflation rate. Using regression analysis they find that the common stock returns of US stocks are negatively related to the expected and unexpected component of the inflation rate. But according to Fama (1981), the relationship observed between real stock returns and inflation in the United States is a consequence of a spurious relationship. The negative stock returns-inflation relations are induced by the positive correlation between stock returns and real activity and the negative correlation between inflation and real activity. It implies that high rate of inflation may decrease the demand for money that decreases growth in real activity. On the other side, the increase in rate of inflation reduces the future expected profits, which ultimately impact the decrease in stock prices. In conformity with the study made by Fama (1981), Adrangi, Chatrath and Shank (1999) investigate the relationship for the developing markets of Peru and Chile. They basically test whether the negative relationship between equity returns and inflation is a result of a 'proxy effect', namely, a negative relationship between inflation and real economic activity. The long-run equilibrium had been tested by using Johansen and Juselius cointegration tests. However, in both the economies, stock prices and general price levels show a strong long-run equilibrium relationship with the real economic activity, which indicates that the negative relationship between equity returns and inflation is a result of a proxy effect not the actual one.

The study made by Solnik (1983) provides empirical evidence on the relation between stock returns and inflationary expectations for nine countries over the period from 1971 to 1980. In his study the Fisherian assumption that real returns are independent of inflationary expectations is soundly rejected for each major stock market of the world. Using interest rates as a proxy for expected inflation, his study provides a consistent support for the hypothesis that stock price movements signal

(negative) revisions in inflationary expectations. Similarly, Mukherjee and Naka (1995) have found that the Japanese stock market (Index of Tokyo Stock Exchange) is cointegrated with a group of six macroeconomic variables namely exchange rate, money supply, inflation, industrial production, long-term government bond rate and call money rate for the period from January 1971 to December 1990. They also find that the inflation and long term government bond are negatively associated with Japanese stock index. Adams, McQueen and Wood (2004) have explored the relationship of unanticipated inflation news and stock return by looking at the response (in minutes and trades) of stock prices to unexpected changes in the Producer Price Index (PPI) and Consumer Price Index (CPI) announcements. By using intra-day returns they find that the unexpected increases in both the PPI and the CPI cause stock prices to fall. They further conclude that the stocks prices tend to respond to inflation news in about 10-20 minutes. According to them, this non-instantaneous response is primarily due to non-trading in the first few minutes of the day. At the same time, Al-Khazali (2004) investigates the generalized Fisher hypothesis for nine equity markets in the Asian countries viz. Australia, Hong Kong, Japan, Korea, Taiwan, Thailand, Malaysia and the Philippines during the period from January 1980 through December 1994. The regression results of his study indicate that stock returns in general are negatively correlated to both expected and unexpected inflation, and that common stocks provide a poor hedge against inflation. However, the results of the VAR model of his study indicate the lack of a unidirectional causality between stock returns and inflation. It also failed to find a consistent negative response neither of inflation to shocks in stock returns nor of stock returns to shocks in inflation in all countries. He finally concludes that the generalized Fisher hypothesis in the Asian markets is as puzzling as in the developed markets. In the line of the previous studies Omran and Pointon (2001), Coleman and Tettey (2008) and Rafique et al. (2013) observe that the stock prices are negatively related to the inflation rate in the context of Egypt, Ghana and Pakistan respectively. Beside the above studies Bhattacharya and Mukherjee (2002), Sahu and Gupta (2011), Naik and Padhi (2012), Saluja et al. (2012) and Naik (2013) also conclude the same thing that the inflation rate negatively affects the stock market returns in India.

Another group of researchers like Ratanapakorn and Sharma (2007) and Sohail and Hussain (2012) find the existence of positive relationship between inflation rate and stock prices in US and Pakistan respectively. They argue that the market rate of interest includes

anticipated inflation and along with rise in the rate of inflation which leads to increase the nominal rate of interest. Consequently, real rate of interest remain same in the long run. Thus, they conclude that there is a positive one to one linkage between rate of inflation and stock prices, and share prices provide hedge against inflation rate.

But Chen, Kim and Kim (2005), Nair (2008) and Menaje (2012) did not support the hypothesis that inflation rate affect the stock return. Analyzing monthly data of inflation rate and stock market indices they do not find any significant impact of inflation on stock return in Taiwan, India and Philippine respectively.

From the review of earlier literature it is observed that a large number of studies have been made to determine the relationship between change in inflation rate and stock price movement. Undoubtedly, the above mentioned research studies have a great contribution in this field but most of these studies typically focus on developed economies and the effects of inflation rate on the stock prices of developing Asian countries like India is less obvious. Moreover, the findings of these studies are mixed and inconsistent. These findings are sensitive to the choice of countries, methodology employed and the time period studied. It is difficult to generalize the results because each market is unique in terms of its own rules, regulations, and type of investors. Moreover, the results of those researches relating to the developed countries are debatable in the context of an emerging economy like India due to differences in socioeconomic conditions and prevailing regulatory environment of the country. In these circumstances, the study of the impact of inflation rate on security prices in Indian during the long and the short runs becomes a logical prolongation of the existent academic analysis. The present study under the title "Does the Inflation Rate Affect the Performance of the Stock Market? Evidence from India" is an endeavor to overcome these limitations through the empirical analysis to come to a valid conclusion.

III. DATA AND METHODOLOGY

Data

The empirical investigation is carried out using monthly data from April, 1993 to March, 2013 which covers 240 monthly observations. The monthly closing values of S&P BSE Sensex and S&P CNX Nifty have been considered as a proxy of the Indian Stock Market and have been used to obtain a measure of market price movement of

Indian securities. Consumer price index (CPI) of industrial workers has been used as a proxy of inflation in Indian economy. The base year of CPI is 2001 and the base value is 100.

Closing data pertaining to Sensex and Nifty are collected from the respective web site of Bombay Stock Exchange and National Stock Exchange, and the inflation rate (CPI) related data are collected from various issues of Handbook of Statistics on the Indian Economy and Reserve Bank of India Bulletin, published by Reserve Bank of India and from the official web site of Labour Bureau, Government of India. Microsoft Office Excel 2007 and Eviews-7 package are used for econometric analyses.

Methodology

Given the nature of the problem and the quantum of data, we first study the data properties from an econometric perspective with the help of descriptive statistics and unit root test to show the nature and basic characteristics of the variables used in the analysis and to find out whether the data series are stationary or non stationary. This would help us applying Cointegration test, Vector Error Correction Model (VECM), Variance decomposition test and Impulse Response Analysis to establish the long and short-run dynamic relationship between the variables and Granger causality test to identify the direction of causality.

The stationarity of a data series is a prerequisite for drawing meaningful inferences in a time series analysis and to enhance the accuracy and reliability of the models constructed. The unit root test is one of the common methods to find whether a time series is stationary or not. The unit root test result gives an idea whether the data series contain unit root property or not. The test results also indicate the order of integration. When applying regression models or cointegration techniques, the order of integration is essential. If the applied data has not the correct order of integration, spurious regressions or wrong test statistics are the consequences and can make the analysis useless. There are a large number of unit root tests available. We, however, use only three of the most popular and commonly used tests like Augmented Dickey-Fuller (ADF) test, Phillips-Perron (PP) test and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) test. The decision regarding the unit root property could be taken by considering the two popularly used unit root test results namely ADF Test and PP test. If there arise any contradiction among the two results derived from two different unit root tests, than

for this case, the decision regarding the unit root property can be taken with the help of the unit root result obtained from KPSS test.

As the autoregressive model is sensitive to the selection of appropriate lag length, the study ascertains the appropriate lag length prior to estimation. However, a large lag order in the VAR model can rapidly exhaust the degree of freedoms in small samples. There is no commonly agreed technique on how to select the lags and variables structure, while the outcome of the estimation heavily depends on the estimated settings. The study determines the optimum lag length based on the Akaike Information Criteria (AIC), Schwarz Information Criteria (SIC) and Hannan-Quinn Information Criteria (HQC).

To determine the long-run relationship between the inflation rate and Indian stock market the study considers VAR-based approach of cointegration test suggested by Johansen (1988). In this approach of cointegration test, Trace test (or Likelihood ratio test) as well as Maximum Eigen value test are applied to decipher the stated long term dynamics. The concept of cointegration becomes more relevant when the time series being analysed are non-stationery in level and all the variables used in the study should be integrated in same order. In econometric terms, two or more variables are said to be cointegrated if they share common trend. Appropriately, the test provides us information on whether the variables, particularly measures of Indian stock prices and the inflation rate, are tied together in the long run. The presence of cointegration indicates interdependence of the endogenous variables, which may be the result of economic linkage between the markets or the arbitrage activities among investors.

There often exists a long-run equilibrium relationship between two or more variables but in the short run there may be disequilibrium. The nature of the relationship between inflation rate and stock market indices in the short-run can be explored by considering the Vector Error Correction Mechanism. A vector error correction model is a restricted VAR that has cointegration restrictions built into the specification, so that it is designed for use with non-stationary series that are known to be cointegrated. The error correction term of VECM specification indicates the rate at which it corrects its previous period disequilibrium or speed of adjustment to restore the long-run equilibrium relationship.

The study applies the Granger causality test to identify the existence and nature of the causal relationship between the variables. It can be conducted in two different ways depending on the results of the

long-run analysis. The Granger test (Granger, 1969) is suitable for analyzing the short-run causal relationship if no cointegration exists among the variables. On the other hand, when the variables are cointegrated, the standard Granger test is misspecified and the error correction strategy suggested by Engle and Granger (1987) should be used. The study proceeds with a Granger causality test in the form of vector error correction model, as the variables are found to be cointegrated. VECM allows the modelling of both the short-run and long-run dynamics for the variables involved in the model. The error correction term of VECM indicates the direction of long-run causality and the short term causality among the variables are tested through VEC Granger causality test or Block Exogeneity Wald test.

Despite the importance of conducting causality tests, the empirical inferences based on the causality test do not determine the strength of the causal relationships between the variables nor do they describe the relationship between these variables over time. Variance decomposition test is used to explore the degree of exogeneity of the variables involved in this study. It illustrates the share of the forecast error of one variable as a result of changes in the other variables. Hence, the relative significance of each variable can be determined which causes oscillations in the other variable. Similarly, the empirical inferences based on the Granger causality test helps to qualify the flow of influences but the estimates of the Impulse Response Analysis can give us a quantitative idea about the impacts for several periods in future. The estimated impulse response of the VAR system enables us to examine how each of the variables responds to innovations from other variables in the system. More specifically IRFs essentially map out the dynamic response path of a variable due to a one standard deviation shock to another variable.

IV. FINDINGS OF THE STUDY

Findings from the Descriptive Statistics

The basic statistical values of the variables are calculated in the first phase of our study. The descriptive statistics provide a historical background for the behaviour of the data used in the study. From the descriptive statistics presented in Table- 1 it is observed that the inflation rates as well as the values of Sensex and Nifty are not stable at all during the study period. In respect of CPI the maximum value of 224 and the minimum value of 52.91, with an average of 115.59, justify that the

values of inflation (represented by CPI) are highly unstable during the study period. High value of standard deviation also shows the variability of the monthly value of inflation rate. During the study period the Sensex and Nifty also have very high and significant variability from their mean. The high differences between maximum values and minimum values reveal that the stock prices are also highly unstable during this period. However, in most of the cases values of the data series lie within $\bar{X} \pm 3\sigma$, where, $\bar{X}$ and σ represent mean and standard deviation respectively.

TABLE- I

Descriptive Statistics

Statistics	S&P BSE Sensex	S&P CNX Nifty	Consumer Price Index (CPI)
Mean	8313.83	2502.31	115.59
Median	4754.20	1415.10	106.04
Maximum	20509.09	6138.60	224.00
Minimum	2122.30	622.42	52.91
Standard Deviation	6010.22	1792.46	43.66
Skewness	0.75	0.75	0.76
Kurtosis	1.89	1.92	2.75
Jarque-Bera Test Statistic	34.66	34.25	23.97
Probability	0.0000	0.0000	0.0000

From the descriptive information it can be said that none of the variables are normally distributed, though, in most of the cases, the median values of variables are very close to average values. The measures of skewness suggest that the variables are not distributed symmetrically. Both the Indian stock indices and the values of CPI are skewed. The values of the kurtosis indicate that all the variables are less peaked than the normal distribution, i.e., they follow platykurtic distribution. Results obtained from Jarque-Bera statistic confirm that none of the series are normally distributed.

Findings from Long-Run Analysis

As mentioned before, the long-run analysis is conducted using the Johansen cointegration test. Typically, the Johansen cointegration

test consists of three general steps. First, examine whether all variables in the model are integrated of the same order, which can be established by unit root tests. Second, determine the optimal lag length for the VAR model to verify that the estimated residuals are not autocorrelated. Third, estimate the VAR model to construct the cointegration vectors in order to determine the cointegrating relationship. For this, it is necessary to establish the trace and the maximum eigen value statistics tests. The following subsections present the results for each step.

Results of Unit Root Test

As already stated, testing stationarity of a data series is a prerequisite for drawing meaningful inferences in a time series analysis. It enhances the accuracy and reliability of the models constructed. So, it is necessary to determine the unit root property and order of integration for each variable included in the system. All the unit root tests (ADF, PP and KPSS) are performed with intercept, and time trend and intercept for all variables in their levels and then the tests are performed with their first difference values, and so on.

Table- 2 and Table- 3 presents the Augmented Dickey-Fuller and Phillips-Perron unit root test results of the variables in their level and first difference. The result shows that for the ADF test, all the variables appear to be I(1) except consumer price index. The ADF test statistics of consumer price index fail to reject the null hypothesis of the existence of a unit root in its levels and first difference values. The ADF test statistics of CPI, in its second difference, for the two models Intercept and Trend & Intercept are -11.7261 and -11.7438 respectively with 1 percent significance level shows that consumer price index is integrated of order two i.e. I(2).

TABLE- II

Results of Augmented Dickey-Fuller (Adf) Unit Root Test

Variables	Level		First Difference		Result
	Intercept	Trend and Intercept	Intercept	Trend and Intercept	
SENSEX	-0.4033 [0] (0.9052)	-2.0411 [0] (0.5754)	-15.2228 [0] (0.0000)	-15.2191 [0] (0.0000)	I(1)
NIFTY	-0.4374 [0] (0.8992)	-2.1616 [0] (0.5084)	-15.7822 [0] (0.0000)	-15.7785 [0] (0.0000)	I(1)

CPI	5.5177 [7] (1.0000)	3.5881 [7] (1.0000)	-1.1855 [11] (0.6811)	-2.3907 [11] (0.3834)	I(2)

Notes: ( ) MacKinnon (1996) one-sided p-values; [ ] Lag lengths for ADF Test;
I(1): Stationary after first difference; I(2): Stationary after second difference

TABLE- III

Results of Phillips-Perron (Pp) Unit Root Test

Variables	Level		First Difference		Result
	Intercept	Trend and Intercept	Intercept	Trend and Intercept	
SENSEX	-0.5434 [7]	-2.2705 [7] (0.4480)	-15.2777 [6]	-15.2691 [6] (0.0000)	I(1)
NIFTY	-0.4995 [6]	-2.3028 [6] (0.4304)	-15.7869 [6] (0.0000)	-15.7811 [6] (0.0000)	I(1)
CPI	4.7798 [2] (1.0000)	2.0280 [3] (1.0000)	-11.2195 [4]	-11.8762 [2] (0.0000)	I(1)

Notes: ( ) MacKinnon (1996) one-sided p-values; [ ] Lag lengths for PP Test;
I(1): Stationary after first difference

From the result of the Phillips-Perron unit root test presented in Table- 3 it is clear that the null hypothesis of non-stationarity cannot be rejected for any of the series in their levels since PP statistics of the variables are not less than the critical values at any significance level, i.e., 1%, 5%, and 10%. Therefore, the PP test concludes that all series are non-stationary in level. Applying the same test to their first differences shows that the null hypothesis of a unit root is rejected in all cases even at a 1% significance level. So, the PP unit root test results show that both the stock market indices and CPI are integrated of order one i.e., I(1).

The ADF and PP test results of consumer price index are not consistent with each other. So, a contradiction arises between the two results obtained from two different unit root tests. The ADF test result suggests that CPI is integrated of order two whereas the PP test result suggests that the CPI is integrated of order one. For this contradictory case the final decision regarding the unit root property can be taken with the help of the unit root test result obtained from Kwiatkowski-Phillips-Schmidt-Shin test. The KPSS test results presented in Table- 4 show that the consumer price index follow I(1) process as the null hypothesis of KPSS test (i.e., the series does not contain unit root) are rejected in level

but accepted in their first difference. So, from the unit root tests results, it is observed that all the variables are stationary at their first difference.

TABLE- IV

Results of Kwiatkowski-Phillips-Schmidt-Shin (Kpss) Unit Root Test

Variables	Level		First Difference		Result
	Intercept	Trend and Intercept	Intercept	Trend and Intercept	
CPI	1.9415*** [11]	0.4203*** [11]	1.3457 [6]	0.3265 [2]	I(1)

*Notes: *** Statistical significance at 1% level; [ ] Lag lengths for KPSS Test;*
I(1): Stationary after first difference

Selection of Optimum Lag Length

As the autoregressive model is sensitive to the selection of appropriate lag length, the study is to ascertain the appropriate lag length before conducting the cointegration analysis in line with Johansen. The optimum lag length based on the three commonly used criteria, namely AIC, SIC and HQC are presented in Table- 5. The three lag length selection criteria suggest three different lag lengths as optimum lag. The AIC and HQC criteria suggest higher lag length, but the present study could not take the risk of over parameterization by considering too higher lags for the VAR model. Therefore, the study chose SIC criteria for optimum lag length selection and the optimum lag length is 1, having the lowest SIC value.

TABLE V

Var Lag Order Selection Criteria

Lag Length	AIC		SIC		HQC	
	SEN & CPI	NIF & CPI	SEN & CPI	NIF & CPI	SEN & CPI	NIF & CPI
0	28.97535	26.47000	29.00543	26.50008	28.98749	26.48214
1	18.99315	16.62949	19.08339 *	16.71973*	19.02956	16.66590
2	18.95771	16.59686	19.10812	16.74727	19.01840	16.65755*
3	18.97167	16.61577	19.18224	16.82635	19.05663	16.70073

4	18.97689	16.63328	19.24762	16.90402	19.08612	16.74252
5	18.96071	16.61292	19.29161	16.94382	19.09422	16.74643
6	18.92177	16.58161	19.31284	16.97268	19.07955	16.73940
7	18.88323	16.55477	19.33446	17.00600	19.06529	16.73683
8	18.78781	16.45401	19.29921	16.96540	18.99415*	16.66034
9	18.79452	16.45901	19.36608	17.03057	19.02513	16.68962
10	18.75732 *	16.42774 *	19.38904	17.05946	19.01220	16.68262
11	18.76479	16.43459	19.45667	17.12647	19.04394	16.71374
12	18.75849	16.42995	19.51053	17.18200	19.06191	16.73338

*Notes: * Indicates lag order selected by the criterion*

Results of Johansen Cointegration Test

The calculated values of trace statistics of Johansens cointegration test (presented in Table- 6) for CPI & Sensex and CPI & Nifty, when the null hypothesis is r = 0 (i.e., no cointegration), are 22.97 and 23.52 respectively and maximum eigen statistics (presented in Table-7) are 19.34 and 19.52 respectively. Here the null hypothesis of no cointegration when r = 0, is rejected at 5 per cent level of significance, as the calculated value of trace statistics and maximum eigen statistics are higher than the MacKinnon-Haug-Michelis critical value at 5 percent level of significance. This indicates the existence of one cointegrating vector among consumer price index and each of the stock market indices. So the Johansen's cointegration test result support the hypothesis that inflation rate (CPI) and stock prices (Sensex and Nifty) are cointegrated and there exist long term cointegrating relationship. The long run cointegrating equations are

$$\text{Sensex} = 11661.66 - 29.16974\ \text{CPI} + u_t$$

$$\text{Nifty} = 3131.557 - 5.500400\ \text{CPI} + u_t$$

The above cointegrating equations indicate the existence of negative co-movement between inflation rate and stock prices in India, which means that they move together in the opposite direction.

TABLE- VI

Results of Johansen Cointegration Test (Trace Statistics)

Model	H_0	H_1	Trace Statistics	5% Critical Value	Probability*

SEN & CPI	r = 0	r = 1	22.96703	15.49471	0.0031
	r ≤ 1	r = 2	3.628033	3.841466	0.0568
NIF & CPI	r = 0	r = 1	23.52002	15.49471	0.0025
	r ≤ 1	r = 2	3.598469	3.841466	0.0555

** MacKinnon-Haug-Michelis (1999) p-values*

TABLE VII

Results of Johansen Cointegration Test (Maximum Eigen Statistics)

Model	H_0	H_1	Maximum Eigen Statistics	5% Critical Value	Probability*
SEN & CPI	r = 0	r = 1	19.33899	14.26460	0.0072
	r ≤ 1	r = 2	3.628033	3.841466	0.0568
NIF & CPI	r = 0	r = 1	19.52155	14.26460	0.0067
	r ≤ 1	r = 2	3.598469	3.841466	0.0555

** MacKinnon-Haug-Michelis (1999) p-values*

Findings from Short-Run Analysis

Having established that each of the stock indices and consumer price index are cointegrated between themselves, the fundamental question regarding the nature of the relationship between these variables in the short run can be answered by considering the vector error correction mechanism.

Result of the Vector Error Correction Mechanism

Table- 8 and Table- 9 present the results of the vector error correction model for Sensex & CPI and Nifty & CPI respectively. The t-values associated with the coefficient of the lag value of the CPI are statistically significant when Sensex or Nifty is used as a dependent variable, which indicate that consumer price index negatively affect the Indian stock indices in short run also.

Moreover, the VECM results indicate that consumer price index adjusts the disturbances to restore long-run equilibrium significantly and in right direction, but the Sensex and Nifty do not react significantly. The coefficients of error correction term for two separate models, having Sensex and Nifty, are -0.0013 (Table- 8) and -0.0009 (Table- 9) respectively, which are significant at 1 percent level of significance. These values indicate the rate at which they correct the disequilibrium of the previous period. Thus, the speed of adjustment towards the long-run equilibrium is about 0.13 per cent and 0.09 per cent per month for sensex and nifty respectively.

TABLE- VIII

Results of Vector Error Correction Model (Sensex & CPI)

Independent Variables	**Dependent Variables**	
	D(SENSEX)	**D(CPI)**
ECT (γ_1)	0.003630 [0.50368]	-0.001260*** [-4.40917]
D(SENSEX(-1))	-0.001571 [-0.02406]	0.000113 [1.27831]
D(CPI(-1))	-96.09576** [-2.04434]	0.218230*** [3.41515]
C	138.7142** [2.37154]	0.554007*** [6.96741]

*Notes: *** Statistically significant at 1% level; ** Statistically significant at 5% level; [ ] t-values*

TABLE- IX

Results of Vector Error Correction Model (Nifty & CPI)

Independent Variables	**Dependent Variables**	
	D(NIFTY)	**D(CPI)**
ECT (γ_1)	0. 003737 [0.47313]	-0.000852*** [-4.43214]
D(NIFTY(-1))	-0.038644 [-0.59099]	0.000312 [1.07966]
D(CPI(-1))	-29.17765** [-2.01879]	0.218189*** [3.41238]
C	42.79446** [2.37872]	0.555362*** [6.97774]

*Notes: *** Statistically significant at 1% level; ** Statistically significant at 5% level; [ ] t-values*

Findings from Causality Test

As the variables are cointegrated, the standard Granger test is misspecified and the error correction strategy suggested by Engle and Granger (1987) is used to identify the long and short term causal relationship among the variables. The result of the long-run and the short-run causality test under VECM framework are reported below.

Long-run Causality

The t-values associated with the error correction terms of VECM, reported in Table- 8 and Table- 9, indicate the existence of significant unidirectional long-run causality. Any change in stock prices causes a change in consumer price index as the coefficients of the error correction term -0.0013 and -0.0009 are statistically significant at 1 percent level.

Short-run Causality

The results of short-run causality test among the variables based on VEC Granger Causality test are presented in Table- 10. According to the obtained results, it can be said that there exists a unidirectional short-run causal relationship between the stock market indices and consumer price index. But in short-run the study shows a reverse direction of causality from that of the in long-run. In short-run the movement of consumer price index causes the movement of Indian stock market indices as the Chi-square statistics are statistically significant when the stock indices are used as dependent variable.

TABLE- X

Result of Vec Granger Causality / Block Exogeneity Wald Test

Model	Dependent Variables	Independent Variables	Chi-Square Value	Probability Value	Implication
SENSEX & CPI	SENSEX	CPI	4.179321	0.0409	Existence of Causality
	CPI	SENSEX	1.634070	0.2011	No Causality

NIFTY & CPI	NIFTY	CPI	4.075523	0.0435	Existence of Causality
	CPI	NIFTY	1.165657	0.2803	No Causality

Results of Variance Decompositions Test and Impulse Response Functions Analysis

The study has estimated the impulse response functions and variance decompositions under the VECM framework to investigate the dynamic relationship between inflation rate and stock prices in India.

Table-11 and 12 indicate that Sensex and Nifty are strongly exogenous because almost 97 per cent of their own variances are explained by its own shock even after 24 months while the explanatory power of CPI, is found insignificant. A very small portion of the forecast error variance of stock indices is explained by the consumer price index. This is due to the fact that, during the study period, stock prices are more dependent on themselves than on the CPI. The results also indicate that the values of CPI are comparatively less exogenous than the Indian stock market in the sense that the percentage of the error variance of CPI accounted by its own is approximately 80 per cent at time horizon of 24 months.

TABLE- XI

Variance Decomposition of Sensex and CPI

Variance Decompositions of	Period	Percentage of Forecast Error Variance Explained by Innovation in:	
		Sensex	CPI
Sensex	1	100.00	0.00
	4	98.29	1.71
	8	97.79	2.21
	12	97.62	2.38
	16	97.54	2.46
	20	97.48	2.52
	24	97.44	2.56
CPI	1	0.05	99.95
	4	1.12	98.88
	8	3.30	96.70
	12	6.41	93.59
	16	10.32	89.68
	20	14.86	85.14
	24	19.84	80.16

TABLE- XII

Variance Decomposition of Nifty and CPI

Variance Decompositions of	Period	Percentage of Forecast Error Variance Explained by Innovation in:	
		Nifty	CPI
Nifty	1	100.00	0.00
	4	98.32	1.68
	8	97.85	2.15
	12	97.68	2.32
	16	97.60	2.40
	20	97.55	2.45
	24	97.51	2.49
CPI	1	0.08	99.92
	4	0.88	99.12
	8	3.00	97.00
	12	6.22	93.78
	16	10.36	89.64
	20	15.21	84.79
	24	20.55	79.45

The results of the impulse response analysis for a time horizon of 24 months to a 'one standard deviation' shock in Sensex and CPI are shown in Figure-1. Figure-2 summarizes the impulse responses of Nifty to one standard deviation shock in CPI and vice versa for the next 24 months. The responses generated from a positive shock on CPI are negative and persistent effect on Indian stock markets. The responses are negative for both the stock indices.

Summary of the Results and its Interpretation

The study investigates the impact of inflation rate on Indian stock market over the period from April 1993 to March 2013. Existing financial and economic literatures advocate a relationship

FIGURE-1: Impulse Responses of Sensex and Cpi to One Standard Deviation Shock in the Variables

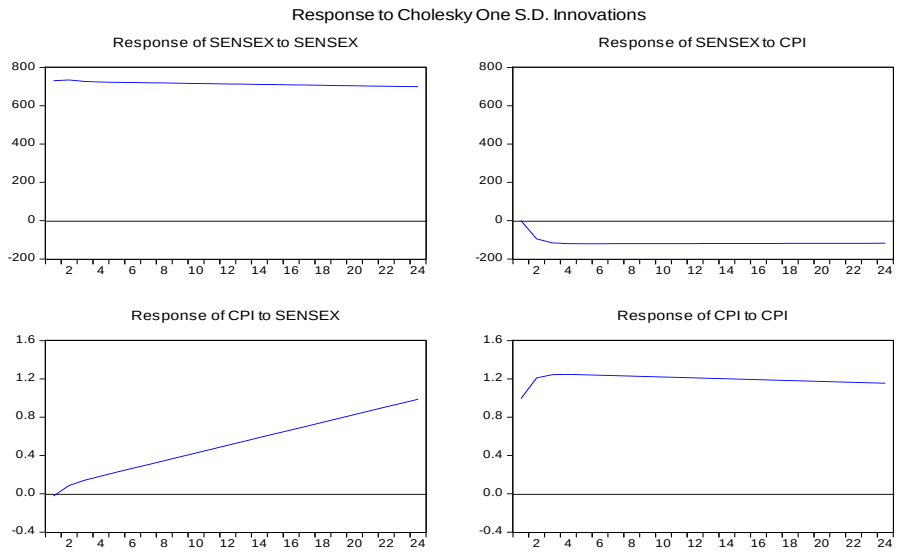
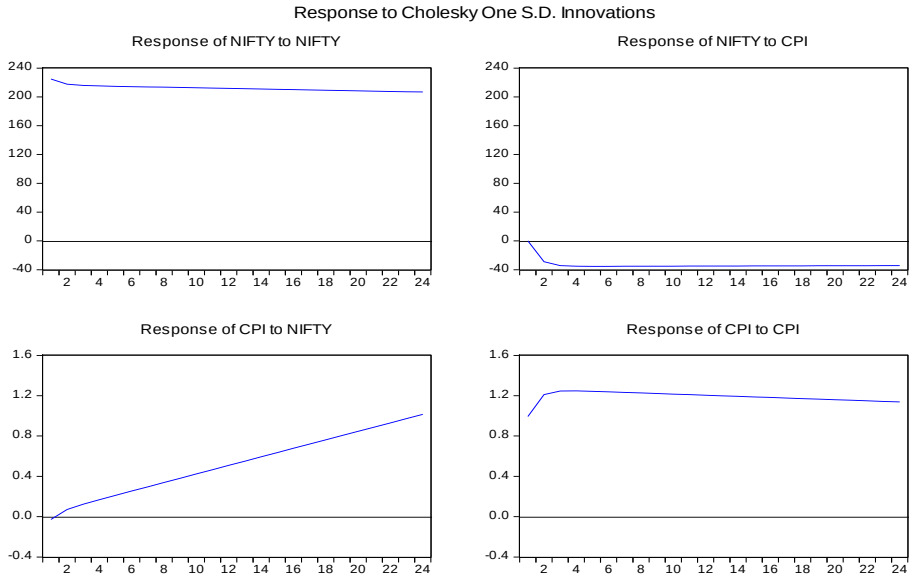


FIGURE-2: Impulse Responses of Nifty and CPI to One Standard Deviation Shock in the Variables



between the stock market and inflation rate. However, these literatures suggest some contradictory findings regarding the nature of the relationship and the degree of influencing power. These contradictory

findings of the earlier studies are the principal motivation behind conducting this research work in Indian context.

Findings of this study provide a comprehensive understanding of the dynamic relationship between the movement of inflation rate and stock prices in India. In line with the earlier findings made by Fama and Schwert (1977), Solnik (1983), Mukherjee and Naka (1995), Omran and Pointon (2001), Bhattacharya and Mukherjee (2002), Sahu and Gupta (2011), and Naik and Padhi (2012) our present study based on Johansen's cointegration test confirms the existence of a significant negative long run co-movement between inflation rate and stock prices in India. The VECM result indicates that in short-run the inflation rate negatively affects the Indian stock market. Moreover, the Granger Causality test confirms that in short-run inflation rate causes the stock market movement. However, the error correction term of the VECM framework indicates that in long-run inflation rate does not causes the stock market movement rather the movement of stock prices causes the change in inflation rate.

Under normal circumstances, a rise in expected inflation rate leads to restrictive monetary policies, which in turn may lead to an increase in interest rate and thereby raise the discount rate in the valuation model. This increase in the discount rate would reduce the present value of net income, and thus should lead to lower stock prices. Further, rise in interest rates will increase the firms borrowing costs, which will reduce net income and thus stock prices. Moreover, the inflationary tendency would decrease the value of money and the purchasing power of the people. High rate of inflation increases the cost of living and a shift of resources from stock market instruments to consumables. This leads to a reduction in the demand for stock market instruments which tends to reduce the volume of trading. Another possible implication of this result is that the Indian stock market is not an effective hedge against inflation; hence investors probably would shift their portfolios from stock market, which is risky, to real assets if the expected inflation rate becomes high. Furthermore, high inflation can cause uncertainty about future prices and trigger precautionary savings. Higher precautionary savings will impact consumption and hence corporate sales growth. In the longrun, it is observed in the study that stock market influences inflation --- which is theoretically not possible. However, the explanation can be had from Fisher (1930). The nominal interest rate is the sum of real interest rate and expected inflation. The economic activity is influenced by nominal interest and also by real or

published inflation figures. So, stock market gets affected by the nominal interest rate of the country i.e. by real interest rate and also by expected inflation rate. The stock market players try to stay ahead of time by estimating inflation data indirectly from different economic indicators and news. Thus, stock market reacts even before the official publication of news of inflation in the long run. However, when the exact inflation data is published, the stock market gets adjusted to be more precise. So, in the short run again we found that news on inflation influences stock market.

V. CONCLUSION

In this study we have presented extensively the evidences on the relationships between inflation rate and the stock prices in India. The estimated results indicate that the Indian stock market is sensitive to changes in inflation rate in the long run as well as in short run and the rate of inflation negatively affects the movement of stock prices.

Evidence of this study provides a comprehensive understanding on the dynamic relationship between inflation rate and stock market in India. It discusses the theoretical hypotheses on this captioned relationship and compares with empirical evidences from prior research. The study extends the literature by examining the relationship in the emerging market of the Indian economy. This study is expected to offer some insights for financial regulators and policymakers for formulating economic and financial policies. The sense of this inter-relationship is also useful to shareholders and portfolio managers as it provides a better understanding of portfolio structure and evaluation to improve overall portfolio design and performance. Thus, it is worth to carry out such studies on emerging economies like India as the study contributes to the managerial science by providing scientific elements through identification and validation of the effects of inflation rate on the stock market performance. Therefore, more efficient risk measurement and management models can be established allowing greater confidence levels to the decision making process in stock market investments.

Scope of Further Studies

This study suggests some future research to enhance our understanding about the relationship between inflation rate and stock market movement. Further research efforts could either eliminate some of the limitations or expand the scope of investigation in this study. The

possible extension of this study is to consider the impact of inflation rate along with other important macroeconomic determinants such as interest rate, growth rate in real sector etc. which are not included in the analysis. Moreover, instead of using only the quantitative macroeconomic variables the study suggests the inclusion of socio-economic and political factors as dummy variables on these grounds. Further, the study could empirically test the relationship by considering the potential structural breaks in the time series data. But, this is beyond the aim of this present study. It is left for further research.

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Business Risk in FMCG Companies in India during the Post-liberalization Era: An Empirical Analysis

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ABSTRACT

The FMCG industry in India has been making significant contribution towards developing the economy not only by providing a large number of consumer goods but also by generating a considerable amount of employment in India. In the environ of diverse challenges in India arising out of the liberalisation measures taken by the Government of India, FMCG companies have also made remarkable changes in their business policies. It has resulted in considerable changes in the pattern of business risk associated with the Indian FMCG companies. In this backdrop, the present paper seeks to analyse the business risk associated with 20 selected companies in the Indian FMCG sector during the period 1995-96 to 2011-12.

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Key Words: *Post-reform era, Business risk analysis, FMCG industry.*

I. INTRODUCTION

Business firms do at all times undertake risks owing to threats from its economic, social, political and natural environment where they are embedded and struggle to exist and grow. The risks may come out of macro-level intimidation or micro-level limitations, may be external or internal to the firm, may be controllable or uncontrollable, but each of these risks has its own substance and strength to scale down the financial stability of business firms. Hence, studying risks is fundamental because if they are not treated appropriately and minimized they can cause serious damage to the financial health of business bodies.

Business risk arises out of the randomness in company's real returns in contrast to its projected returns. The class and size of business risk depends on a number of factors, internal or external, associated with the company's operations and marketing activities. Business risk is central to business firms because it influences the operation or the profitability of a company to an enormous extent. Though business risks may take place in different forms and in different magnitude depending upon the nature and mass of the business, generally it is composed of three basic kinds of risk, which are, one, *economy- specific risk,* two, *industry-specific risk* and third, the final, *company-specific risk*. *Economy-specific risk*, generally beyond the control of a capitalist or a corporate, affecting all the sectors of an economy, arises out of the events like inflationary tendency in the economy, rising unemployment, fluctuations in the world economy, price fluctuations, changes in tastes and preferences of the consumers and changes in income, output or trade cycles, fluctuations in foreign exchanges, concentration of revenue, imports, etc. Natural calamities like volcanic activity, torrent, famine, cyclone, lightening etc. which cause loss of life and property may also be included in this category of risk. For example, the massacre of a vast area in and around Kedarnath Temple following the devastating Uttarakhand Flood of 2013 caused irretrievable damage not only to the lives and livelihood of a large number of people but it adversely affected the whole economy of the State. Political factors like fall or change in the Government, communal violence or riots, civil war as well as hostilities with the neighbouring countries, changes in Government policies and regulations, changes in industrial policy and trade policy, annual budget amendments …. All these have an important influence on the functioning of a

business, both in the short run and in the long. *Industry-specific factors* relate to the industry to which the company belongs. Changes in demand for the product, increased competition for the product, special status enjoyed by the industry, growth prospects of the output produced or service rendered by the industry in the market and so on are included in this category. *Company-specific risks* are explicit to the affairs of the company concerned with such as human factors like managerial competence, talent management, strikes, technological factors like emerging technologies; physical factors like failure of machines, fire or theft; operational factors like access to credit, cost cutting, cost structure, asset composition, advertisement, organizational culture, ethical values and so on. The C*ompany risk* emanates from precariousness in one or more fronts of the company, important of which are instability in cost behaviour pattern, dispersion of revenue generating capability using long term funds and variability in short term debt paying capability. These weaknesses lead to cost structure risk, capital productivity risk and liquidity risk (Sur & Mitra, 2011). There is almost no scope to exercise control over the economy risk and industry risk while it is, to some extent, possible to have power over the company risk. Theoretically, it is expected that high risk can be rewarded by higher risk premium i.e. higher return. It will be hard to a company with high risk-low return profile to run its operating wheel in the long run. However, the issue relating to the nature and degree of association between risk and return is a controversial one. The findings of the relevant studies carried out so far are conflicting and inconclusive in nature. One school of thought argues that there is a high degree of positive affiliation between risk and return (Cootner & Hollant, 1970) while the other provides exactly the opposite argument (Bettis & Mahajan, 1985; Singh, 1986; and Mallik & Sur, 2009). However, there exists a third alternative view which suggests that risk and return are influenced by various industry conditions and business strategies, but not by each other (Oriatt and Bauershmidt, 1991)

II. REVIEW OF EXISTING LITERATURE

Since a long period of time a good number of scholars have made notable contribution to the literature of corporate finance by conducting empirical research studies on business risk associated with the companies at both domestic and global levels. Some of the worth mentioning scholarly research studies are reviewed as below which can throw some light to estimate the research gap.

The seminal contribution to the corporate finance literature in regard to leverage and firm's value was made by Modigliani and Miller (1958). With some restrictive conditions they for the first time coined the irrelevance theory of capital structure decision on firm's value. Modigliani and Miller (1963) later added corporate taxes to their model and then established that earnings and market value of the firm can only be maximized by 100% levered firm.

The study conducted by Lev (1974) on risk and leverage documented empirical evidence that of positive association between market risk and operating leverage.

Gahlon and Gentry (1982) analyzed the interrelationship between firms' real asset risk and their market risk. The outcome of the investigation exhibited the coefficient of variation of profits as a function of coefficient of variation of revenue and leverage.

Rhee (1986) carried on a research work where he tried to decompose beta or systematic risk associated with a firm and he found out that business risk, operating risk, and financial risk are three major dynamics of beta.

Prezas (1987) conducted a study to examine the impact of change in the capital structure on business and financial risk. The result of the study suggested that DOL and DFL will both be affected when the firm's capital structure changes and the changes in DOL and DFL depend on the relative sizes of the debt elasticity of real capital and contribution margin.

The result of the study conducted by Huffmen (1989) on US manufacturing firms during the study period 1966-1985 revealed that there existed a positive relationship between systematic risk and the degree of financial leverage and as well a negative relationship was observed between systematic risk and the degree of operating leverage. But the result of his study was exactly opposite of the findings of negative correlation between DOL and DFL observed by Mandelker and Rhee (1984).

The study conducted by Li and Henderson Jr. (1991) showed that interactions between investment and financing can either increase or decrease the impact of leverage on stock risk. Total leverage, estimated without regard to levels of its operating and financing components can better explain risk associated with the stock.

The empirical work of Ang (1992) suggested that there exists complex and contradictory relationship between the firm size and leverage.

Dugan et al. (1994) conducted an empirical research study on trade-off between operating and financial risk to manage the overall risk at an optimum level. He observed that two types of firms that are levered and non-levered ones differ significantly with regard to certain financial ratios, though the results are case sensitive to the selection of estimation technique for calculating the DOL and DFL coefficients.

Huo & Kwansa (1994) made an attempt to determine the significance of leverage on risk associated with the firm on firms belonging to hotel and restaurant industries during the recessionary period of 1990 to 1991. The result of the study suggested that the restaurants are riskier relative to the market and hotels are less risky as compared to the market, both are riskier relative to the utility industry during a recession.

Hatfield et al. (1994) conducted a study on the determination of optimal capital structure. The result of the study recommended that the market did not appear to consider the relationship between a firm's leverage ratio and the industry's leverage ratio important. This finding was in conformity with original Modigliani and Miller (1958) proposition that financial leverage is irrelevant to the value of the firm

Larry et al., (1995) conducted a study on leverage investment and growth of the firm. They reported significant negative relationship between leverage and future growth potential. The result of the study also reinforced the fact that leverage does not reduce the growth of the firms having better earning potential.

Rajan and Zingales (1995) in their study observed that firms' size, asset tangibility, profitability and growth prospects, can significantly explain the variation in firms' leverage and this relationships was found to hold good for all the firms of the seven countries despite their institutional differences.

Lord (1996) looked into theoretical model relating the operating characteristics of a firm to the total, systematic, and unsystematic risk of its equity. The empirical findings of the study suggested that the degree of operating leverage, net profits to firm value, and the variability of unit output were all found to be positively correlated with each of the three risk measures. The degree of financial leverage, while positively related to

total and unsystematic risk, did not appear to be related to systematic risk.

Griffin and Dugan (2003) conducted a study on systematic risk and revenue volatility. They have used degree of economic leverage (DEL) to explain the change in systematic risk. The result of the study documented that DEL have a significant impact on systematic risk and revenue volatility.

Mseddi and Abid (2004) looked into the association between firm value and risk. They utilized panel data to analyze the impact of operating and financial leverage levels on the value of the firm for 403 non-financial US corporations during the period 1995 to 1999. They documented that both financial and operating risk have a notable positive influence on the firm's value.

Ruland and Zhou (2005) documented a significantly strong positive relationship between leverage and the values of diversified firms

Moon and Tandon (2007) examined the impact of growth opportunities on the relationship between equity ownership and leverage and found that the association between equity ownership and leverage is significant for low-growth firms, but the same is not true for high-growth firms.

Li and Tang (2007) in their study of corporate governance evaluation and performance observed that low levels of financial leverage positively influenced the profitability, stock expansion ability and market value of listed firms.

Sur (2007) made an attempt to make a comparative analysis in respect of business and financial risks of NTPC Ltd. in the pre-liberalization and post-liberalization periods. The study revealed that there were considerable decreasing trends in both the business and financial risks associated with the company which resulted in a significant decline in its total risk profile during the post- liberalization period.

Mallik and Sur (2009) carried out a study to analyse the business and financial risks in the Indian corporate sector during the period 1995-96 to 2006-07 and also to examine whether its findings conformed to the theoretical arguments. While making this study fifty companies were selected by taking the top five companies (based on net sales revenue) from each of the ten selected manufacturing industries and coefficient of variation was used as the measure of risk . The study observed that no strong evidence of positive or negative relationship between business

and financial risks associated with the selected companies was noticed during the study and high risk was not at all compensated by high risk premium during the same period.

Bhatti et al., (2010) conducted a study to examine the impact of leverage on the stock return and risk of companies belonging to eight different industries listed in Karachi Stock Exchange of Pakistan during the study period 2005-2009. The result of the study confirmed that, generally high degree of leverage resulted in high level of systematic risk and consequently high volatility in stock prices.

Saleem et al. (2011) conducted a study to analyze and understand the effect of leverage on the profitability of the oil and gas sector of SAARC countries during the period 2001 to 2010. The result of the study suggested that there was a significant relationship between DFL, DOL and ROA and therefore, fixed operating expenses and the financing mix decisions of the firm can significantly affect the earning capacity the firm.

Sur and Mitra (2011) in their study attempted to make business risk analysis of seventeen selected companies in Indian IT sector during the period 1999-2000 to 2008-09. While measuring business risk and its company-specific components associated with the sample companies in their study Ginni's coefficient of mean difference was used. The study revealed that there was a lack of uniformity in respect of risk-return trade-off among the selected IT companies during the study period. Another notable outcome of the study was that high risk was not at all compensated by high risk premium in the selected companies during the period under study.

The study conducted by Prasetyo (2010), using samples of 225 public companies in Indonesia from the year of 2000 to 2009 provided strong evidence to the hypothesis that in the long run, there was a negative relationship between financial leverage and capital intensity

In the Indian context, Pachori and Totala (2012) conducted an empirical research on the impact of financial leverage on shareholders return and market capitalization on automotive cluster companies of Pithampura, M.P. The result of the study suggested no significant impact of financial leverage on return to owners and market capitalization.

Nimalathasan and Pratheepkanth, (2012) conducted a study on the impact of systematic risk management on profitability of select Srilankan financial institutions during 2007 to 2011. The result of the study confirmed a positive association between systematic risk and

profitability. Further the research outcome revealed that Systematic risk management was amplified by DFL and DOL where the beneficial impacts were observed on profitability.

In recent times a study was conducted by Azhagaiah and Sathia (2012) on corporate leverage and financial decision on 25 firms listed in BSE belonging to Indian textile industry during 2004 to 2008. The findings of the study confirmed that eight firms out of 25 selected ones registered significant growth rate in financial, operating and combined leverages.

Though a large number of studies on risk analysis have been carried out in India and abroad during the last few decades and a considerable number of studies on the issue relating to financial risk analysis have also been conducted in India during the post-liberalisation period, but no significant study on the analysis of business risk of the Indian FMCG sector has so far been made during the post-liberalisation era despite the fact that the FMCG sector in India has been playing a vital role in developing its economy not only by providing a large number of consumer goods necessary for carrying on day-to-day activities of the general people but also by generating a considerable amount of employment in India. The income as well as the consumption patterns of the people of India has marked notable changes in the post-liberalisation period. As a result, the companies belonging to the FMCG sector have also changed their business policies to face the diverse challenges emanated from the liberalisation measures taken by the Government of India. It leads to considerable changes in the pattern of business risk associated with the Indian FMCG companies. By a careful scrutiny of the studies of business risk analysis in Indian corporate sector it can be inferred that no in-depth study on this issue in connection with the FMCG sector in India considering the effects of the above mentioned changes in Indian business environment has been made. Moreover, Ginni's coefficient of concentration is presently recognised as a reliable measure of risk. But no study on business risk analysis in Indian FMCG sector has been carried out using such a coefficient. It is, therefore, high time to deal with the issue relating to the analysis of business risk in the Indian FMCG sector during the post-liberalisation period applying Ginni's coefficient of concentration.

III. OBJECTIVES OF THE STUDY

The objective of the present study is to analyse the business risk of the selected FMCG companies during the post-liberalization period. In specific terms, the objectives are:

1. To measure the degree of business risk associated with each of the selected FMCG companies and to compare the same with the Indian FMCG industry average.
2. To assess the company-specific components of business risk associated with each of the companies under study and to test whether there was any uniformity among such components.
3. To analyze the relationship between business risk and its company-specific components of the selected companies.
4. To study the relative risk-return status of the selected companies.
5. To evaluate the nature and extent of the relationship between risk and return of the selected companies.
6. To examine whether the findings of the study conform to the theoretical arguments.

IV. FMCG SECTOR IN INDIA: A BRIEF PROFILE

FMCG sector is the fourth largest in the Indian economy and has a market size of $13.1 billion. This industry primarily concerns with the production, distribution and marketing of consumer packaged goods, that is, those categories of products which are consumed by people at regular intervals. The sector is growing at a rapid pace with well-established distribution networks and intense competition between its organized and unorganized segments. It has a strong and competitive MNC presence across the entire value chain. The FMCG's promising market includes middle class and the rural segments of the Indian population, and give brand makers the opportunity to convert their produce to branded products. It includes food and beverage, personal care, pharmaceuticals, cosmetics, plastic goods, paper and stationery and household products etc.

India, Asia's third largest economy, saw urban consumers spend less in calendar year 2012 due to high inflation, muted salary hikes, and slowing economic growth that affected both real wages and sentiment. During 2012, the overall slowdown in the economy has begun to affect the FMCG sector with companies posting deceleration in volume growth in the recent quarterly results. Discretionary spending has been hit

severely due to the ongoing slowdown. The prevailing high inflation level is also a cause of concern for the sector. The trends seen in 2012 are likely to accelerate in 2013. Growth will come from rural dwellers that are expected to see a rise in disposable incomes due to the direct cash transfer scheme, while urban consumers will continue to be affected by the macroeconomic environment.

V. METHODOLGY OF THE STUDY

The study is based on twenty companies which were taken from the top twenty five FMCG companies in India (based on the sum of total income and total assets) following purposive sampling procedure. The selected twenty companies are listed in Appendix 1. Thus selection was made considering 'The BW Real 500' published by the Business World, Vol. 30 Issue 24, Kolkata, November 1, 2010. The data of the selected companies for the period 1995-96 to 2011-12 used in this study were collected from secondary source i.e. Capitaline Corporate Database of Capital Market Publishers (I) Ltd., Mumbai. As the liberalization process started in India during the financial year 1991-92, it is obvious that the effect of it could not be reflected immediately after its inception. Thus, in this study the financial year 1995-96 was considered as the initial year of the post-liberalization period. For measuring the business risk and its company-specific components associated with the selected companies using Ginni's coefficient of concentration was used. While making the analysis of the computed values of risks, statistical techniques, such as analysis of Kendall's coefficient of concordance, Pearson's simple correlation analysis, Spearman's rank correlation analysis, Kendall's correlation analysis and statistical tests like t-test and $\chi 2$ were applied at appropriate places.

VI. LIMITATIONS OF THE STUDY

1. While carrying out the study the data disclosed in the published financial statements of the selected companies were used.
2. Only the company-specific components of the business risk associated with the selected companies were analysed in this study. The analysis of economic-specific and industry-specific components of business risk was not made in this study.
3. The issue relating to the minimization of cost structure risk through forex management was not taken into consideration in this study.

VII. EMPIRICAL FINDINGS

1. In Table 1, an attempt was made to measure the degree of business risk (BR) associated with the selected companies in Indian FMCG industry during the study period. The BR of each of the selected companies was ascertained by Ginni's coefficient of concentration of operating profit to capital employed (OPCE) ratio. Table 1 shows that the degree of BR was the highest in Colgate, followed by Godfrey, ATFL, Nestle, KSOL, HUL, TTL, Cadbury, ITC, Marico, Uflex, Dabur, Ruchi, VST, GAEL, Nirma, BIL, P&G, Glaxo and GRSL respectively in that order. The degree of BR associated with HUL, Nestle, TTL, KSOL, Godfrey, Colgate, Cadbury and ATFL was far above the Indian FMCG industry average while that of the remaining twelve companies under study was below the industry average.

TABLE I
Ranks of Business Risk of the selected companies in Indian FMCG Industry

Serial No.	Company	Business Risk	Status	Rank
1	ITC Ltd.(ITC)	0.152	B	9
2	Hindustan Unilever Ltd (HUL)	0.173	A	6
3	Ruchi Soya Industries Ltd. (Ruchi)	0.142	B	13
4	Nirma Ltd. (Nirma)	0.131	B	16
5	Nestle India Ltd (Nestle)	0.252	A	4
6	Tata Tea Ltd. (TTL)	0.172	A	7
7	Uflex Ltd. (Uflex)	0.148	B	11
8	Britannia Industries Ltd. (BIL)	0.128	B	17
9	KS Oils Ltd. (KSOL)	0.195	A	5
10	Dabur India Ltd. (Dabur)	0.147	B	12
11	GlaxoSmithKline Consumer Healthcare Ltd. (Glaxo)	0.112	B	19
12	Gujrat Ambuja Exports Ltd. (GAEL)	0.132	B	15
13	Gokul Refoils & Solvent Ltd. (GRSL)	0.097	B	20
14	Godfrey Philips India Ltd. (Godfrey)	0.278	A	2
15	Colgate –Pamolive (India) Ltd. (Colgate)	0.371	A	1
16	Cadbury India Ltd.(Cadbury)	0.162	A	8
17	Marico Ltd. (Marico)	0.151	B	10

18	VST Industries Ltd. (VST)	0.137	B	14
19	Agro Tech Foods Ltd.(ATFL)	0.265	A	3
20	P & G Hygiene And Healthcare Ltd. (P & G)	0.117	B	18
Indian FMCG Industry Average		0.161		
'A'A'denotes 'Business Risk above the Indian FMCG Industry Average' and 'B' denotes 'Business Risk below the Indian FMCG Industry Average'				
SoSource: Compiled and computed from 'Capitaline Corporate Database' of Capitaline Market Publishers (I) Ltd., Mumbai.				

2. In Table 2, three major company specific components of business risk, namely Liquidity risk (LR), Cost structure risk (CSR) and capital productivity risk (CPR) of each of the selected companies were measured by Ginni's coefficient of concentration of working capital ratio, that of variable cost to total cost ratio and that of capital turnover ratio respectively. In order to examine whether there was any uniformity among LR, CSR and CPR of the selected companies, Kendall's coefficient concordance (W) was used. For testing the significance of such coefficient chi-square ($\chi 2$) test was applied. Table 2 discloses that the risk in respect of short term debt paying capability was the maximum in Godfrey, the next five positions were occupied by Colgate, ATFL, KSOL, Nestle and HUL respectively while the degree of LR was the least in GRSL. Ruchi, Nirma, BIL, Glaxo, GRSL and P & G were placed in the category of ' LR below the Indian FMCG industry average' whereas the remaining fourteen companies found place in the ' LR above the Indian FMCG industry average' category. In respect of CSR, ATFL captured the topmost position and the next five positions were occupied by Colgate, Godfrey, Nestle, KSOL and HUL respectively whereas the degree of CSR was the minimum in GRSL. In eleven selected companies namely ITC, HUL, Nestle, TTL, Uflex, KSOL, Godfrey, Colgate, Cadbury, Marico and ATFL the CSR was higher as compared to the industry average while the remaining nine companies were placed in the ' below the industry average' category. KSOL maintained the highest level of risk of not getting stable turnover by utilizing average long term funds, followed by HUL, Colgate, Nestle, ATFL, ITC and so on while the degree of CPR was the least in Dabur. Based on the CPR was Ruchi, Nirma, BIL, Dabur, Glaxo, GRSL, Marco, VST and P & G were placed in the 'below the industry average' category whereas the remaining eleven companies found place in the category of 'CPR above the Indian FMCG industry average'. At a glance, uniformity among LR, CSR and CPR of the selected companies was observed during the period understudy.

Table 2 also reveals that the computed value of W was 0.836 which was found to be statistically significant at 0.01 levels. It confirms the existence of uniformity among the selected company. Specific components of business risk associated with the companies understudy during the study period.

TABLE II
Ranks of Company-Specific Components of Business Risk of the Selected Companies in Indian FMCG Industry

Sl No.	Com-pany	Liquidity Risk (LR)			Cost structure Risk (CSR)			Capital Productivity Risk (CPR)		
		LR	Status	Rank	CSR	Status	Rank	CPR	Status	CPR
1	ITC	0.171	A	10	0.070	A	9	0.190	A	6
2	HUL	0.187	A	6	0.080	A	6	0.215	A	2
3	Ruchi	0.141	B	14	0.052	B	15	0.132	B	16
4	Nirma	0.139	B	15	0.058	B	14	0.129	B	17
5	Nestle	0.198	A	5	0.088	A	4	0.198	A	4
6	TTL	0.177	A	8	0.065	A	11	0.180	A	8
7	Uflex	0.167	A	11	0.068	A	10	0.182	A	7
8	BIL	0.124	B	17	0.035	B	19	0.140	B	15
9	KSOL	0.241	A	4	0.082	A	5	0.225	A	1
10	Dabur	0.165	A	12	0.060	B	13	0.099	B	20
11	Glaxo	0.119	B	18	0.050	B	16	0.121	B	18
12	GAEL	0.132	A	16	0.062	B	12	0.172	A	9
13	GRSL	0.103	B	20	0.03	B	20	0.117	B	19
14	Godfrey	0.265	A	1	0.090	A	3	0.170	A	10
15	Colgate	0.262	A	2	0.092	A	2	0.201	A	3
16	Cadbury	0.182	A	7	0.072	A	8	0.162	A	11
17	Marico	0.175	A	9	0.078	A	7	0.160	B	12
18	VST	0.153	A	13	0.042	B	17	0.147	B	14
19	ATFL	0.251	A	3	0.098	A	1	0.192	A	5
20	P & G	0.111	B	19	0.040	B	18	0.152	B	13
Indian FMCG Industry Average		0.152			0.066			0.161		
'A' denotes 'LR/CSR/CPR above the Indian FMCG Industry Average' and 'B' denotes 'LR/CSR/CPR below the Indian FMCG Industry Average'										
Kendall's coefficient of concordance among the selected company specific components of business risk (W) is 0.836 and chi-square ($\chi 2$) value of W is 47.652 being significant at 0.01 level.										

urcSource: Compiled and computed from 'Capitaline Corporate Database' of Capitaline Market Publishers (I) Ltd., Mumbai.

TABLE III

Analysis of correlation between Business Risk and its company-specific components of the selected companies in Indian FMCG Industry

Correlation Coefficient between / Correlation Measure	Business Risk and Liquidity Risk	Business Risk and Cost structure Risk	Business Risk and Capital Productivity Risk
Pearson	0.827**	0.767**	0.500*
Spearman	0.877**	0.869**	0.656**
Kendall	0.768**	0.726**	0.495**

***Significant at 5% level, **Significant at 1% level**
Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers (I) Ltd., Mumbai.

3. In Table 4.1 risk-return status of the selected companies in Indian FMCG industry was ascertained with reference to BR and overall profitability. The return on capital employed (ROCE) was taken as the overall profitability indicator in this analysis. Table 4.1 discloses that only Nestle and Colgate were the two companies among the selected ones which maintained a high risk-high return combination whereas ATFL was placed in the most undesirable category i.e. high risk-low return class. BIL, Glaxo, GAEL, GRSL, VST and P & G maintained a combination of low risk and moderate return whereas Ruchi, TTL and Uflex found place in the moderate risk-low return class. The cell indicating high risk and moderate return was occupied by Godfrey while a blend of moderate risk and high return was maintained by HUL, Dabur and Marico. Nirma was placed in the category of low risk- low return. A balance between risk and return was maintained by ITC, KSOL and Cadbury by capturing moderate risk-moderate return cell.

TABLE IV (4.1)

Risk-return Status of the selected companies in Indian FMCG Industry based on the combination of Business Risk and Overall Profitability

ROCE / BR	High (≥ 40%)	Moderate (>20% but<40%)	Low (≤ 20%)
High (≥ 0.20)	Nestle, Colgate	Godfrey	ATFL
Moderate (>0.14 but<0.20)	HUL, Marico	ITC, KSOL, Cadbury	Ruchi, TTL, Uflex
Low (≤ 0.14)	-	BIL, Glaxo, GAEL, GRSL,VST,P&G	Nirma
Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers (I) Ltd., Mumbai.			

4. In Table 4.2 risk-return profile of the selected companies was assessed on the basis of LR and ROCE. It is observed from the table that Colgate was the only company among the selected ones which maintained a high risk-high return blend whereas Nirma was the only company which found place in the low risk-low return class. HUL, Nestle, Dabur and Marico maintained a moderate risk-high return combination whereas KSOL and Godfrey were placed in the cell indicating a blend of high risk and moderate return. BIL, Glaxo, GAEL, GRSL and P & G found place in the low risk- moderate return category while the reverse combination i.e. moderate risk-low return blend was maintained by Ruchi, TTL and Uflex. ITC, Cadbury and VST maintained a balance between risk and return by placing themselves in the moderate risk-moderate return cell. ATFL was placed in the most undesirable class i.e. high risk-low return class.

TABLE 4.2

Risk-return Status of the selected companies in Indian FMCG Industry based on the combination of Liquidity Risk and Overall Profitability

ROCE / LR	High (≥ 40%)	Moderate (>20% but<40%)	Low (≤ 20%)
High (≥ 0.20)	Colgate	KSOL, Godfrey	ATFL

Moderate (>0.14 but<0.20)	HUL, Marico, Dabur, Nestle	ITC, Cadbury, VST	Ruchi, TTL, Uflex
Low (≤ 0.14)	-	BIL, Glaxo, GAEL, GRSL, P&G	Nirma
Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers (I) Ltd., Mumbai.			

5. In Table 4.3 an assessment of risk-return status of the selected companies was made by taking into account the combination of CSR and ROCE. This table depicts that HUL, Nestle, Dabur, Marico and Colgate were placed in the cell representing a blend of high risk and high return whereas TTL, Uflex, and ATFL found place in the most undesirable class i.e. high risk-low return class. ITC, KSOL, GAEL, Godfrey and Cadbury maintained a combination of high risk and moderate return. A blend of low risk and moderate return was adopted by BIL, GRSL and P & G while Ruchi and Nirma maintained the reverse combination i.e. moderate risk-low return combination. Glaxo and VST maintained a balance between risk and return by capturing the moderate risk-moderate return cell.

TABLE 4.3

Risk-return Status of the selected companies in Indian FMCG Industry based on the combination of Cost Structure Risk and Overall Profitability

ROCE / CSR	**High (≥ 40%)**	**Moderate (>20% but<40%)**	**Low (≤ 20%)**
High (≥ 0.060)	Colgate, HUL, Marico, Dabur, Nestle	KSOL, Godfrey, ITC, GAEL, Cadbury	ATFL, TTL, Uflex
Moderate (>0.040 but<0.060)	-	Glaxo, VST	Ruchi, Nirma
Low (≤ 0.040)	-	BIL, GRSL, P&G	-
Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers (I) Ltd., Mumbai.			

6. In Table 4.4 risk-return status of the selected companies was measured with reference to CPR and ROCE. This table discloses that HUL, Nestle and Colgate were placed in the high risk-high return class

whereas Ruchi and Nirma maintained a combination of low risk and low return. While ITC and KSOL found place in the high risk-moderate return cell, Marico was the only company among the selected ones which was placed in the class indicating the reverse blend i.e. moderate risk-high return combination. BIL, Glaxo and GRSL maintained a combination of low risk and moderate return whereas the reverse combination i.e. moderate risk-low return blend was maintained by TTL and Uflex. Dabur was the only company which was placed in the most desirable class i.e. low risk-high return category whereas ATFL found place in the most undesirable class i.e. the class indicating combination of high risk-low return GAEL, Godfrey, Cadbury, VST and P & G maintained a balance between risk and return by occupying the cell representing moderate risk and moderate return.

TABLE 4.4

Risk-return Status of the selected companies in Indian FMCG Industry based on the combination of Capital Productivity Risk and Overall Profitability

ROCE / CPR	High (≥ 40%)	Moderate (>20% but<40%)	Low (≤ 20%)
High (≥ 0.19)	Colgate, HUL, Nestle	KSOL, ITC	ATFL
Moderate (>0.14 but<0.19)	Marico	VST, GAEL, Godfrey, Cadbury, P&G	TTL, Uflex
Low (≤ 0.14)	Dabur	BIL, GRSL, Glaxo	Ruchi, Nirma

Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers (I) Ltd., Mumbai.

7. In Table 5 an attempt was made to assess the degree of relationship between business risk and overall profitability and that between each of the company-specific components of business risk and overall profitability of the selected companies by using correlation measures, namely Pearson's simple correlation, Spearman's correlation and Kendall's coefficient of correlation. In order to test whether these coefficients are statistically significant or not t-test was used. This table shows that all the three correlation coefficient between BR and ROCE were positive, out of which one coefficient was found to be statistically significant at 0.05 levels. All the nine correlation coefficients between ROCE and the selected company-specific components of BR were positive but were not found to be statistically significant even at 0.05

levels. Thus, out of the twelve correlation coefficients (as shown in Table 6) only one was positive as well as found to be statistically significant. So, the study made in Table 6 fails to provide strong evidence of positive relationship between BR or its company-specific components and return. The net outcome derived from the analysis, therefore, mismatches with the theoretical argument that the higher the instability in operating profitability, the higher is the risk premium.

TABLE V

Analysis of correlation between Risk and Return of the selected companies in Indian FMCG Industry

Correlation Coefficient between / Correlation Measure	Business Risk and Return	Liquidity Risk and Return	Cost Structure Risk and Return	Capital Productivity Risk and Return
Pearson	0.507*	0.265	0.372	0.259
Spearman	0.230	0.174	0.236	0.243
Kendall	0.174	0.100	0.164	0.121

*Significant at 5% level

Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers (I) Ltd., Mumbai.

VIII. CONCLUDING OBSERVATIONS

1. The highest volatility in operating profitability was observed in Colgate while Godfrey enjoyed the least risk associated with its overall business operation during the study period. 60 percent of the selected FMCG companies maintained their BR at the level below the Indian FMCG industry average whereas the remaining 40 percent of the selected ones kept it at the level above the industry mean in the same period.

2. 30 percent, 45 percent and 45 percent of the selected FMCG companies maintained their LR, CSR and CPR respectively at the level below the Indian FMCG industry averages while the remaining 70 percent, 55 percent and 55 percent kept them at the levels above the industry average during the period under study.

3. Godfrey faced the highest risk in respect of liquidity while the third and tenth ranks were occupied by it in respect of CSR and CPR respectively during the study period. However, Colgate occupied the second rank in respect of both LR and CSR and third rank in respect of CPR in the same period. Similarly, ATFL bore the maximum risk on cost

structure front and in respect of LR and CPR the company was placed on the front-benches by occupying the third and fifth ranks respectively. KSOL occupied the first, fourth and fifth ranks in respect of CPR, LR and CSR respectively. Nirma captured the fifteenth, fourteenth and seventeenth ranks in respect of LR, CSR and CPR respectively. GRSL was placed on the back-benches by occupying the twentieth rank in respect of both LR and CSR and ninetieth rank in respect of CPR. This kind of parity was observed in most of the companies understudy. So, uniformity among LR, CSR and CPR of the selected companies was noticed during the study period. The outcome of the analysis of Kendall's coefficient of concordance made this study provides evidence for the correctness of the above inference.

4. The analysis of correlation between BR and each of its company-specific components reveals that LR, CSR and CPR established themselves as significant contributors of the BR associated with the selected companies during the period under study.

5. The uniformity in respect of risk-return trade off among the selected FMCG companies was not at all present during the study period. Rather in many cases various peculiar blends of risk and return were observed. ATFL, bearing the high risk on the cost structure, liquidity and capital productivity front and yielding low return, faced a severe crisis in respect of controlling costs, payment of short term debt and generation of sales revenue during the study period. Therefore, the company should adopt appropriate measures to exercise control over its costs, liquidity and capital productivity for maintaining its company-risk within a reasonable limit. Nestle and Colgate established themselves as aggressive risk-taker as Colgate in all the cases and Nestle in almost all the cases were placed in the high risk-high return category. Although the levels kept by HUL, Dabur and Marico in respect of BR and its company-specific components fluctuated widely from low to high, they proved themselves as profit-hunter during the period under study. As BIL, Glaxo, GRSL and P& G found place in the low risk-moderate return category in almost all the cases, they were considered as risk averse but were not aggressive in generating operating surplus. High instability in cost behaviour pattern and moderate volatility in the operating profitability, short term debt paying capability and revenue generating capability of TTL and Uflex were not at all well compensated as they could not find place high or moderate return strata. Nirma was the only company among the selected ones which averse as well as

reluctant to generate high return as it maintained a blend of low risk and low return during the study period.

6. Although a high degree of positive relationship between BR or its company-specific components and return is theoretically desirable, the analysis of interrelation between them made in this study by using three different correlation measures fails to provide strong evidence of positive relationship between them in almost all the cases. It reflects that high risk was not at all compensated by high risk premium i.e. high return in the selected FMCG companies during the study period.

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Antecedents and Measurement of Store Loyalty Behavior of Urban Shoppers in India

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Abstract

The study of consumer store choice or patronage behavior has been an important area of research in retailing for many decades. Store loyalty is the most initial variable of interest to retailers. This paper attempts to identify the dimensions of store loyalty with specific focus on its antecedents such as Trust, Value for Money and Satisfaction. The results of this study provide retailers with useful information about Indian customers' store loyalty determinants. Study results should be useful for retailers in Indian market when developing marketing strategies, when considering how they can best position their stores and which store loyalty determinants marketer needs to improve, in order to maintain customer loyalty.

Key Words: *Trust, Value for Money, Satisfaction, Store Choice, Indian Customer, Store Loyalty*

I. INTRODUCTION

The projection for the retail industry in India shows high growth potential on grounds of policy reforms, rising disposable incomes and booming consumerism, anticipated strong GDP growth and the introduction of latest technologies in the country. Foreign direct investment (FDI) in the multi-brand retail segment is expected to bring in big ticket investments and open up vast opportunities for consumers, the farmers and the industry. Domestic enterprises have already ventured in the field of multi-brand retailing in the past few years. Although the consumers have gained from these enterprises, concerns have been expressed by various quarters on the benefit to the farmers. This has been attributed to the Government's as well as the domestic players' failure to create the necessary back-end infrastructure which could ensure a seamless flow of goods from the farm gate to the end consumers. FDI in retail is now expected to change the scenario and create a win-win state of affairs for the enterprise, farmers, suppliers, consumers as well as the country's economy. It is likely to bring in adequate infrastructure creation, efficient management of the supply

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chain, controlled food inflation, better quality products and at the same time create abundant job opportunities directly as well as indirectly.

Even with a decelerating economic growth and a depreciating rupee, there was a stable growth in the retailing industry in 2013. Substantial effort to rein in rising prices resulted in single digit inflation and the value sales of independent grocers and other retailers received a strong thrust which helped ensure that all categories witnessed growth throughout the year. In addition, important factors driving retail growth in India included expanding urbanization, a greater diversity in new stores coming into the picture, and global brands entering the Indian market. Indian retail is dominated by astoundingly large number of small retailers consisting of local kirana shops, dairy shops, green grocers, hand carts; pavement vends etc. which together make up the unorganized retail or traditional retail. According to the global firms AC Nielsen and KSA Techno pack, India has the highest shop density in the world having about 14 million outlets. The value sales of these traditional stores accounted for more than 90% of the sales in the year 2011. The unorganized sector is expected to get bigger due to its proximity, goodwill, credit sales, bargaining, loose items, convenient timings and home delivery. Although the last few years has witnessed the entry of a number of organized retailers opening stores in various modern formats in metros and other important cities, the overall share of organized retailing in total retail business has continued to stay low. The retail market in India is one of the fastest growing markets in the world, with 1.2 billion people engaged directly and indirectly. The traditional grocery retail is not only the largest contributor to the total grocery retailing in India, it also accounts for nearly 10% of the total employment in the country. The retail market in India is one of the fastest growing markets in the world, with 1.2 billion people engaged directly and indirectly. In fact this became a major concern for the Indian government while deciding over the opening of FDI gates for India. The possibility of a monopolistic market, exploitation of farmers and loss of consumer base to global retail chains were other major areas of worry.

II. LITERATURE REVIEW

Business cannot survive in the long term without establishing a loyal customer following. Special issues of important journals such as International Journal of Research in Marketing (1997) and Journal of the Academy of Marketing Science (2000) have long been devoted to the subject of customer loyalty in addition to several scholarly papers, which

points towards the rising interest in this field in the last two decades. But loyalty has remained somewhat of an enigma as a clear definition of what a loyal customer actually means is yet to emerge due to a very dynamic environment, and not much progress has been made in determining what factors lead to customer loyalty even though it is considered the life of business. Dick and Basu (1994) define loyalty as "the strength of the relationship between an individual's relative attitude and repeat patronage." Loyalty not only means repeat purchases, it also brings about an enhanced resistance to competitive messages, lower selling costs, a decrease in price sensitivity, and an increase in favorable word-of-mouth (Dick and Basu, 1994). In order to meet customer demands which may be diverse in nature, business organizations need to go for different types of loyalty building. While carrying out research for the SOK group, Sopanen (1996) found there are six different kinds of loyalty: Monopoly loyalty (which means there are no other choice available), Inertia loyalty (which means customers do not want to find out the substitutes actively), Convenience loyalty (which means loyalty is solely defined by location), Price loyalty (which means the low price of products influence customers), Incentivized loyalty (which means loyalty relates to the benefits gained from reward cards and programs), and Emotional loyalty (which means some particular factors influence customers such as brand). Oliver (1999) and Lindquist and Sirgy (2004) conceptualized a framework as per which loyalty should be developed in a sequence of "cognition-affect-conation-action" pattern which can be explained with the help of consumer behavior theories. Companies can ensure a consistent revenue stream and reduced expenses by way of acquiring loyal customers. It was found that a 5% improvement in customer retention leads to 25% to 75% increase in profits (Reichheld and Sasser, 1990). What is highly noteworthy is that a firm needs to spend more than five times as much to obtain a new customer than to retain an existing one (Wills, 2009). In addition, companies can boost profit margin with loyal customers. For instance, loyal customers are less price sensitive (Reichheld and Teal, 1996). Furthermore, loyal customers are likely to purchase more frequently, try the firms' other products, and bring new customers to the firm (Reichheld and Sasser, 1990). Thus it is very apparent from the above that loyalty can be linked to the success and profitability of a firm (Eakuru and Mat, 2008).

There has been a transformation in consumer's preference and behavior. There is now a hitherto unheard urge to try both new products and new brands, noticeable in a sweeping preference of brand variety and novelty over brand loyalty. It is being witnessed in recent times that

today's consumers have the desire to try out as many possibilities as they do not want to miss out on anything. Undoubtedly, this has negative effect on brand loyalty. Venkateswaran (2003) found that new brands, variety and non-satisfaction are foremost grounds for brand switching. Switchers are mainly influenced by brand name in buying decisions, followed by quality and price. Quality, promotion, store amenities and service are factors identified attributable to brand loyalty while price consciousness is still a driving force. Retailers today are facing increasingly tough competition and struggling to retain their existing customers and acquire new customers. Due to the availability of many options customers are switching to competitors if they are not satisfied. Better retail service induces customer satisfaction, which in turn results in customer loyalty, positive word of mouth, product repurchase and customer retention. In order to survive, the retailers are working on supply chain and operations efficiencies along with the critically important sales and marketing effort. Maintaining service quality and customer relationship management has become the most important challenge in Retail Marketing (Sathyapriya, Nagabhusana, Nanda, 2012). Verma and Verma (2013) suggest retail outlets should send cards on occasions such as birthday, anniversary, festivals etc. Customers will have the feeling of personalized concern about them as shown by the retail outlets. However, it is also very important that employees of retail outlets should be trained to handle customer complaints effectively and respond quickly. Most of the firms have started designing CRM strategies keeping in mind 80:20 Pareto principle, which says small proportion of customers give disproportionate amount of profitable business. Retailers are offering better retail services to these profitable customers who are loyal, regular and affluent. Some of the customers may not be directly contributing to the business to the extent other profitable customers are contributing, but they may be more influential by their word of mouth.

III. OBJECTIVES OF THE STUDY

The concept of store loyalty has received substantial attention from the academicians and the retail professionals since a bandwagon of loyal customers generate continuous revenues for the retailers. The contended loyal customers are likely to spread positive word of mouth which helps bring in additional customers. They are also likely to favor a particular store in their repeat purchase behavior across all product categories.

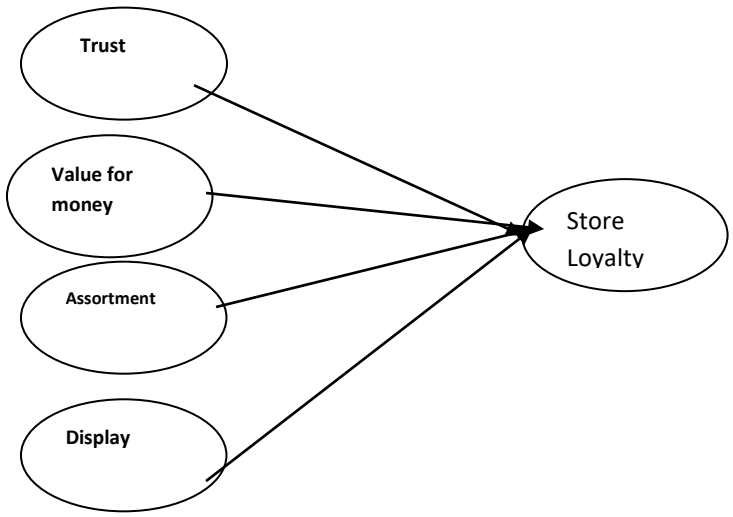
Keeping in mind the importance of Store Loyalty Behavior of customers both in the organized as well as the unorganized sector, the study aims at fulfilling the following objectives:

1. To develop scales for measuring store loyalty behavior and other relevant constructs
2. To establish reliability as well as validity of the scales employed in the study
3. To relate antecedents of store choice with store loyalty behavior of shoppers
4. To examine the perceived difference between store loyalty and other variables in the context of organized and unorganized stores
5. To integrate the above findings and suggest appropriate retail strategy for the benefit of retail practitioners

IV. HYPOTHESES

The dependent variable in the study is retail store loyalty of shoppers while the explanatory variables are store trust, value for money, assortment and proper display of items which reduces consumer search. These antecedents have been derived through focused group interview and reviewing past literature. The relationship can be presented in a diagrammatic form as shown in figure I.

Figure I



Trust of the store perceived by shoppers is expected to be positively related to store loyalty. Researchers in their retail study on different occasions have experienced that trust leads to satisfaction which in turn affects store loyalty positively (Delgado-Ballester and Munuera-Aleman 2001). Harris and Goode (2004), in their work have observed that trust be considered as an independent factor in influencing store loyalty behavior of shoppers. Hence it can be hypothesized that:

H_1: Perceived Trust of Shoppers is positively related to Store Loyalty

Werth (2004) inferred that prices may be regarded as indicator of value for money, especially when the product in question is either of minor importance for the shopper or he is unfamiliar with it. Also, the easy identification of quality and value for money aspects with respect to the store brands by rationalization would help the shoppers in sound decision making in buying the store brands with high levels of confidence (Kumar and Reddy, 2013). In view of this, it is expected that the shoppers' store loyalty is likely to be influenced by their notion about the intrinsic value which they expect to derive by putting their money at stake. IN line with this argument it may be hypothesized that:

H_2: Value for money and store loyalty are directly related to each other

On-shelf availability, i.e. providing items as desired by shoppers, is the key function of retailing that lies at the heart of retail which enhances the shoppers' confidence in terms of getting all the items under one roof thereby boosting their store loyalty (Helm and Stolzle, 2009). Therefore, the third hypothesis may be postulated as:

H_3: Higher the assortment, higher is the store loyalty

Retailers display extensive product lines and new variety of products in their stores keep differential prices as retail competition suggest that product heterogeneity is critical to retail price to gain competitive advantage over others by displaying a variety of products in an attractive fashion for benefit of their customers (Timothy and Stephen, 2006). Therefore a hypothesis may be framed as:

H_4: More attractive the display, better is the store loyalty

V. METHODOLOGY

The research intends to quantify the effectiveness of various store attributes and dimensions generating store loyalty, and covers both the organized and unorganized sectors. Thus, it is a comparative study and an attempt to understand behavior of shoppers with regard to these two sectors. The research also makes an attempt to describe the attitudinal behavior of the respondents for their respective purchasing patterns.

After identifying the relevant attributes and dimensions of store loyalty and purification of the measurement items, the data for the study were derived from shoppers belonging to a cross section of population using a convenience sample of respondents. This was done using a survey with the help of a structured questionnaire for shoppers. Owing to constraints of time and other resources, it was virtually impossible to adopt the random sampling technique. Instead the study covered a cross section of respondents based on a convenience sampling technique due to obvious reasons, the foremost amongst which is that the respondents in general are reluctant to provide response on lengthy multiple choice questionnaires. Other reasons include logistical constraints of deploying manpower in various cities and towns across India to contact the respondents and collect the data, monetary resources needed to persuade the respondents to cooperate, time constraint for collection of data, and so on.

The data were collected from the four metros, New Delhi, Mumbai, Kolkata and Chennai. In addition, some tier I, II and III cities belonging to various regions of the country were also included to make the study more representative and to lend it a pan-Indian character viz. Bangalore, Hyderabad, Pune, Ahmedabad, Bhubaneswar, Ranchi, Guwahati, Jodhpur, Siliguri, and Darjeeling. The study administered questionnaires to 1600 respondents across the various locations. Out of 454 responses obtained through internet, direct mail and personally questionnaire, 43 responses were rejected due to errors of omission and commission bringing down the total figure of valid responses to 411. In addition to meeting the respondents and directly administering the questionnaire either personally or through qualified representatives, it was also emailed to them. Further, in many cases the questionnaires have also been sent through post attaching stamped self-addressed envelopes. It took almost one year, the period beginning March 2013 to January

2014, to gather all the responses as in many cases reminders had to be sent to generate responses. 152 valid responses have been gathered though direct administration and the corresponding figures for email and post are 216 and 43 respectively. Scale items were developed from reviewing prior literature and were further refined by conducting reliability and validity tests frequently applied in marketing and psychometric research conducted in this area.

In addition to employing factor analysis, multiple regression and other parametric statistical tools were employed depending on the nature of the data. A brief description of the profile of respondents is given in table I.

TABLE –I

Demographic Profile of Sample Respondents

Age Group:	Frequency	Percentages
Below 30 Years	59	14.4
31 to 40 Years	146	35.5
41 to 50 Years	139	33.8
Above 50 Years	67	16.3
Occupation:		
Executives	209	50.9
Non- Executives	106	25.8
Businessmen with:		
No of Employees 1 to	65	15.8
No of Employees 10 +	31	7.5
Education:		
Below Graduate	04	01.0
Graduate	108	26.3
Post-Graduate	299	72.7
Net Income:		
Less than ` 30,000	61	14.8
` 30,001 to ` 60,000	87	21.2
` 60,001 to ` 90,000	74	18.0
` 90,001 to ` 1,20,000	116	28.0
` 1,20,001 to ` 1,50,000	57	13.9
` 1,50,0001 +	16	03.9
Gender (Chief Wage Earner):		
Male	370	90.0
Female	41	10.0
Marital Status:		

Married	357	86.9
Single	54	13.1

The data mainly have been collected from respondents belonging to A1A2 class of the socil stratification scale as develped by Market Research Society of India (MRSI) which is mostly followed by the reserchers doing research with different social classes in India particularly by the marketing research practitioners as well as academicians.

VI. RESULTS AND DISCUSSIONS:

In order to establish the scale validity, factor analysis with varimax rotation is employed and the five factors emerged as distinct (Table-II). In order to establish scale reliability cronbach alpha vlaues have been computed and all the scales employed in our study exhibit quite higher degree of reliability ranging from .68 to .82 wich are within acceptable range. It is to be noted that a confirmatory analysis is conducted to replicate the fctor structure with forced five factor solution to avoid misloadings and split loadings as far as posible to establish scale dimensionality. The results of factor analysis are quite satisfactory considering the goodness of fit as revealed by the KMO and Bartlett's Test (Table-III) and the scree plot (Figure-II). The percentage of variance explained is also satisfactorily high explaining more than 70% variation in the original variable (Table-IV).

TABLE-II

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
TRUST1				.864	
TRUST2				.881	
TRUST3			.346	.695	.327
SLOYALTY1					.760
SLOYALTY2					.797
SLOYALTY3					.725
VALUE1	.346		.799		

VALUE2	.344		.833		
VALUE3		.343	.712	.314	
AVAIL1		.778			
AVAIL2		.845			
AVAIL3		.782			
DIS1	.767		.309		
DIS2	.867				
DIS3	.764				

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Forced Five Factor Solution

TABLE-III

KMO and Bartlett's Test

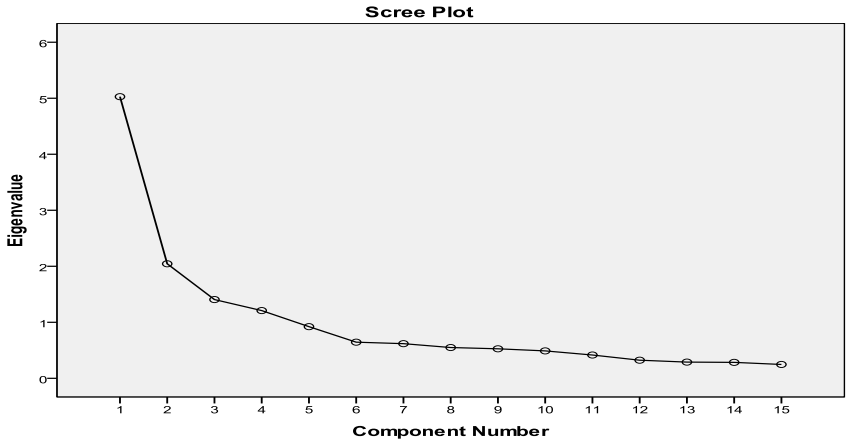
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.829
Bartlett's Test of Sphericity	Approx. Chi-Square	4885.109
	df	105
	Sig.	.000

TABLE-IV

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.028	33.519	33.519	2.194	14.628	14.628
2	2.045	13.631	47.150	2.179	14.525	29.153
3	1.406	9.373	56.523	2.159	14.390	43.543
4	1.209	8.061	64.585	2.131	14.207	57.751
5	.922	6.148	70.732	1.947	12.982	70.732
Extraction Method: Principal Component Analysis.						

Figure-II



The descriptive statisticsfor the five variables both for the organized and unorganized sectors are presented in Table V. The distribution of various constructs considered in our study have also been depicted for better understanding of the distribution pattern of respondents for the above-mentioned variables. The tables (V & VI) are self-explanatory and the differences of responses are tested with paired 't' Test to understand the discrepancies among the responses for the two categoroes of stores considered in our study

TABLE-V

Descriptive Statistics

		N	Mean	Std. Deviation	Std. Error	Mini mum	Maxi mum
Organized Sector							
Trust of Org	0 - 30	59	12.39	2.150	.280	8	17
	31 - 40	146	12.78	2.405	.199	7	18
	41 - 50	139	13.05	2.269	.192	5	18
	51 +	67	13.09	2.598	.317	6	18
	Total	411	12.87	2.361	.116	5	18
Value for money	0 - 30	59	12.08	2.254	.293	7	18
	31 - 40	146	12.41	2.060	.170	7	17
	41 - 50	139	12.59	2.252	.191	7	18
	51 +	67	12.49	2.501	.306	8	17
	Total	411	12.44	2.227	.110	7	18
Availability	0 - 30	59	10.92	2.002	.261	7	16
	31 - 40	146	11.37	2.244	.186	6	17
	41 - 50	139	11.83	1.925	.163	7	17
	51 +	67	11.48	2.218	.271	7	17
	Total	411	11.48	2.116	.104	6	17
Display	0 - 30	59	11.22	2.925	.381	6	18
	31 - 40	146	11.20	2.615	.216	6	18
	41 - 50	139	11.62	2.989	.254	6	18
	51 +	67	11.87	2.443	.298	6	16
	Total	411	11.45	2.768	.137	6	18
Store Loyalty	0 - 30	59	14.24	2.438	.317	9	18
	31 - 40	146	14.37	2.188	.181	9	18
	41 - 50	139	14.93	1.955	.166	10	18
	51 +	67	14.46	2.312	.282	10	18
	Total	411	14.55	2.181	.108	9	18
Unorganized Sector							
Unorg. Trust	0 - 30	59	11.86	1.889	.246	8	17
	31 - 40	146	12.34	1.888	.156	7	18
	41 - 50	139	12.55	2.263	.192	5	18
	51 +	67	12.70	2.412	.295	7	17
	Total	411	12.40	2.119	.105	5	18
Unorg. VM	0 - 30	59	9.63	1.990	.259	7	14

	31 - 40	146	9.83	1.802	.149	7	14
	41 - 50	139	9.80	1.794	.152	7	14
	51 +	67	10.58	1.986	.243	7	18
	Total	411	9.91	1.876	.093	7	18
Unorg. Availability	0 - 30	59	10.58	2.143	.279	7	16
	31 - 40	146	10.58	2.252	.186	7	17
	41 - 50	139	10.50	1.980	.168	7	16
	51 +	67	11.00	2.139	.261	7	16
	Total	411	10.62	2.128	.105	7	17
Unorg. Display	0 - 30	59	9.10	1.626	.212	6	14
	31 - 40	146	9.60	1.795	.149	6	15
	41 - 50	139	9.35	1.735	.147	6	17
	51 +	67	9.39	1.517	.185	6	15
	Total	411	9.41	1.710	.084	6	17
Unorg. StoreLoy	0 - 30	59	13.47	1.994	.260	10	17
	31 - 40	146	13.36	2.107	.174	9	18
	41 - 50	139	13.39	2.430	.206	9	18
	51 +	67	13.25	2.338	.286	10	18
	Total	411	13.37	2.237	.110	9	18

The descriptive statistics, mainly depicting the distribution of income for various categories of dependent variables as well as explanatory variables for both the retail sectors, are presented in Table V. The trust towards the stores from where the responents shop are more or less similar for both the sectors. One notable feature is that the perceived trust is marginally lower for the shoppers who are in the lower age category. One possible explanation is that these new generation consumers are more aggressive buyers and make and undertake an extensive search for brands that are priced at a reasonable level. The value for money differs considerably for all groups of buyers belonging to heterogeneous age categries. The general perception of consumers is that it makes sense to buy from organized retail to drive more utility compared to the price they pay. This is quite logical to expect since the organized retail try to generate loyalty by adopting various measures. Availability of assortment of prodducts are found to be nore in the organized sector simply due to the fact that their shelf-space is much higher than the small retailers who operate on a smaller scale. For the same reason, the display of merchandize is much attractive in large retail stores in the organized sector than their unorganized sector counterparts operating as small establishments. No significant dispersion is discerned between distribution of loyalty scores though it is observed that the younger generation are less loyal to the stores which may be attributed to

the fact that they like to shop around in search of their desired items in other places due to greater mobility.

The results of the paired 't' test reveal that all the variables are significantly different based on the 't' Statistic. The perception of respondents vary significantlt for all the vasriasbles under consideration. It can be infered from the esults of paired 't' Test that the two retail sectors are perceived as different on the five attributes being included in this study.

TABLE-VI

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	S.D	SE Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Trust of Org - Unorg. Trust	.465	2.803	.138	.193	.737	3.361	410	.001
Pair 2	Value for money - Unorg. VM	2.526	2.469	.122	2.286	2.765	20.741	410	.000
Pair 3	Availability - Unorg. Availability	.861	2.705	.133	.599	1.124	6.456	410	.000
Pair 4	Display - Unorg. Display	2.044	3.005	.148	1.752	2.335	13.790	410	.000
Pair 5	Ambience - Unorg. Ambience	1.350	3.060	.151	1.054	1.647	8.946	410	.000
Pair 6	Satisfaction - Unorg.Satisfaction	.226	2.058	.101	.027	.426	2.229	410	.026
Pair 7	Store Loyalty - Unorg. StoreLoy	1.187	2.821	.139	.914	1.461	8.533	410	.000

The results of multiple regression have been presented in table VII to XII. The findings of the regression analysis amply demonstrates that that the goodness of fit measured by R^2 is quite satisfactory as the 'F' value is significant beyond $p<0.000$. All the explanatory variables except value for money are highly significant. Trust, followed by Assortment, significantly influence the store loyalty construct. The collinearity statistic results are quite encouraging depicting almost insignificant correlation among the explanatory variables. It can be deduced that if there is no collinearity between x_i, x_j, variance influencing factor (VIF), which is expressed as $VIF=1/ (1-r^2_{i,j})$ will be 1. The collinearity diagnostics are very closer to 1.00 indicating absence of multi-collinearity. It may be stated that the inverse of the (VIF) is termed as tolerance. One may write $TOL_j=1/VIF_j= (1-R^2_j)$. Fortunately, there is almost nil multi-collinearity in the data used for predicting the store loyalty behavior once we incorporate the store type, a dummy variable, where the organized store represents (1);0: otherwise 0 (i.e. unorganized sector), the R^2 value improves marginally. One notable aspect which needs to be reported is that the display variable now becomes significant. The results of regression analysis incorporating the dummy variable designated as store type reduce the impact of value for money on store loyalty.

Since the data have been gathered both for the organized as well as the unorganized sector on the same set of variables, it is considered logical to categorize respondents into two groups based on location, empathy, fast service and store loyalty using binary logistic regression. The first dependent variable is measured using dichotomous variable; 1 representing the organized sector and 0 representing the unorganized counterpart.

As we know in logistic regression, logit (p) is the log (to base e) of the odd ratio or livelihood ratio that the dependent variable is 1. Symbolically,

Logit (p) = log [p/1-p] =ln [p/1-p]

The normal relationship of the logistic regression is,

Logit [p(x)] =log [p(x)/1-p(x)] $=b_0+b_1x_1+b_2$ x_{2+} b_3 x_3……

Instead of using a least square deviation criterion for the best fit, it uses a MLE method.

Although there is no close analogous statistic in logistic regression to R^2, the model summary (Table XIII) provides some approximations. Cox and Snail R^2 attempts to imitate multiple R^2 based on likelihood, but the maximum can be >1, making it difficult to interpret. The Nagelkerke modification ranges from 0 to 1 which is a measure of relationship. If H-L goodness of fit statistic is .0.05, one fails to reject the null hypothesis. H-L statistic has a significance of 0.839, which means it is not statistically significant, necessarily implying that the present model is a good fit.

TABLE-VII

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.468[a]	.219	.215	2.02573

a. Predictors: (Constant), DIS, TRUST, AVAIL, VALUE

TABLE-VIII

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	938.123	4	234.531	57.153	.000[a]
	Residual	3352.632	817	4.104		
	Total	4290.754	821			

a. Predictors: (Constant), DIS, TRUST, AVAIL, VALUE

b. Dependent Variable: SLOYALTY

TABLE-IX

Coefficients[a]

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
TRUST	.256	.033	.252	7.642	.000	.878	1.139
VALUE	.060	.034	.071	1.731	.084	.569	1.758
AVAIL	.218	.038	.207	5.735	.000	.736	1.359
DIS	.121	.030	.150	3.969	.000	.670	1.493

a. Dependent Variable: SLOYALTY

TABLE-X

Model Summary

Model	*R*	*R Square*	Adjusted R Square	Std. Error of the Estimate
1	.476[a]	.226	.222	2.01684

a. Predictors: (Constant), STORETYPE, TRUST, AVAIL, DIS, VALUE

Model Summary

Model	*R*	*R Square*	Adjusted R Square	Std. Error of the Estimate
1	.476[a]	.226	.222	2.01684

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
TRUST	.242	.034	.238	7.169	.000	.859	1.165
VALUE	.087	.036	.103	2.436	.015	.529	1.891
AVAIL	.217	.038	.206	5.732	.000	.736	1.359
DIS	.149	.032	.184	4.670	.000	.608	1.645
STORETYPE	-.477	.166	-.104	-2.868	.004	.717	1.396

a. Dependent Variable: SLOYALTY

TABLE XI
Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	4.193	8	.839

TABLE XII
ABOVA[b]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	971.570	5	194.314	47.771	.000[a]
Residual	3319.184	816	4.068		
Total	4290.754	821			

a. Predictors: (Constant), STORETYPE, TRUST, AVAIL, DIS, VALUE
b. Dependent Variable: SLOYALTY

TABLE XIII

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	530.370[a]	.523	.698

Step	Chi-square	df	Sig.

1	4.193	8	.839

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	530.370[a]	.523	.698

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Table XIV
Classification Table[a]

			Predicted		
			STORETYPE		
	Observed		0	1	Percentage Correct
Step 1	STORE TYPE	0	357	54	86.9
		1	47	364	88.6
	Overall Percentage				87.7

a. The cut value is .500

The binary logistic regression (Table X) could predict more than 87 percent of group membership based on the four values which is higher by any standard. The Exp (B) reveals that empathy is considered to be the most important variable in influencing store patronage (Table XVI).

Table XV
Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	LOCATION(1)	1.592	.271	34.469	1	.000	4.912	2.887	8.357
	EMPATHY(1)	3.514	.235	223.688	1	.000	33.592	21.195	53.241
	FASTSERVICE(1)	1.881	.236	63.498	1	.000	6.558	4.129	10.415
	SLOYALTY	.228	.051	20.265	1	.000	1.256	1.137	1.386
	Constant	-6.905	.801	74.333	1	.000	.001		

a. Variable(s) entered on step 1: LOCATION, EMPATHY, FASTSERVICE, SLOYALTY (1) stands for organized sector

Managerial Implications

It is not worthwhile for a research if it does not put forth useful suggestions for practical applications. The findings from the study show that the five factor solution explains more than 70% of the variance in

the consumer loyalty to retail store. Trust, in particular is the major influence of shoppers' loyalty to stores with the highest beta coefficient of 0.252. Value for money on the other hand has the lowest coefficient of 0.071, which does not influence the store loyalty significantly. In order to increase the chances of success it would be appropriate for retailers to target their marketing effort in providing greater value for money. The frequently run promotional offers with full page advertisements to lure shoppers towards their stores may be counterproductive in India where it is believed that the average Indian consumer is highly price-sensitive and looks for savings in term of money in his/her retail purchase (Sinha and Kar, 2007). Moreover, they are not gullible and can understand the basic objective of such campaigns. It can also be discerned that the buyers are more loyal to the unorganized retailers which is amply evident from the beta coefficient of -0.104. The beta values with regard to convenient location, empathy, fast service and loyalty reveals that organized sector is performing better than the organized sector. This jeopardized the interest of the small stores which individually cater to a small group of customers and do not have the advantage of economies of scale.

The findings of this study cannot be generalized because most of the data have been generated from the metros and large cities where the shopping patterns of consumers are substantially different from their counterparts residing in smaller cities and towns. The data mostly have been provided by the respondents from the upper-middle and upper social classes which represent a relatively small section of the population. People living at the bottom of the pyramid and B1B2, C and D categories of the population have a larger share of the total demand in the market. According to the various retail reports, 8% of the total market in India belongs to the organized retail sector and the remaining whopping 92% demand is catered by the small and medium retailers. The major limitation of the study is that, this segment has not been proportionately addressed. Future studies should make a serious attempt to include shoppers belonging to different classes using suitable sampling procedure.

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Does IFRS Reduce 'Home Bias' in Asset Management ?

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ABSTRACT

This paper examines the question-does adoption of IFRS reduce the home bias? Even after the proponents and skeptics are at loggerheads over the benefits of adoption of IFRS, this

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study advocates that the widespread adoption of IFRS (International Financial Reporting Standards) is unlikely to reduce the uncertainty about foreign financial reporting quality, familiarity bias, and geographical proximity bias that act as catalysts towards home bias.

Key Words: *IFRS, Economic network theory, Familiarity bias, Proximity Bias, Home Bias*

I. INTRODUCTION

The international capital asset pricing model, based on traditional portfolio theory developed by Sharpe (1964) and Linter (1965), posits that to maximize risk-adjusted returns investors should hold the 'world market portfolio' of risky assets, irrespective of their country of residence. In practice, however, the proportion of foreign assets in investors' portfolios tends to be very small. In the case of equities, foreign stocks make up a disproportionately small share of investors' equity holdings when one considers relative stock market capitalizations. Despite the well-documented gains from international diversification (Solnik, 1974; DeSantis and Gerard, 1997), the strong preference for domestic equities exhibited by investors in international markets remains an elusive empirical puzzle in financial economics. The pattern of integration of international financial markets offers opportunity for risk diversification by holding up the maxim "Don't put all your eggs in one basket". Investors could significantly reduce their risk exposure if they hold a fraction of their asset portfolio in foreign stocks that bear favorable risk to them. Surprisingly, investors do not exploit this risk sharing opportunity, instead they hold large share of their portfolio in domestic stocks. In the economic literature this phenomenon is dubbed as the "home bias puzzle". Even researchers show that gains from international portfolio diversification are significantly positive for all markets especially for the emerging ones (Roy, Ray and Roy, 2012).

Home bias behavior appears to be a grossly disturbing one from a diversification standpoint. Academics have offered a variety of explanations for this phenomenon. Initial explanations focused on barriers to international investment like, governmental restrictions on foreign and domestic capital flows, foreign taxes, and high transactions costs (Stulz, 1981). Although many of these obstacles to foreign investment have gradually diminished over time, the propensity to invest in one's home country still remains strong. Again, when capital crosses national boundaries, it faces the problems like exchange risk, variation in regulation towards control and convertibility of capital, cultural shocks

and sovereign risk, which, in general, are considered as the primary factors discouraging investment abroad. Furthermore, researchers argued that informational differences between foreign and domestic investors are the driving force behind the home bias. Investors, in general, have easier access to information about companies located nearer to them. They prefer local firms rather than distant ones for which they have a relative disadvantage in the context of information. More generally, investors have a preference for geographically proximate investments arising from a number of potential sources.

Advocates of International Financial Reporting Standards (IFRS) claim that if a country adopts the IFRS, it will help in bringing harmony between the numerous accounting standards in different countries, improving usefulness of financial statements, transparency in a global marketplace and also facilitate in removing the information asymmetry, thereby, encourage investors to hold international instruments in their portfolios. Given the effect that a global set of accounting standards could have on the information available to investors, it is possible that the global adoption of IFRS could mitigate investors' home bias (Bradshaw et. al., 2004).

The idea of adopting IFRS to develop international comparability of financial statements has become widespread with the advent of financial globalization. The adoption of IFRS by public firms around the world is one of the most significant financial accounting and reporting changes in the history of accounting. With the globalization of financial markets, more than 100 countries have agreed to require or allow adoption of IFRS, or have established timelines for the adoption of IFRS. In Europe, every publicly traded company in the European Union (EU) member state is required to apply IFRS when preparing the consolidated financial statements (IAS Plus (a). n. d.). In the U.S., the Securities and Exchange Commission (SEC) has allowed non-US firms to file financial statements in accordance with IFRS of the International Accounting Standard Board (IASB) without reconciliation (SEC, 2007). In Asia, countries with substantial economies, like, Japan, China, and India are either in the process of transitioning to IFRS or have already converged to IFRS (PwC, 2008). The US Securities and Exchange Commission (SEC) advocated that reporting under IFRS would promote international compatibility when foreign companies are allowed to access US capital markets (SEC, 2007). In the European Union, companies were asked to prepare their consolidated accounts in conformity with IFRS. The IFRS consists of approximately 40 standards and 25 interpretations. This standard is considered to be more principles-based

than US Generally Accepted Accounting Principles (GAAP). It relies less on detailed rules, and allow greater flexibility than US GAAP. At the same time, IFRS tends to be more restrictive in terms of measurement choices and requires more disclosures relative to most local accounting standards.

Proponents argue that adoption of IFRS may reduce information processing costs by making it less costly to analyze foreign financial statements and by increasing investors' perceived competence in foreign investment. However, skeptics argue that the adoption of IFRS is likely a process of pouring old wine in a new bottle. It generates no new information but simply repackages existing financial statement information and there is no rational basis for expecting a reduction in the home bias by simply adopting IFRS.

II. OBJECTIVE OF THE STUDY

Given the above backdrop, the present study examines the question-does the adoption of the International Financial Reporting Standards (IFRS) reduces 'home bias' in portfolio management? As the adoption of IFRS leads to an informational change, this paper attempts to a theoretic discussion on the impact of adoption of IFRS on information processing cost in relation to the home bias. The paper specifically attempts to find the answer to the question: 'what prompted the countries to adopt IFRS and what are the reasons for the home bias. The paper also theoretically examines the impact of the IFRS on the Home Bias and highlights the areas for further research.

III. ADOPTION OF IFRS

Why do countries adopt International Financial Reporting Standards? It is argued that switching to IFRS from GAAP will help companies, investors, and the general public to compare financial statements easier. The 'comparability argument' is founded on the assumption that IFRS reporting makes it less costly for investors to compare firms across markets and countries (Armstrong et al., 2007; Covrig et al., 2007). If every country has a different set of accounting standards, it is difficult to compare the financial position of each company because there is no consistency. Consistency is a key factor in comparing financial statements. Without one common set of global standards, it will be more difficult, if not impossible, to compare financial statements of the competitors. Such a comparison also involves the consumption of extra time and money. With an international accounting

standard in place it allows companies and competitors to be able to compare each other with a lesser amount of cost and energy. Consistency is not only important for comparability, but also for everyone to understand financial statements across the countries. Advocates of international financial reporting standards claim that the standards make financial statements easy to understand and interpret. Adopting and reporting under IFRS, a company's position strengthens in negotiations with credit institutions which ultimately reduce the cost of borrowing, because IFRS has a positive effect on credit ratings (Albrecht, 2008). IFRS will also make it easier for companies to initiate joint-ventureship, implement cross-border acquisitions and mergers, and develop cooperation agreements with foreign entities (Pricewaterhouse, 2008). All these advantages will certainly assist to improve a company's overall position in the global economy.

It is often argued that accounting standards setting is shaped by both economical and political considerations (Ball, 2006). It is also observed that, to improve the transparency in reporting and in framing and recommending standards, the International Accounting Standards Board (IASB) has to consider a variety of issues and interests of different parties including multinational corporations, audit firms, investment banks, international financial institutions, and various public authorities in Europe, China, U.S. and elsewhere (Veron, 2007). If transparency improves due to adoption of IFRS then, investors should have a better understanding about the actual economic and financial performance across a wide range of firms and be better able to compare the performance of firms domiciled in different countries. For instance, a common set of accounting standards could help investors to differentiate between the firms with sound or weak financial health, which in turn could reduce information asymmetries among investors, lower estimation risk and cost of capital. When adopted in several countries, common standards may also lower the cost in analyzing, monitoring and evaluating the performance of firms across countries (Ball, 2006). Thus, global movement towards adoption of IFRS in reporting may then augment cross-border investment and integration of capital markets (Covrig et al., 2007). Making foreign investment easier could also improve the liquidity of the capital markets and enlarge firms' investor base, which in turn could improve risk-sharing and lower the cost of capital (Merton, 1987). It is likely that this has a positive effect on both the investors' ability to interpret financial statements and their willingness to buy stocks across the countries and reduce the 'home bias' phenomenon that most investors are prone to (Cooper and Kaplanis,

1994). Such positive effects are likely to be more significant in emerging and relatively small economies. The adoption of IFRS will enhance the effectiveness of competition for international funds amongst the countries and make international capital markets more efficient, leading to a lower cost of capital for firms. In terms of transparency IFRS reduce the amount of reporting discretion relative to many local GAAP and, in particular, push listed firms in financial markets to improve their financial reporting. The study of Ewert and Wagenhofer (2005) show that tightening the accounting standards can reduce the level of earnings management and improve reporting quality. These expected benefits are based on the premise that mandating the use of IFRS increases transparency and improves the quality of financial reporting.

The decision to adopt IFRS by a country may be analysed as a decision to adopt a product with network effects. Economic network theory posits that in addition to network benefits (synchronisation value), a product with network effects can be adopted due to its direct benefits (autarky value) (Ramanna and Sletten, 2009). Network theory explains the inter-temporal increase in the adoption of IFRS across countries. A standard like IFRS is likely to be more appealing to a country if other countries choose to adopt the standard as well. The economic theory of networks can help us here more to seek the answer to the issue: 'why countries choose to adopt IFRS?' Network theory suggests that there are generally two factors to consider in adopting network-dependent products: (i) the intrinsic value of the product and (ii) the value of the product's network (Katz and Shapiro, 1985). If IFRS is considered a network-dependent product, then a country's decision to adopt IFRS can be viewed through the autarky and synchronization values. The autarky value of IFRS is the direct value to the adopting country from using the IASB-developed accounting standards. The synchronization value is the value derived from adopting a body of accounting standards that is widely used by other countries. Evidences show that the likelihood of IFRS adoption for a given country is increasing with the number of IFRS adopters in its geographical region and with IFRS adoption among its trade partners (Ramanna and Sletten, 2009). The result is significant for at least two reasons: (i) it suggests countries internalise the network effects of IFRS in their adoption decisions; and (ii) it suggests that as possibility of getting the network benefits from IFRS are large, countries may adopt the international standards even if the direct economic benefits from such standards are inferior to those from locally developed standards. In the case of the IFRS adoption decision by a country, it can be argued that the direct

benefits are represented by both the net economic and net political value of IFRS over local standards (Ramanna and Sletten, 2009).

The actual benefits of mandatory adoption of new standards across countries are closely debated by the academics and practitioners. Some argue that the IFR standards introduce uncertainty in the evaluation of financial standards as the standards permit managers to exercise their own judgment when deciding what to report in their financial statements. This may lead to possible errors in statements which can cause shareholders, investors, and the general public not to have as much belief in the financial statements. With the uncertainty in financial statements, this may also prevent companies from possibly receiving loans from various financial institutions (Albrecht, 2008). Secondly, unlike GAAP, there isn't much enforcement with IFRS. This could cause a problem for fraudulent financial statements which leads back to uncertainty with those statements. Moreover, "…many countries that claim to be converting to international standards may never get to 100 percent compliance. Most reserve the right to carve out selectively or modify standards they do not consider in their national interest, an action that could lead to incomparability – one of the very issues that IFRS seeks to address" (American Institute of Certified Public Accountants, 2008).

Leuz (2003) has compared international and US standards and concluded that IFRS is a high quality set of accounting standards and is equivalent to US GAAP in terms of reducing information asymmetries and in terms of value relevance. Lang et al. (2006) note that despite the use of the same accounting standards, financial statements of cross-listed and US firms are not comparable and earnings management is more pervasive in non-US firms than in US-based companies. This raises the question, whether the widespread adoption of IFRS would actually reduce the tendency of the investors to invest more in domestic instruments.

Before delving into the crux of the problem as to how IFRS adoption can mitigate the home bias, it would be worthy to look into the question-why does home bias occur?

IV. REASONS FOR HOME BIAS

The domestic bias in international investment presents a major puzzle to financial economists. It is argued that the home bias and anomalies in capital markets arise due to informational differences. The bias towards local market investment has been explained by familiarity

bias. In the context of investment in capital markets, investors may on an average be better informed about the risk-return characteristics of domestic investible instruments than that of the foreign one. Foreign investments appear more risky and investors rationally bias their portfolios towards the less risky, as perceived by them, domestic assets. This does not imply that investor is better informed about domestic stock than any foreign investor. Superior information on firms earnings prospects is captured not only by the mere fact that domestic investors in general do have a better understanding of the nature of business of domestic firms, but also by the aspect that it is more difficult for foreigners to translate and interpret balance sheet information accurately. Malloy (2005), shows that the forecasts of the local analysts are more accurate and value relevant than the forecasts of foreign analysts. Bae et al. also (2008) show that analysts resident in a country make more precise earnings forecasts for firms in that country than non-resident analysts. Behavioral finance research suggests that investors tend to be more optimistic towards home markets than towards international markets (Huberman, 2001). The home bias can also be explained by investors' perception about their competence in interpreting financial statements of foreign companies. Graham et. al. (2009) finds a positive relation between an investor's perceived competence and the international diversification of his portfolio of investments. Due to perceived lack of competence in analyzing financial statement of foreign companies, the investors is likely to refrain from investing abroad that might lead to underinvestment in foreign stocks. Although information processing costs and competence effects are likely material for individual and retail investors contemplating foreign investments, but they are significant for institutional investors. Empirical researchers suggest that while individual (nonprofessional) investors lack investment expertise and have ill-defined valuation models (Maines and McDaniel, 2000), professional investors "have well-defined valuation models which, in turn, allow them to use directed information search strategies to acquire the inputs needed for their valuation models" (Frederickson and Miller, 2004, p. 673). This suggests that differences in financial statement presentation across companies from different countries are not likely to lead to significant information processing costs for institutional investors.

Explanations in the financial literature for the home bias can be categorised as (i) regulatory or political constraints. Constraints on flow of funds across countries, explicit limits to cross-border equity investments, exchange rate risk, purchasing power risk, taxes, and higher transaction costs are examples of regulatory and political constraints to

international equity diversification. (ii) Information costs. Investor perception of higher risk due to greater information asymmetry in foreign stocks is an example of information-based constraints to foreign investment.

There are three types of information frictions that generally pave the way for home bias: costs of information processing, uncertainty about financial reporting quality, and uncertainty about the distribution of future cash flows. Information processing costs refer to the costs of becoming familiar with the financial statements of foreign companies, interpreting the information, and being able to compare the financial statements across companies for investment decisions. When investors contemplate purchasing equity in a foreign company, they must glean from published accounts information that is based on accounting principles and disclosure requirements that may differ greatly from those in their home country. Moreover, the credibility of this information is determined to a large extent by the regulatory environment, which also varies considerably from country to country. Cross-country differences in accounting principles, disclosure requirements, and regulatory environments--which together can be grouped as investor protection regulations--give rise to information costs that must be borne by foreign investors. Information processing costs associated with investing in some countries may be significantly higher than the others. Research suggests that difficulty in interpreting financial statements using different accounting standards can act as an impediment to foreign investment that foreign ownership increases in companies that adopt international accounting standards (Covrig et al., 2007), and that US ownership increases in companies that adopt standards that conform more closely to US standards (Bradshaw et al., 2004). One interpretation of this evidence is that global adoption of uniform standards reduces information processing costs and underinvestment in foreign equity markets.

Information friction can also arise from investors' uncertainty about the quality of financial reporting in foreign countries. There is evidence suggesting that IFRS is a set of accounting standards of high quality (Leuz, 2003), and IFRS is likely to improve financial reporting quality for most countries (Ashbaugh and Pincus, 2001). This evidence suggests that investors are more likely to rely on the financial statements of foreign companies and increase foreign investment after global IFRS adoption. But on the contrary, research suggests that for any given set of accounting standards, there can be significant differences in financial

reporting outcomes depending on the quality of the investor protection and enforcement environment across countries (Lang et al., 2006) which in turn can act as a catalyst for the home bias.

The third type of information cost relates to investors' uncertainty about the distribution of future cash flows. Investors tend to favour foreign companies about which they are better informed and that produce a familiar output, have richer information sets, and whose country of origin is one with which investors have cultural ties (Dahlquist and Robertsson, 2001). Home bias could result from domestic investors having an information advantage over foreign investors about the distribution of companies' expected future cash flows. Furthermore, investors prefer to invest in companies that are geographically closer- a geographic proximity bias - because they are expected to have precise information as a result of greater access and more frequent interaction (Coval and Moskowitz, 1999).

In sum, it is evident that information processing costs is one of the major sources of the home bias. Hence, it is necessary to examine what role does the IFRS play in reducing home bias?

V. IFRS AND HOME BIAS

The expected benefits for mandating the use of IFRS are based on the premise that it increases transparency and improves the quality of financial reporting. However, accounting standards play only a limited role in determining observed reporting quality. The application of accounting standards involves considerable judgment and the use of private information. As a result, IFRS, like any other set of accounting standards, provide managers with substantial discretion. How far this discretion is used depends on firm-specific characteristics and national legal institutions (Ball et al., 2003).

The legal and shareholder protection environment of a country is as important as the accounting standards in determining the quality of financial reporting. A country's shareholder protection and regulatory environment affects information uncertainty and appears to be a factor in investors' decisions. Ahearne et al. (2004) show that when foreign companies list on US exchanges, US investors face lower information uncertainty and invest more. Their results suggest that the investor protection environment is an important determinant of investment choices. Differences in financial reporting outcomes depend on differences in investor protection and enforcement environments across

countries. Bradshaw and Miller (2008) compare compliance with US GAAP by foreign companies that voluntarily adopt US GAAP to compliance with US GAAP by a matched sample of US companies. The authors conclude that enforcement is a significant issue with respect to accounting standards.

Indeed, countries' institutional structures play an important role in explaining accounting quality after the adoption of IFRS. Strict enforcement regimes and sound institutional structures provide strong incentives for high-quality financial reports after the introduction of IFRS. In terms of implementation of accounting standards, research has examined cross-country variation in conservatism and earnings management. Ball et al. (2000) find differences in the timeliness of the reporting of losses and conservatism based on whether the company is from a common law or a code law country. They find that companies in common law countries recognize economic losses in income more quickly than companies in other countries. Their finding suggests that institutional structure greatly influences the financial reporting outcomes and institutional factors appear to be more important than the quality of the accounting standards in explaining the timeliness of companies reporting losses. Undeniably, the quality of accounting data and reports depends more on the conservative approach adopted by the recommending body to set the accounting standards. But, the studies in this context are not clearly converging to a single conclusion on the individual role of accounting standards and the institutional environments in determining the interpretive value and the quality of reports.

Leuz et al. (2003) find evidences that strong shareholder protection limits ability for insider trading which ultimately helps to reduce the incentives of management to mask firm performance. As noted by the American Accounting Association, "cross-country institutional differences will likely result in differences in the implementation of any single set of standards. Thus, IFRS may be a high-quality set of reporting standards (pre-implementation) but the resulting, published financial-statement information could be of low quality given inconsistent cross-border implementation practices" (Financial Reporting Policy Committee, 2007). These findings and arguments grossly suggest that even with global adoption of a uniform set of standards, information uncertainties across countries would still exist due to institutional differences.

Research has suggested that home bias could result from domestic investors having an information advantage over foreign investors about the distribution of companies' future cash flows. This argument suggests that domestic investors have an advantage of credible information available about domestic stocks than about foreign stocks. Bae et al. (2008) find that local analysts have significantly more accurate in forecasting earnings than foreign analysts. The authors attribute the local forecasting superiority to an information advantage related to proximity. Van Nieuwerburgh and Veldkamp (2008) argue that domestic investors can learn what foreigners know about foreign stocks. The authors conclude that a small information advantage in which there is a slight home bias in investment is amplified as the investor chooses to learn more about the assets that he holds until his capacity to learn is exhausted in home assets. Bhattacharya and Groznik (2008) also argue that the home bias may be associated with an information advantage in the form of familiarity with the country. The familiarity might lead to greater investment because of greater information or because of an emotional loyalty to the country. The study of Malloy (2005) has convincingly argued about a correlation between available information quality and geographical proximity in the context of involving 'investors and analysts'. Geographic proximity reduces information acquisition costs and provides access to even private information. Hence, geographically proximate analysts possess an information advantage over other analysts and that this advantage is associated with greater accuracy. Geographic proximity therefore allows investors not only to obtain private non-financial information but also to obtain information to evaluate the reliability of the financial statements and voluntary disclosures. To the extent that home bias is due to geographic proximity, the global adoption of IFRS is unlikely to reduce the magnitude of home bias.

Investors, in general, are more skeptic and face greater uncertainty about the quality of foreign financial statements. Common or retail investors popularly believe that foreign financial reporting is not as reliable and informative as domestic financial statements and even home bias might be related to a behavioral bias toward familiar stocks. Research (Kilka and Weber, 2000) suggests that investors tend to be more optimistic about familiar stocks than unfamiliar stocks and about home markets than international markets. French and Poterba (1991) imputed expected returns for US, Japanese and UK stocks and found that 'each investor is most optimistic about returns in his own country'. While one could argue that the optimism is based on superior

information, research suggests that the optimism is not easily explained by an information advantage. Huberman (2001) found that investors who demonstrate local bias have neither experienced superior returns, nor they traded more frequently. To the extent that underinvestment in foreign equities is due to a behavioral bias, global adoption of an uniform accounting standards is unlikely to reduce the home bias.

It is equally argued that global adoption of IFRS could change the volume of underinvestment in foreign equities by tuning investors' perceptions of foreign companies' future cash flows. If IFRS adoption generates no new information but simply repackages existing financial statement information, then there is no rational basis for expecting improved forecasts or a reduction in home bias. The study of Hutton et al., (2006) has shown that the format in which information is presented can affect the investment-related judgments of users of financial information and the financial reporting decisions of preparers of financial information. It is thus possible that the format of presentation under IFRS could lead investors to perceive a change in their ability to forecast cash flows.

Moreover, the 'reporting incentives' argument casts doubt on whether simply changing standards will make the reported numbers more comparable across firms or improve firms' reporting behavior. Firms that move towards greater transparency are unlikely to make material changes to their reporting policies (Ball, 2006). Even when the standards mandate superior accounting practices, it is not clear whether or not firms disclose figures that are genuinely more informative. Even with common standards, observed reporting behavior is expected to differ across firms as long as firms have different reporting incentives. Ball et al. (2003) observed that the incentives faced by managers and auditors in issuing financial statements have greater influence than accounting standards, in spite of their standards being derived from high-quality accounting standards like, the GAAP of US and UK. Hence, there is no reason to believe that simply adoption of IFRS would usher in the expected and advocated benefits. If IFRS adoption generates new information relative to the home-country accounting standards, IFRS adoption could reduce home bias if the standards improve investors' ability to forecast foreign companies' future cash flows. The effect of IFRS on the reduction in information costs is likely to be negligible relative to the effects of other determinants of home bias driven by investors' actual or perceived information advantage from geographical

bias than from information about future cash flows available in the financial statements.

VI. CONCLUSION

The present paper examines the impact of adoption of IFRS on the home bias. From the discussion in this paper, it may be concluded that the net effect of adopting IFRS on home bias is rather uncertain. The widespread adoption of IFRS is unlikely to reduce the uncertainty about foreign financial reporting quality, the behavioral bias towards familiar financial instruments, and investors' rational tendencies to invest in geographically proximate financial assets. The factors such as informational frictions faced by investors from differences in language, culture, operating environment, and financial reporting environments are likely to dominate information processing costs related to the accounting standards. Hence, reduction in information processing costs by global adoption of a single set of accounting standards is unlikely to significantly alleviate the home bias. In addition, it may also be argued that the extent to which firms benefit from increased disclosure remains a controversial issue. Even regional differences in economies need to be adequately reflected in a common set of standards. Thus, a single set of standards may not be able to accommodate the differences in national institutional features which may further cause divergent accounting systems.

However, there is no denying that the effect of the adoption of IFRS on investors' home bias is, at present, a virgin area for close research, especially the empirical one. Scholars may examine the impact of the relative importance of accounting standards and the strength of the investors' protection environment on home bias. In the areas of information processing costs, research needs to distinguish between investor preferences for familiar accounting standards and preferences for higher quality accounting standards especially, to what extent familiarity bias plays a role in investor preferences for particular standards. With respect to uncertainty about the quality of financial reporting, research is needed to assess what is meant by higher quality accounting standards and what attributes of accounting standards are desirable.

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Technology and Sickness: A Study of Small Engineering Enterprises in the district of Howrah, West Bengal

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ABSTRACT

In India, Small Enterprises (SEs) {formerly Small Scale Industries (SSIs)} are regarded as the most powerful organizations for socio-economic development. Among different states of India, West Bengal (WB), is notable for sickness of its engineering sector in the district of Howrah, the former Birmingham or Sheffield of the East. Howrah Small Engineering sector today has lost its glorious position in Indian economy due to reasons such as lack of adequate technical know-how of managerial personnel and the lack of application of updated and

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appropriate technology. The present paper primarily aims at detecting how far and to what extent the lack of technical knowledge of the managerial personnel is responsible for sickness in Small Engineering Enterprises of Howrah and suggesting some remedial measures for improvement of the prevailing situation.

Key Words: *SEs, Sick SEs, Small Engineering Enterprises, Technology, West Bengal, Howrah.*

I. INTRODUCTION

Small Enterprises (SEs) {formerly Small Scale Industries (SSIs)} may be regarded as the main contributors in socio-economic development of any developing country like India. As per the latest Census Report (All India Fourth Census Report, 2006-2007), SEs ensure alluring performance in production for ` 3,03,629.22 crore, export promotion for ` 27,561.86 crore and employment generation for 22,72,039 with nominal capital outlay. Besides, they are well capable of resolving the contemporaneous hazards of our nation – unemployment, poverty, economic and regional disparity, social unrest etc. Nevertheless, SEs have rigorously been experiencing hindrances from different corners, may be endogenous and/or exogenous. Moreover, the introduction of new economic reforms in 1991 has forced this sector to face a tremendous competition from the multinationals. Consequently, SEs have rapidly been slipped into sickness, the black hole of Indian economy. Sickness in SEs spreads its roots in every region of India, among which the eastern region, particularly the state of West Bengal (WB), is one of specially notable (17.59 percent of sick SEs, All India Fourth Census Report, 2006-2007) mainly for the degradation of the Engineering Enterprises of its district Howrah, the former Sheffield/Birmingham of the East. The Third Census Report of the Directorate of Cottage and Small Scale Industries (2001-2002), WB, reveals that the maximum number of sick SSIs belongs to the district of South 24 Parganas in West Bengal, followed by Howrah (15.62 percent), Kolkata (14.23 percent), Birbhum (9.95 percent) and East and West Midnapur (9.62 percent) etc. So far as the incipient sick SSIs are concerned, Howrah with 20.17 percent has been at the top and Kolkata, Birbhum, East and West Midnapur respectively come thereafter. The Census Report shows that SSIs of WB have been sickness-prone mainly due to Marketing Problems (48.20 percent), Lack of Demand (47.86 percent) and Shortage of Working Capital (WC) (47.18 percent). However, the lack of demand for the products may be due to its inferior

quality which in turn may be attributed to the lack of application of appropriate technology and quality of other inputs.

Now, in this context, the business enterprises have to produce and deliver better quality of goods and services at a competitive price in order to survive and grow in the present day competitive business environment. Technology may play a vital role in this regard. Considering the past glory and present dying condition of Small Engineering Enterprises of Howrah, the paper primarily aims at examining the technical qualification of the managerial personnel and to what extent the lack of technical knowledge and/or its improper application are responsible for sickness in the concerned enterprises.

II. SES IN INDIA AND CAUSES OF THEIR SICKNESS

The trendy structural concept of SEs in India has drastically been moved in 2006 when the first single comprehensive legislation – Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 has been introduced with (i) a new ministry – Ministry of Micro, Small and Medium Enterprises (MSMEs), (ii) several new nomenclatures like enterprises (formerly industries), micro (formerly tiny) etc, (iii) afresh definitional criterion of the enterprises on operation like manufacturing (on investment in Plant and Machineries) and rendering of services (on investment in Equipments) and (iv) several reframed principles, policies and regulations for the sector [Indian Legislation, MSMED Act, 2006, Notification No.S.O.1642(E), 29.9.06]. As per the new Act, SEs in their manufacturing concerns should have investment in Plant and Machineries within ` 25 lakh – ` 5 crore, while in their service rendering activities the investment limit should be within ` 10 lakh – ` 2 crore in equipment.

According to the Reserve Bank of India (RBI), Chakraborty Committee Report (2007), SEs may be said to have become sick, if any of their loan accounts remains under Non Performing Asset (NPA) for at least 3 months or if there is erosion in the net worth due to accumulated losses to the extent of 50 percent of its net worth, excepting the condition of willful mismanagement.

SEs may be treated to have reached the stage of incipient sickness, if any of the following events are found:

- There is delay in commencement of commercial production by more than six months for reasons beyond the control of the promotion which entails cost overrun.
- The unit incurs losses for two years or cash loss for one year, beyond the accepted time frame on account of change in economic and fiscal policies.
- The capacity utilisation is less than 50 percent of the projected level in terms of quantity or the sales are less than 50 percent of the projected level in terms of value during a year.

◙ Causes of Sickness in SEs in India

Based on different reports of RBI Working Committees and findings of various research studies, internal and external causes of sickness in SEs in India have been summariesed in below.

TABLE – I

CAUSES OF SICKNESS IN SES IN INDIA

CAUSES OF SICKNESS	INTERNAL CAUSES	EXTERNAL CAUSES
Relating to Project	(i) Faulty project selection and planning and delay in implementation of the project. (ii) Wrong selection of site. (iii) Inappropriate plant and machineries, improper installation. (iv) Under-estimation of capital cost. (v) Over-estimation of demand. (vi) Over-estimation of profit.	(i) Faulty project appraisal by commercial banks and other financial institutions. (ii) Delay in sanction / approvals pertaining to the project, by different government agencies concerned.

Relating to Finance	(i) Inadequate need based finance. (ii) Wrong estimation of financial requirement. (iii) Poor utilisation of current assets and under utilisation of installed capacity (iv) Inadequate mobilisation of finance. (v) Poor debt collection management. (vi) Block of fund due to over stock. (vii) Deficiency in formulating budget and budgetary control. (viii) Unplanned payment to creditors. (ix) Diversion of fund to other units. (x) Unplanned expansion/ diversification of funds. (xi) Unproductive expenditure. (xii) Large order book at fixed process in an inflationary market without price variation clause.	(i) Delayed disbursement of loans. (ii) Inadequate disbursement of loans. (iii) Delay in payment of bills by government departments and large industries. (iv) Credit restraint policy. (v)Unfavourable investment climate. (vi) Inflation.
Relating to Production	(i) Inadequate material control. (ii) Lack of production planning and control. (iii) Inadequate maintenance of plant and machineries. (iv) High material wastage. (v) Lack of quality control. (vi) Lack of emphasis on research and development. (vii) Obsolete plant, machineries and technology.	(i) Shortage of raw materials, power, fuel, water, transport and such other essential inputs. (ii) Import restrictions on essential inputs. (iii) Delayed supplies from subcontractors.
Relating to Marketing	(i) Inaccurate demand forecasting. (ii) Inappropriate and unscientific product marketing. (iii) Poor quality of products or product obsolescence. (iv) Don one buyer /very few buyers. (v) Irregular deliveries. (vi) Lack of market research. (vii) Inappropriate sales promotion. (viii) Poor public relation.	(i) Market recession and competition. (ii) Restraint on purchase by bulk purchase. (iii) Excessive taxation policy. (iv) Liberal licensing policy. (v) Change in international market scene.
Relating to Workforce	(i) Inefficiency in recruitment of proper workforce.	(i) Non – availability of skilled manpower.

Management	(ii) Lack of behavioural approach causing dissatisfaction among the personnel. (iii) Poor inter-relation. (iv) Low productivity of labour. (v) Absence of manpower planning. (vi) High cost of labour. (vii) Inappropriate wage and salary administration.	(ii) Inter-union rivalry. (iii) General labour unrest in the area. (iv) Wage disparity in similar industry.
Relating to Corporate Management	(i) Lack of professionalism in management. (ii) Improper corporate planning. (iii)Lack of coordination and control. (iv) Resistance to change. (v) Lack of integrity in top management. (vi) Unplanned expansion. (vii)Failure to treat employees as partners in progress.	----------
Source: Mathur, S.B. (1999); Krishnamurthis (2002); Desai, V (2006); RBI, Kohli Committee (2002); RBI, Chakraborty Committee (2007)		

Table 1 shows different factors, identified through several research studies that may cause sickness in SEs. But, technology and its proper application may also be considered as an important factor which contributes significantly towards survival and growth of any organization, large or medium or small, particularly in a competitive global business environment.

III. TECHNOLOGY IN SES IN INDIA

Need for technology in any organisation depends on its nature, size, type etc. However, now-a-days some requirements like computers with appropriate hardware and software programmes, internet facilities, skilled operating personnel etc. are the minimum ones. In this connection, Ministry of MSME with the authoritative institutions has announced different policies to upgrade technology in the very enterprises and channelised the same to the small entrepreneurs through different training programmes as mentioned below.

- Promotional Policies of Ministry of MSME in Technology Ministry of MSME with its Implementation Status of the Package for Promotion of Micro, Small Enterprises, 2007, has declared the schemes like (i) establishment of Training-cum-Product Development Centres

(TPDCs), (ii) strengthening of the existing Centre Footwear Training Institutes, (iii) promotion of Vertical Shaft Brick Kiln (VSBK) technology with one-time capital subsidy (limited to 30 percent of the cost or ` 2 lakh), (iv) promotion of energy efficiency in electrical pumps and motors manufacturing SEs, (v) assistance for introduction of the International Organisation for Standarisation (ISO) 9000 and 14001 Standards for SEs and covering of Hazard Analysis and Critical Control Points (HACCP). Besides, the Ministry is operating a scheme for technological upgradation for SEs called the Credit Linked Capital Subsidy Scheme (CLCSS) under which SEs can avail of 15 percent capital subsidy on institutional finance (not exceeding ` 1 crore) for induction of well established and improved technology in approved sub-sectors/products.

Development Organisation for Micro, Small and Medium Enterprises (DO-MSME) extends its support in the field of technology by means of State of the Art Tool Rooms and Training or Testing Centres.

- Promotional Policies of Micro, Small and Medium Enterprises – Development Institute (MSME-DI) in Technology: MSME-DI aims at (i) offering product-cum-process programme, modernisation programme through Computer Aided Design (CAD), Management Training and Technical Library Facilities, (ii) organising training on Information Technology through Computer Network and Total Quality Management (TQM), (iii) introducing Quality Upgadation Scheme through the Quality Management System (QMS) for obtaining the International Organisation for Standardisation (ISO) – 9000/14001 Certification (with an incentive of 75 percent of the amount of acquisition to a maximum of ` 75,000), (iv) providing consultancy services at 0.5 percent of the project cost subject to a maximum of ` 5,000 for the respective entrepreneurs, (v) ensuring required Tool Room Facilities in respective fields, (vi) assisting in the selection of appropriate and cost effective Mechanism, Tools and Techniques, (vii) conducting Cluster Studies, Seminar, Workshop, Awareness Programme, District Industrial Potential Surveys etc.

- Promotional Policies of National Small Industries Corporation (NSIC) Limited in Technology: NSIC Ltd. provides technical support to SEs through NSIC Technical Services Centres (TCS) and a number of extension and sub centres spread across the country. The range of technical services provided through these centres

include training in Hi-Tech as well as conventional trades, testing, common facilities, toolkits, energy audit, environment management etc.

- Promotional Policies of India SME Technology Services Ltd. (ISTSL): ISTSL provides a platform where SEs can tap opportunities at the global level for acquisition of new and emerging technology or establish business collaboration. It gives the user updated information on sources of technologies and means of accessing them. More, the information on technology-seeking enterprises is maintained here and made available to interested technology suppliers and collaborators. It extends professional support to tie up financial assistance and other requirements for transfer of technology and joint ventures. In addition, it arranges consultancy services, visits of overseas experts for in-plant counseling, coordinates buyer-seller meets for specific product process technologies and represents the business interests of SEs in international events.

Beside these institutions, District Industries Centre (DIC) assists SEs in preparing Project Report.

IV. METHODOLOGY, ANALYSIS AND FINDINGS OF THE STUDY

Under this section, the methodology followed by the present paper, the profile of the units surveyed in different modes and the detailed analysis of the study applying statistical tools and techniques have been discussed on the basis of which the findings of the present paper can be sketched.

Methodology of the study

- The present paper is predominantly a descriptive one, which aims at identifying the association between technical knowledge of the managerial personnel and sickness of SEs through an intensive investigation and careful analysis.
- Data of the present paper have been collected through primary survey, conducted during January 2011 to September 2012 among 232 small (sick) registered urban light engineering sample units, selected randomly from 318 of such units (population) as enlisted in District Industries Centre (DIC), Howrah and registered during 2000-2001 to

2009-2010. Sick units here have been identified as per RBI's Guidelines (p-4).

- Selection of sample for the primary survey has been made through simple random sampling method.
- The sample units have been visited personally and information have been collected through questionnaire.
- In questionnaire, a 5 point Rating Scale (1 = not responsible at all, 2 = not very responsible, 3 = somewhat responsible, 4 = responsible and 5 = highly responsible) has been used to detect the degree of responsibility of the causes of sickness under the area of Technology. Here, to detect the responsibility of the respective causes of sickness related to Technology more firmly, the responses of the surveyed sample units on the 5 point rating scale have been summarised in three categories as follows.
  (i) Not Responsible (1)
  (ii) Not Fully Responsible {Not Very Responsible (2) + Somewhat Responsible (3)}
  (iii) Fully Responsible {Responsible (4) + Highly Responsible (5)}
- The data obtained through primary survey have been tabulated and analysed using a non-parametric Chi-Square (χ^2) test using Snedecor and Irwin Formula.

The information collected through primary survey of the concerned units have been shown in Tables 2- - 5.

Profile of the Units surveyed

TABLE – II

Ownership Pattern of the Surveyed Sample Units

OWNERSHIP PATTERNS	VIABLE UNITS *			NON-VIABLE UNITS	TOTAL NUMBER OF UNITS SURVEYED
	BY BANK	BY DIC	BY BOTH BANK AND DIC		
SP	38	36	6	93	173
Pt.	19	-	-	24	43
Pvt.	-	6	-	10	16
Total	57	42	6	127	232

Source: Primary Survey (January 2011- September 2012)
SP = Sole Proprietorship, Pt. = Partnership, Pvt.= Private Limited Company
* Viability of units has been identified following the RBI's Guidelines.

- Nature of Operation of the surveyed sample units

  The units are engaged in producing 11 main light engineering products, like Shaft, Bush, Pin, Nuts, Bolt etc. All the units have used electricity in their operation as the only source of power.

- Phone, Computer used by the surveyed sample units

  Out of 232 surveyed sample units 191 (82.33 percent) have telephone facilities, while only 10 units (4.31 percent) have computer facilities.

- Concept of International Organisation for Standarisation (ISO) 9000

  Among the concerned units surveyed, only 53 units (22.84 percent) have the idea regarding International Organisation for Standarisation (ISO) 9000.

- Assistance received by the surveyed sample units in the field of technology (Table – 3).

The responding units have taken technical assistance from MSME-DI and NSIC. From MSME-DI, the units have availed of assistance mainly in the areas of the (i) Quality Upgradation Scheme for obtaining ISO-9000/14001 Certification, (ii) selection of appropriate and cost effective mechanism and (iii) consultancy service at respective terms and conditions. NSIC, in this context, has assisted the units in conventional trades and testing facilities mainly.

TABLE –III

Technological Assistance Availed of by the Surveyed Sample Units

OWNERSHIP PATTERNS	ASSISTANCE AVAILED OF BY UNITS		ASSESSMENT OF ASSISTANCE[1]				
	NUMBER OF UNITS	SOURCES WITH NUMBER OF UNITS	5	4	3	2	1
SP	25	20 (MSME-DI), 5 (NSIC)	-	-	5	13	7
Pt.	4	2 (MSME-DI), 2 (NSIC)	-	-	1	3	-
Pvt.	6	4 (MSME-DI), 2 (NSIC)	-	-	-	4	2
Total	35	26 (MSME-DI), 9 (NSIC)	-	-	6	20	9

Source: Primary Survey (January 2011- September 2012)

[1]5 = More than Sufficient, 4 = Sufficient, 3 = About to be Sufficient, 2 = Little bit Insufficient, 1 = Totally Insufficient.

Assessment of Assistance i.e. Degree of Sufficiency of Technical Assistance provided to the responding units can be judged on the basis of their responses

collected through the Primary Survey (January 2011- September 2012), that is whether the respective assistance is sufficient enough to improve their performance in practice or not and then plotted on the 5 point rating scale accordingly.

- Technical knowledge of the managerial personnels of the surveyed sample units and its application in operation

TABLE – IV

Application of Technical Knowledge of the Entrepreneurs of the Surveyed Sample Units

OWNERSHIP PATTERN	UNITS WITH MANAGERIAL PERSONNEL HAVING TECHNICAL KNOWLEDGE AND APPLICATION[2] IN OPERATION						UNITS WITH MANAGERIAL PERSONNEL HAVING NO TECHNICAL KNOWLEDGE[1]
	NUMBER OF UNITS	ASSESSMENT OF APPLICATION OF TECHNICAL KNOWLEDGE[3]					
		5	4	3	2	1	
SP	42	-	-	5	10	27	131
Pt.	7	-	-	-	4	3	36
Pvt.	6	-	-	1	1	4	10
Total	55	-	-	6	15	34	177

Source: Primary Survey (January 2011- September 2012)

[1] Question of assessment of Technical Application does not arise in case of second group of units.

[2]Application specifies the use of Technical Knowledge of the managerial personnels of the concerned units in practical operational fields.

[3] 5 = Excellent Application, 4 = Very Good Application, 3 = Good Application, 2 = Satisfactory Application, 1 = Dissatisfactory Application.

Assessment of Application of Technical Knowledge i.e. Degree of Satisfaction of Applying of Technical Knowledge of the Managerial Personnels of the respective units in practice can be judged on the basis of their responses, collected through the Primary Survey (January 2011- September 2012), that is whether the respective assistance is sufficient enough to improve their performance in practice or not and then plotted on the 5 point rating scale accordingly.

TABLE V

Profile of the Entrepreneurs of Surveyed Sample Units

OWNERSHIP PATTERNS	NUMBER OF ENTREPRENEURS IN THE UNITS AS PER CHARACTERISTICS							
	SEX		CASTE		NATIVE PLACE		EDUCATIONAL QUALIFICATION	
	MALE	FEMALE	GENERAL	RESERVED	WB	OUT OF WB	WITH TECHNICAL QUALIFICATION	WITHOUT TECHNICAL QUALIFICATION
SP	162	11	87	86	100	73	17	156
Pt.	78	16	57	37	49	45	4	90

Pvt.	38	15	30	23	29	24	-	53
Total	278	42	174	146	178	142	21	299
Source: Primary Survey (January 2011- September 2012)								

Analysis of the study

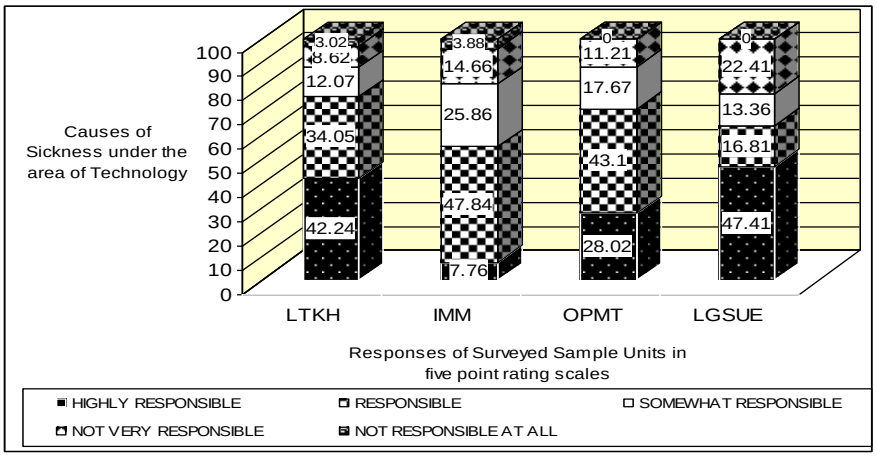
Four factors in the field of Technology – Lack of Technical Know-how of the Managerial Personnel (LTKH); Inadequate Maintenance of Machinery (IMM); Obsolete Plant, Machinery and Technology (OPMT) and Lack of Government Support to Upgrade Technology (LGSUT) have been identified by the respondents as the reasons for sickness of their units. The responses obtained through primary survey, in five point rating scale, have been shown in Table – 6 and Bar Diagram 1.

TABLE VI

Responses of the Surveyed Sample Units on the Causes of Sickness in the Area of Technology

CAUSES OF SICKNESS OF UNITS	RESPONSES IN FIVE POINT RATING SCALE						
	5	4	TOTAL	3	2	TOTAL	1
Lack of Technical Know-How of the Managerial Personnel (LTKH)	98 (42.24)	79 (34.05)	177 (76.29)	28 (12.07)	20 (8.62)	48 (20.69)	7 (3.02)
Inadequate Maintenance of Machinery (IMM)	18 (7.76)	111 (47.84)	129 (55.60)	60 (25.86)	34 (14.66)	94 (40.52)	9 (3.88)
Obsolete Plant, Machinery and Technology (OPMT)	65 (28.02)	100 (43.10)	165 (71.12)	41 (17.67)	26 (11.21)	67 (28.88)	0
Lack of Government Support to Upgrade Technology (LGSUT)	110 (47.41)	39 (16.81)	149 (64.22)	31 (13.36)	52 (22.41)	83 (35.78)	0
Source: Primary Survey (January 2011- September 2012) The percentage of the responding units to total units (232) has been shown in parenthesis. Here, 5 = Highly Responsible, 4 = Responsible, 3 = Somewhat Responsible, 2 =							

Not Very Responsible, 1 = Not Responsible At All



BAR DIAGRAM – 1

CAUSES OF SICKNESS UNDER TECHNOLOGY IN FIVE POINT RATING SCALE

Table - 6 and Bar Diagram – 1 show that a significant number of respondents have identified 'Lack of Government Support to Upgrade Technology' and 'Lack of Technical Know-how of the Managerial Personnel (47.41 percent and 42.24 percent respectively) as highly responsible for sickness of their units. Moreover, majority of the respondents (55 percent – 76 percent) have identified all the four factors – Lack of Technical Know-how of the managerial personnel, Inadequate Maintenance of Machinery, Obsolete Plant, Machinery and Technology, Lack of Government Support to Upgrade Technology, as highly responsible or responsible (responses to 5 and 4 of the rating scale taken together) for sickness of their units. Only about 3 percent and 4 percent of the respondents respectively expressed their views that 'Lack of Technical Knowledge of the Managerial Personnel', 'Inadequate Maintenance of Machinery' are 'not at all responsible' for sickness of their units (responses to 1). All of the respondents have opined that all the four factors mentioned above are responsible for sickness in varying degrees.

Statistical Analysis

Chi-Square (χ^2) test has been used here for testing the following hypotheses.

H_{01}: There was no significant association between the technical knowledge of the managerial personnel of the units and the degree of responsibility of Inadequate Maintenance of Machinery (IMM), in bringing about sickness in the Small Engineering units of Howrah.

H_{02}: There was no significant association between the technical knowledge of the managerial personnel of the units and the degree of responsibility of Obsolete Plant, Machinery and Technology (OPMT), in bringing about sickness in the Small Engineering units of Howrah.

H_{03}: There was no significant association between the technical knowledge of the managerial personnel of the units and the degree of responsibility of Lack of Government Support to Upgrade Technology (LGSUT), in bringing about sickness in the Small Engineering units of Howrah.

For calculating the test statistic ($\chi 2$), the Snedecor and Irwin formula, as mentioned below, has been used.

$$\chi^2 = G^2 / C_1 C_2 [\{\sum (a_i^2 / R_i) - C_1^2 / G\}]$$

The formula used in the present study, with the change of notations, stands as follows.

$$\chi 2 = T^2 / T_A T_B [\{\sum (a_i^2 / T_i) - T_A^2 / T\}]$$ {Goulden, (Second Ed.)}

Here, T (in place of G) = Total sick sample units,

T_A (in place of C_1) = Total of Group A,

T_B (in place of C_2) = Total of Group B,

T_i (in place of R_i) = Total number of sample units in specific rank,

a_i / T_i = Number of surveyed sample units in the specific ranking / corresponding total number of sample units

For testing the hypotheses, scores have been obtained from the frequency distributions of the surveyed sample units. Units surveyed have been classified into two groups – units with managerial personnels having technical knowledge (Group A) and units with managerial personnels having no technical knowledge (Group B) with respect to their different perceptions in connection with the degree of

responsibilities of the respective causes of sickness. The necessary information required for hypotheses testing are shown in Table – 7.

TABLE – VII

Necessary Information for Hypotheses Testing

GROUP	OPERATIONAL DEFINITION	NUMBER OF UNITS
A Units with Managerial Personnels having Technical Knowledge	This term, units with managerial personnels having Technical Knowledge signifies the type of small sick engineering units of Howrah where at least one managerial personnel has been with technical knowledge and hence considered to be belonging to one group. Here, the term Technical Knowledge can be considered as the knowledge arrived from (i) Technical Degree/Diploma or (ii) Training in Technical Field or (iii) Experience or (iv) All.	55
B Units with Managerial Personnels having no Technical Knowledge	This term, units with managerial personnels having no technical knowledge signifies the type of small sick engineering units of Howrah where not a single managerial personnel has been with technical knowledge and hence considered to be forming other group. Here, the term Technical Knowledge can be considered as the knowledge arrived from (i) Technical Degree/Diploma or (ii) Training in Technical Field or (iii) Experience or (iv) All.	177

The hypotheses have been tested for 3 degrees of freedom (d.f.) {(number of rows – 1) i.e. (n-1) = 4-1 = 3}. It may be mentioned in this context that responses to 2 to 5 of the rating scale (i.e., not very responsible, somewhat responsible, responsible and highly responsible respectively) have been considered ignoring the responses to 1 (not responsible at all). Calculation of χ^2 value for $H_{01,}$ in details, has been shown in Table – 8. Other results have been computed accordingly and shown in Table – 9.

Computation of χ^2 Value using Snedecor and Irwin formula with respect to H_{01}

TABLE VIII

Technical Knowledge of Managerial Personnels of the Units and Inadequate Maintenance of Machinery (Imm): Opinion of the Units Surveyed

RESPONSES OF SURVEYED SAMPLE UNITS IN THE RATING	UNITS WITH MANAGERIAL PERSONNEL HAVING TECHNICAL KNOWLEDGE (GROUP A)	UNITS WITH MANAGERIAL PERSONNEL HAVING NO TECHNICAL KNOWLEDGE (GROUP B)	T O T A L

SCALE	NUMBER OF UNITS	FULLY RESPONSIBLE (FR) (%)	NOT FULLY RESPONSIBLE (NFR) (%)	NUMBER OF UNITS	FULLY RESPONSIBLE (FR) (%)	NOT FULLY RESPONSIBLE (NFR) (%)	
5 (Highly Responsible)	6 (11.32)	67.92	-	12 (7.06)	17.55	-	18
4 (Responsible)	30 (56.60)			81 (47.65)			111
3 (Somewhat Responsible)	11 (20.75)	-	32.08	53 (31.18)	-	45.29	64
2 (Not Very Responsible)	6 (11.32)			24 (14.12)			30
Total	53 = T_A			170 = T_B			223 = T

Source: Primary Survey (January 2011- September 2012)
9 respondents were found in rank 1. as their responses were not taken, the total number of responses was 223 (232-9).

Calculated value of $\chi^2 = 3.20$

Critical value of χ^2 at 5 percent level of significance for d.f. 3 is 7.81. Therefore, H_0 has been accepted and it may be concluded that there has not been any significant association between the technical knowledge of managerial personnels of the units and the degree of responsibility of Inadequate Maintenance of Machinery (IMM) in bringing about sickness in the concerned units

TABLE – XI

Responses of the Surveyed Sample Units on the Degree of Responsibility of the Respective Causes of Sickness Under the Area of Technology

CAUSES	DEGREE OF RESPONSIBILITY OF THE CAUSES												RESULTS OF **X2**	REMARKS
	GROUP A						GROUP B							
	5	4	FR	3	2	NFR	5	4	FR	3	2	NFR		
IMM	6 (11.32)	30 (56.60)	36 (67.92)	11 (20.75)	6 (11.32)	17 (32.08)	12 (7.06)	81 (47.65)	93 (17.55)	53 (31.18	24 (14.12)	77 (45.29)	3.20	A (5%)
OPMT	9 (18.75)	19 (39.58)	28 (50.91)	21 (43.75)	6 (12.5)	27 (49.09)	56 (31.64)	81 (45.76)	137 (77.40)	20 (11.30)	20 (11.30)	40 (22.60)	21.90	R (1%)
LGSUT	26 (47.27)	10 (18.18)	36 (65.45)	12 (21.82)	7 (12.73)	19 (34.55)	84 (47.46)	29 (16.38)	113 (63.84)	19 (10.73)	45 (25.42)	64 (36.16)	6.91	A (5%)

Source: Primary Survey (January 2011- September 2012)
Group A = Units with Managerial Personnel having Technical Knowledge,
Group B = Units with Managerial Personnel having no Technical Knowledge
FR = Fully Responsible, NFR = Not Fully Responsibility. A=Accepted, R=Rejected
1 P value for 3 d.f. at 5 % level of significance is 7.81 and at 1 % level of significance is 11.34. The figure in

parenthesis of Remark column shows the level of significance at which the hypothesis is accepted or rejected.

As per Table - 9, H_{02} has been rejected, that is, there was no significant association between the technical knowledge of the managerial personnel of the units and the degree of responsibility of Obsolete Plant, Machinery and Technology (OPMT), in bringing about sickness in the Small Engineering units of Howrah.

In this context, the units of Group B (Units with Managerial Personnels having no Technical Knowledge) have suffered more than the other Group of units (Group A - Units with Managerial Personnels having Technical Knowledge). Here, more than 77 percent units of Group B have mentioned the concerned cause as fully responsible one for their sickness, while the concerned percentage in the respect of units of Group A has found as 50.91 percent. Units of Group B, in this regard, have not been able to select appropriate, long-lasting, production specific Plant, Machineries and suitable mechanism to handle the existing Plant and Machineries due to the absence of the technical knowledge of their entrepreneurs. They here, might not be able to understand the modernized technical requirement, needed to build up the successful operational activities. Accordingly, they might not feel the need to recruit technically skilled personnels in their units who might assist the units to equip modernized, operation-friendly Plant, Machineries and scientific mechanism to handle the same. In this respect, the units have not considered the ever-increasing high level competition in market which could be fought against by the appropriate technical knowledge and its application in operation in selecting suitable Plant, Machineries and Technology.

The units of Group A, in this connection, somehow could handle the very problematic situation though not satisfactorily, with the help of the technical knowledge of their entrepreneurs, might be arrived from their technical degree/diploma or from training programme of the respective institutions in technical field or from their experience or from all and also with the application of the same in selecting the suitable Plant, Machineries and mechanism of carrying on the scientific operational technique.

The units here have not been capable enough to feel the requirement of the present competitive arena in respect of the selection

of the suitable, modernized Plant, Machineries for successful survival. Therefore, to fulfill the requirement, they have recruited managerial personnels with technical degree/diploma and/or experience who would like to perform suitably in this regard or made them trained up from the training institutes in technical field for further betterment.

But the units have not been fully satisfied by the training programmes followed by the specific institutes as mentioned earlier in technical field might be due to the sub-standard practical application of the knowledge not compatible with the competitive operational requirement. Moreover, they might not consider their technical knowledge got from their degree/diploma and/or experience capable enough to make them successful in the competitive arena. All these have forced more than 50 percent of the units of the said Group to respond against the cause and remark this as fully responsible for their sickness.

V. CONCLUSION AND SUGGESTIONS

The foregoing analysis has revealed the necessary condition of acquiring the technically knowledgeable personnels in the units and application of their knowledge in practical operational field in appropriate scientific way to sustain in competitive arena. Therefore, efforts of all concerned parties are required for developing the technical knowledge and skill of the entrepreneurs so that they may use the modern plant and machineries with updated technology and improve their productivity, quality and profitability, which in turn will help them to survive and grow. A few suggestions are given below for improvement of the prevailing situation.

- The institutions like MSME-DI, NSIC etc. should help the entrepreneurs in assessing the need for appropriate technical knowledge and should conduct the training programmes in technical field keeping in mind the practical competitive requirement of the units for their survival and growth.
- Training programmes should be designed keeping in mind the need of the entrepreneurs, their academic background, nature of activities of the units in which they are engaged, etc.
- There should be scope for using the technology, as far as practicable, in the training institution itself so that the trainee entrepreneurs may get opportunities to learn through actual use of the same.

- There should be feedback and monitoring system which would help assessing the effectiveness of the training programme.
- The training institutes should arrange Seminar, Workshop on the technical field and invite the entrepreneurs of the respective units to participate there by making the same public as far as possible.
- Special industrial bulletin containing required technological information may be published by the Government and made available to small entrepreneurs at affordable price.
- Units by themselves should understand the condition of survival and growth in the present competitive scenario and likewise should opt for technically knowledgeable personnels and/or may help to upgrade the technical knowledge of the existing personnels of their units by allowing them to participate in the training programme of the institutions in technical field.
- Labour union, in this respect, should convey the requirements of the personnels to upgrade the technical knowledge, if there be any and should also held the personnels of the respective units to feel the necessity of upgrading the technical knowledge by explaining the present situation of the competitive environment.

Hence, it is the sole responsibility of all the respective associated parties to support the very sector of Howrah to the fullest extent and make it able enough to regain its lost reputation in national and international market and recognition as Birmingham/Sheffield of the East.

Endnotes

As the state-wise Fourth Census Report of India (2006-2007) has not yet been released, the data of the Third Census Report, Directorate of Cottage and Small Scale Industries, WB (2001-2002) on sickness have been used. It may be mentioned in this connection that SEs were recognised as SSIs, including tiny (now Micro) also, at that time.

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Diagnosing Definitional Issues of the Small Scale Sector in India

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ABSTRACT

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Definitional ambiguities of the small scale sector in India are a consequence of the diverse agencies and sources responsible for defining and documenting these units. They pose a challenge in getting a uniform and non-overlapping national level picture. The paper focuses on the evolution of definitional criteria laid down by the concerned Ministry from the post-independence period till date and throws light upon the underlying ambiguities. Simultaneously, other agencies have used different documentational criteria which may have led to under/over estimation in the documentation of the performance of the sector. The authors posit the need for a uniform definition and standard documentation practice.

Keywords: *MSME, Small Enterprises, Registered Units,*

I. INTRODUCTION

The small scale sector constitutes an important segment of the Indian economy in terms of its contribution to the country's industrial production, exports, employment and creation of an entrepreneurial base. It is estimated that in terms of value, the sector accounts for about 45 per cent of the manufacturing output and 40 per cent of the total exports of the country. The sector is estimated to employ about 59 million persons in over 26 million units throughout the country (MSME-Annual Report 2010-11). The issue that draws attention of policy makers and academicians is identifying single or primary and uniform criterion or characteristic by which this sector could be defined. Taking up the issue of defining the small scale sector raises the question of the necessity of defining the small. A comprehensive definition of the small scale sector is aimed at making sure that the factors that determine eligibility to be 'small' are aligned with current economic and industry indicators. Standardised definitions and concepts of small are also necessary to avoid divergent statistical figures at the national level for documentation purpose. With the diverse sources and agencies entrusted with the task of defining, identifying and documenting the small scale sector in India is it possible to get a uniform and non –overlapping picture at the national level?

II. THE DILEMMA IN DEFINITION

It may be observed that small enterprises are not easily defined or described on the basis of the nature of the work that workers or employees in the sector are engaged in, because the sector has tribal forest workers on one hand, as well as home-based, info-tech and software workers on the other. It cannot be based on the number of

employees in undertakings because it covers agricultural workers, craftsmen, home-based workers, self-employed workers, workers in weavers' cooperatives, as well as workers in small scale industries where the workforce can be counted on one's fingers. On the other hand, the definition of small business cannot be based on the level of organization because some of the enterprises may have very few workers, and even these may be working in a dispersed manner with hardly any organisational link or interaction with each other, sometimes because of the nature of the work, and sometimes because of the geographical or locational dispersal of the workers pursuing the same vocation. How then can we define the sector?

III. DEFINITION OF 'SMALL' ENTERPRISES: THE WORLD OVER

The legal definition of "small" varies by country and by industry. In the United States the Small Business Administration establishes small business size standards on an industry-by-industry basis, but generally specifies a small business as having fewer than 500 employees for manufacturing businesses and less than $7 million in annual receipts for most nonmanufacturing businesses.[1] The definition can vary by circumstance – for example, a small business having fewer than 25 full-time equivalent employees with average annual wages below $50,000 qualifies for a tax credit under the healthcare reform bill Patient Protection and Affordable Care Act.

In the European Union, a small business generally has fewer than 50 employees. However, in Australia, a small business is defined by the Fair Work Act 2009 as one with fewer than 15 employees. By comparison, a medium sized business or mid-sized business has fewer than 500 employees in the US, 250 in the European Union and fewer than 200 in Australia.

In addition to number of employees, other methods used to classify small companies include annual sales (turnover), value of assets and net profit (balance sheet), alone or in a mixed definition. These criteria are followed by the European Union, for instance (headcount, turnover and balance sheet totals). In summary it may be inferred: small businesses are usually not dominant in their field of operation[2].

IV. DEFINITION BY MSME ACT OF INDIA, 2006

The small scale sector as defined by the Micro Small and Medium Enterprises Act 2006 uses investment limits in plant and machinery and equipments as the criteria for defining the small. This definition, as offered by the Government of India has evolved from initial investment limit which was: fixed assets of R 5 lakhs in 1950 to its present form as per the MSMED Act, 2006. The era of reforms witnessed this limit swelling to a staggering R 30 million in 1997 (with corresponding rise in the investment limit for 'ancillary' units as well). The hiking of the investment limit to R 30 million was suggested by the Abid Hussain Committee Report (Government of India, 1997). But later, this figure had to be lowered to R10 million. In 1991, Export Oriented Units (EOUs) was introduced under the umbrella of small.

However the 'historical' value of the investment in plant and machinery as a criterion has been severely criticized mainly on two counts. One, often the valuation is based on unverifiable data; and, two, even when an already registered SSI unit has crossed far beyond the prescribed limit there is no need/intent to re-register it as a medium-or large-scale unit. Nevertheless, not only has the investment criterion continued, but there have been significant leaps in its upper limit, certainly since 1980. (Das, 2006)

In this context it may be relevant to bring into focus the registration process of the small units. Registration of small units is voluntary and not compulsory. The main purpose of registration is to throw up real numbers and maintain a roll of such units for the purposes of providing incentives and support services. So small units covered under the MSMED Act may or may not register with the District Industries Centre[3]. The documentation is conducted in this premise, of registered and non-registered units.

TABLE I

Definitional traversal of the small scale sector (1950 to 2006)

YEAR	CRITERIA: MAX CEILING IN INVESTMENT (R LAKHS)	ADDITIONAL CONDITION/CATEGORY (R LAKHS)
1950	5 (In Fixed Assets)	50/100 Persons Employed With/Without Power
1960	5 (In Fixed Assets)	No Condition
1966	7.5 (In Plant & Machinery)	No Condition
1971	7.5 (In Plant & Machinery)	No Condition
1977	10 (In Plant & Machinery)	Tiny Units(1 In P&M)
1980	20 (In Plant & Machinery)	Ancillary Units (25 In P & M) Tiny Units (2 In P & M)

1985	35 (In Plant & Machinery)	Ancillary Units (45 In P & M) Tiny Units (2 In P & M) Service Units (2 In P & M)
1991	60 (In Plant & Machinery)	Ancillary Units (75 In P & M) Tiny Units (5 In P & M) Service Units (5 In P & M)
1997	300 (In Plant & Machinery)	Ancillary Units (300 In P & M) Tiny Units (25 In P & M) Service Units (5 In P & M)
1999	100 (In Plant & Machinery)	Ancillary Units (100 In P & M) Tiny Units (25 In P & M) Service Units (5 In P & M)
2001	100 (In Plant & Machinery)	Ancillary Units (100 In P & M) Tiny Units (25 In P & M) Service Units (10 In P & M)
2006	Manufacturing: Micro: 25 Small: 5 Crore Medium: 10 Crore	Service: Micro: 10 Small: 2 Crore Medium: 5 Crore

Sources: (1) (1950-1977) SIDBI Report on Small Scale Industries Sector 2000, Small Industries Development Bank of India. (2) (1980-1999): Report on Small-Scale Industries Sector 2000, Small Industries Development Bank of India (SIDBI), Lucknow. (3) (2006: Ministry of Micro, Small & Medium Enterprises, 2007

The documentation of small units in India has been done by four official Census surveys beginning in 1973-74. Following the current definition, the recently conducted Fourth All India MSME Census with reference year 2006-07 documented the registered and unregistered units in the small scale sector on the basis of the definition provided in the MSMED Act, 2006. By registered units this Census includes units registered with the State Directorate or Commissioner of Industries or District Industries Centres (DIC's). The unregistered units are those which fall within the purview of the MSMED Act but have not been registered. The first two censuses did not include the unregistered units. Unregistered units were brought under the coverage of the census from the Third SSI Census. The First and Second SSI Censuses had enumerated only the registered units.

TABLE II

Coverage of SSI/MSME Censuses

CENSUS	REF YEAR	CRITERIA
1st Ssi Census	1973-74	Registered Units

2nd Ssi Census	1987-88	Registered Units
3rd Ssi Census	2001-02	Registered & Unregistered Units
4th Msme Census	2006-07	Registered & Unregistered Units.

Therefore the data available from the four censuses suffer from the several limitations. The units, which satisfied the criteria laid down by the Central Government from time to time in terms of upper ceiling, in original value of plant & machinery (in case of SSIs and ancillary units) and in value of fixed assets (in case of SSSBEs) and chose to be registered at district level were included in the first and second census only. These upper ceiling limits were policy driven and were always made applicable prospectively to new units seeking registration. The new units might not necessarily be newly established units. Some of the already established units might also have sought registration whenever the upper ceiling was enhanced, as they were not eligible earlier. Hence, it is not possible to state that the list of registered SSI units as on any date in the past bore the same classification in terms of the upper ceilings mentioned above. This posed difficulties in documenting the registered as well as the unregistered SSI sector. Obviously, the definition changed with time. Hence, it may be felt that it has become necessary to fix a reference in terms of time and then prescribe a definition of unregistered SSI sector.

The Unregistered SSI sector was not surveyed earlier than the Third Census. The First and the Second Census of SSI units covered only the registered SSI units. The impact of these structural changes may be reflected in the lack of uniformity in comparative analysis of Fourth with the Third Census in terms of size, employment, exports and gross output. The inclusion of service enterprises has added more than 180 lakh new units employing 49 per cent of total labour in the sector. With the increase in investment limit, 70,038 units registered under section 2m (i) and 2m (ii) of the Factory Act, 1948, have been included in the data, suddenly increasing the number of registered enterprises. In case of exports, the previous census did not include enterprises exporting their product through export/merchant houses located in export zones like ports. To overcome this underestimation, the latest census has collected data from units exporting their goods/services directly/indirectly or both.

The Censuses however failed to capture the informal/ unorganised segment of the small scale sector which still remains out of the purview of MSMED Act.

V. THE INFORMAL SECTOR

The question that this paper raises is that the Indian small scale enterprise sector figures that are thrown up by the Ministry of MSME do not cover the informal sector, because they are not regulated by the MSMED Act. All the unregistered units as per the MSMED Act do not belong to the informal sector.

According to NCEUS (2008)[4], the informal sector consists of all unincorporated private enterprises owned by individuals and households engaged in the sale and production of goods and services operated on a proprietary or partnership basis and with less than ten total workers.

Informal sector refers to economic activities i.e., production and distribution of goods and services by the operating units of the households which essentially differ from the formal sector in terms of technology, economies of scale, use of labour intensive processes, and virtual absence of well-maintained accounts. The informal sector as per SNA, 1993 refers to productive institutional units characterised by (a) low level of organisation, (b) little or no division between labour and capital, (c) labour relations based on casual employment and/or social relationships, as opposed to formal contracts. These units belong to the household sector and they cannot be associated with other units. In such units, the owner is totally responsible for all financial and non-financial obligations undertaken for the productive activity in question. The 1993 SNA endorses the resolution of the fifteenth International Conference of Labour Statisticians, January, 1993 in so far as informal sector concept is concerned. It embraces a widely dispersed multitude of operating units with high rates of birth and death and considerable mobility. It is informal in the sense that they are not regulated by government under any statute. Because of its labour intensive nature the informal sector provides employment to a sizable section of the population to whom the state is unable to provide adequate employment. The need for identifying this sector or bringing it under preview of legislation is required. Hence there is need to monitor the size and structure of this sector and its performance over time for framing appropriate policies.

Even though several studies use the term "informal sector", (Akintoye, 2006; Naik, 2009) Central Statistical Organization (CSO) in India introduces this sector as "unorganized sector" in its report on National Accounts Statistics (Bairagya, 2011). An explicit definition of the informal sector in the Indian context distinguishing between

unorganized and informal sector is provided by National Sample Survey Organization (2000).

According to it, the informal sector incorporates the unincorporated proprieties or partnership enterprises not covered under Annual Survey of Industries (ASI)[5]. In the unorganized sector, in addition to the unincorporated proprieties or partnership enterprises, enterprises run by cooperative societies, trusts, private and limited companies are also included. The informal sector can, therefore, be considered as a sub-set of the unorganized sector.

VI. UNORGANIZED SECTOR AND INFORMAL SECTOR

The terms 'unorganized' and 'informal' sectors are often used interchangeably. In India the term 'organized' and 'unorganized' is used in National Accounts Statistics (NAS)[6] and other official statistics. The unorganized sector has a crucial role in our economy in terms of employment and its contribution to the National Domestic Product, savings and capital formation. To provide the small scale sector with proper policy support, the government needs to identify the sector as a whole including the organized and the unorganized segment.

In the Indian National Accounts Statistics (NAS), the unorganized segment of the economy (CSO, 1989, 2007) refers to all operating units whose activities are not regulated under any Statutory Act or legal provision and/or those which do not maintain any regular accounts. In practice, the non-availability of regular accounts has been the main criterion for classifying these units as unorganized.

The 2008 SNA (Kulshreshtha, 2011) makes the important point that good coverage of the informal sector is essential to ensure the "exhaustiveness" of GDP estimates and thus improve the scope and quality of the national accounts. The informal sector according to the 2008 SNA (Kulshreshtha, 2011) consists of productive institutional units characterized by (a) low level of organization, (b) little or no division between labour and capital, and (c) labour relations based on casual employment and/or social relationships, as opposed to formal contracts. For statistical purposes, the operational definition of the informal sector is a group of production units which form part of the household sector as unincorporated enterprises owned by households (Kulshreshtha, 1998). The informal sector consists of: informal own account enterprises[7]; and enterprises of informal employers[8] (Kulshreshtha, 2011).

On the other hand, the unorganized segment of the small scale sector is covered through the regular survey program of the National Sample Survey Organisation (NSSO) and the follow-up survey rounds organized by the Central Statistical Organisation (CSO) after each Economic Census. Among the non-agricultural economic activities, the two major activities are manufacturing and trade. The NSSO unorganised sector surveys cover: Directory Establishments (DE), defined as non-public, unregistered enterprises employing more than five workers; Non Directory Establishments (NDE), which are like Directory Establishments but with less than five employees; and Own-Account Enterprises (OAE), which are enterprises that have no regular paid employees. These follow-up surveys thus provide estimates for the unorganized sector of the non-agricultural economy. Instead of the investment criteria followed by MSMED Act, the CSO and the NSSO use the employment criteria to identify the type of units in the unorganised small scale sector.

VII. CONCLUSION

Diverse information on the small scale sector is available from MSME Census, Economic Census, Enterprise surveys conducted as follow up of Economic censuses, Annual Survey of Industries and unorganised sector surveys conducted by NSSO. Moreover this information is not on the same footing due to their differing criteria used in defining small. When combined together the information from these sources may lead to overlapping and incomparable information about the small scale sector. The authors argue that within India there is lack of standardisation of definition of 'small' units: following the investment in plant and machinerycriteria of the MSME Act these are called 'medium', 'small' and 'micro'; again other units, which are undoubtedly small in scale are termed 'informal' units. Informal units are a subset of the 'unorganised' sector, which are included in SNA following the number of employees involved criterion in defining 'unorganised'.

At the same time, the authors posit that while investigating the issue of definition and documenting small sector, overlapping terms like informal and unorganised are used. Various agencies throw up national level figures in terms of informal sector (as given by NSS 67th Round Enterprise Survey, July 2010 to June 2011); unorganised sector (as given by NAS, 2011) and sometimes informal and unorganised used interchangeably as in the latest document of February 2012 (Report of the Committee on Unorganized Sector Statistics, 2012).

The Fourth MSME Census gives information on the size, nature of activity, type of organization, type of management/ownership and employment generated among other things in the registered and unregistered segment of the small scale sector. However the Census data does not cover all activities falling in the criteria of the informal sector even though they might as well very easily be considered under the purview of small. MSME Census uses the investment limit criteria while enumerating the small. On the other hand, the Economic Census, ASI, follow up Surveys and unorganised sector surveys conducted by NSSO use the employment criteria to enumerate the small. Within the same time frame different surveys on the same sector conducted on different footing are bound to shoot up varying and incomparable data.Observing this fuzziness in definitions, the authors suggest that a single window definition may be advocated for different agencies which address variety of issues faced by the small enterprises, be it soft loans, tax rebates, IPR protection or employment conditions may well be benefitted if such a comprehensive definition is arrived at. The GOI may entrust the Ministry of Micro, Small and Medium Enterprises to arrive at an all-encompassing definition, which will absorb all other sub categories, like informal, unorganised, etc. Thereafter the approved definition may be binding on all issues of the economy dealing with "small".

End Notes

1. Summary of Size Standards by Industry, SBA.GOV retrieved from www.sba.gov/content/summary-size-standards-industry
2. Small business, From Wikipedia, the free encyclopedia, http://en.wikipedia.org/wiki/Small_business
3. District Industries Centres (DICs) are the Nodal Offices towards development of Industries. Since the introduction in 1978, District Industries Centres are engaged for promotion of SSI to achieve the goal of providing more employment and rendering economic development.
4. The National Commission for Enterprises in the Unorganized Sector (NCEUS) was set up by the Government of India in 2004, to "review the status of unorganized/informal sector in India including the nature of enterprises, their size, spread and scope, and magnitude of employment".
5. The Annual Survey of Industries (ASI) conducted by the Central Statistical Organisation (CSO), Ministry of Statistics and Programme Implementation gathers information on "registered", or formal sector firms that are covered by Sections 2m(i) and 2m(ii) of the 1948 Factories Act and firms registered in the 1966 Bidi and Cigar Workers Act—particularly (i) those firms that use

electricity and hire more than 10 workers; and (ii) those that hire more than 10 workers but nevertheless employ 20 or more workers. It also covers certain utility industries such as power, water supply, cold storage, and the like. Units with 100 or more workers are categorized under the census sector and are completely enumerated, while the rest are categorized under the sample sector and are surveyed based on a predetermined sampling design.

6. The organized segment of the economy in the NAS broadly includes all large mining enterprises, manufacturing enterprises registered under the Factories Act 1948, and private and public corporations engaged in non-manufacturing activities. They are called organized because statistics on their activities are available regularly from budget documents, annual reports in the case of the public sector, and through the Annual Survey of Industries (ASI) in the case of registered manufacturing. All other operating units regardless of their kind of activity are in the unorganized segment**.**

7. Informal own account enterprises are owned and operated by own account workers. They may employ contributing family workers and they may also have paid employees but only on an occasional basis. Depending on national circumstances, either all own account enterprises may be defined as informal or only those which are not registered with the tax authorities, the statistical agency or other government body.

8. Enterprises of informal employers employ one or more employees on a continuous basis and depending on national circumstances they are defined as informal according to one or both of two criteria: number of employees and non-registration of the enterprise or its employees.

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Resumption of Indo-Bangladesh Border Trade: A New Phase of Bi-Lateral Co-Operations

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ABSTRACT:

Indo–Bangladesh border trade was first initiated in 1972. But ironically it was suspended within six months. Such a suspension order caused great hardships to the rural people living either side of the border who were miserably victimised by the abrupt partition of India in 1947. Considering the urges of several state governments of the north-east India, the Govt. of India placed a new modified proposal of 'Frontier Traffic' at New Delhi trade discussion in May 1973 but failed. The attempts to trace the changes since the 1990s when SAPTA and later on SAFTA in compatible with WTO provisions for free-trade regime were introduced by the SAARC.

Key words: *Border Trade, Indo-Bangladesh relations, SAPTA, SAFTA*

I. INTRODUCTION

Border trade as a part of formal trade is generally designed with some special arrangements for the well-being of the local people living either side of an international border within a limited distance of both the countries. Such special arrangements are found fruitful for those bordering countries having shared legacy of historical, cultural and even ethnic affinity for a long time. Instances of its success in the recent times may be cited for such trade among the next-door neighbours like China, Myanmar, Thailand, Cambodia, Vietnam, Bangladesh etc.

In case of India and Bangladesh, the Border Trade has had some reverse experience. Though both the countries have the same colonial legacy of British rule in the past, the same historic, cultural, linguistic and ethnic identity, the people of the region accepted the division of their motherland in 1947 as Radcliff Award. The eastern part of the then undivided Bengal became East Pakistan by a single stroke of the pen of Mr. Radcliff. After world War-II, some other countries like Germany, Korea, Vietnam etc. were also divided due to skewed political compulsions of that time. But they did not discard their original names

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after division of their respective motherlands. But ironically it was only in India, an influential section of political elites discarded the very name of "India" from the partitioned portion; and termed the separated geographical area with a new imaginary name of "Pakistan" (meaning: Sacred Land---a poetical imagination of the famous Urdu poet Md. Iqbal whose earlier realisational composition was: "Sare Janha se Achha, Yeh Hindustan Hamara….."", i.e., India is the best in the world…..). However, the division of India in 1947 was the outcome of a tripartite agreement entered into by the British Government, the Indian National Congress and the Indian Muslim League But the ethnic, cultural, linguistic and specially the politico–economic contradictions within the Pakistani state structure had found its culmination in a liberation war in East Pakistan for a separate nationhood in 1971 (Ayoob 1975).. After a bloodshed struggle of nine months, Bangladesh won her freedom on 16 December, 1971 as an independent sovereign state following the surrender of Gen. A.K.K. Niazi to the "Joint Command of India and Bangladesh Forces" in Dhaka. In this war, 27,000 allied Indian armymen and 30,00,000 Bangladeshi freedom fighters including civilians had to sacrifice their lives (Rezzak 1981). After the emergence of Bangladesh as the free and sovereign state, the question arises as to how long the reported tripartite agreement dividing India remains valid? The International Court of Law, perhaps, may be the appropriate authority to answer this basic question for India, Pakistan and Bangladesh.

Keeping aside the question pending with the world community as before, let us turn our attention to Indo-Bangladesh relations with special reference to Border Trade since its earlier inception in 1971. The youngest South Asian nation of Bangladesh has an age-old tie with India due to her historic position, geographic proximity and cultural heritage. So, the natural tie between the two next-door neighbouring countries finally entails in the first diplomatic recognition from India and in the conclusion of the "Treaty of Friendship, Co-operation and Peace between India and Bangladesh" on 19 March, 1972. The Treaty was signed by the former Indian Prime Minister Smt. Indira Gandhi and her counterpart in Bangladesh Sheikh Mujibur Rehman. It included 12 Articles and was signed for a term of 25 years with the provision of renewal by mutual agreement of the High Contracting Parties. In pursuance of the Article-5 of the Treaty[1], the two governments concluded their first trade agreement on 28 March, 1972. It was a historic outcome of the situation prevailed in South Asia region at that time, since both the countries had struggled together for the realisation of some common ideals for their people through blood and sacrifice.

That trade agreement had envisaged a three-tier trade structure, viz., (i) Border Trade; (ii) Rupee Trade; and (iii) Trade in Hard (freely convertible) Currency.

II. BORDER TRADE IN RETROSPECT

The provision of Border Trade was provided in Article-4 of the first trade agreement of India and Bangladesh (28 March, 1972 to 28 September 1973). According to the provision, people living within 16 kilometres on either side of the border may participate in mutual trade in the adjacent market places to dispose of their goods of daily-use and which are perishable in nature to meet their day-to-day requirements. This trade was free from export, import and exchange control restrictions as well as customs duty and customs formalities. Any person of the stipulated area holding a special permit issued by the respective competent authority, was allowed to cross the border only once a day in each direction on any two specified days of a week with specified items of commodities in specified quantities through such routes as was authorised on this behalf. The competent authorities in the two countries were empowered to relax the number of days to cross the border by the special permit-holders depending upon the market conditions in the locality. Persons having special permits were allowed to carry cash a maximum of Rs.100 in Bangladesh or Indian currency at the time of crossing the border. The competent authorities of either governments, however, had been empowered with the right to search the persons, if necessary, to exercise proper control over the abuse of such facilities.

For a smooth functioning of the system, the entire Indo-Bangladesh border-line of over 1,300 miles was divided into six specified sectors and lists of commodities with admissible quantities were presented in "Annexure to Schedule–B" meant for Border Trade. Such list contained a total of 55 specific items of commodities of India and 69 specific items of commodities of Bangladesh, mostly of primary products. Such a trade arrangement in the nature of barter transactions between the rural people living within 16 Kilometres of the frontier, was mainly designed with a welfare consideration to reduce the hardship of those people due to grossly inadequate supplies of commodities of daily-use; and thus was practically a resumption of the Border Trade more or less on the pattern that prevailed before Indo-Pak war in 1965[2].

But such a well-designed Border Trade arrangement failed to achieve the desired objectives and was suspended within six months of

its resumption at the formal suggestion from Bangladesh government at a 4-day extended Dacca trade talks in October 1972. Suspension of Border Trade was no surprise if we follow the provisions of the Agreement.[3]

The agreement to suspend Border Trade, however, was essentially a political move to help the Bangladesh goverment[8].The Bangladesh Mujib-Government was at that time under immense political pressure from the opposition parties in the face of first general election held on 7 March, 1973. The opposition parties in Bangladesh had raised an outcry of large-scale smuggling, causing havoc with the Bangladesh economy in the guise of 'Border Trade' (Adhikary, 1982).

As regards the question of smuggling, Rahim (1977) held that there was a board consensus of opinion among Bangladeshi Press, trade circles and government agencies of a large-scale organised smuggling of exportable items from Bangladesh to India. According to him, smuggling in Bangladesh was the effect of many complex factors, such as, (i) domestic monetary and credit expansion; (ii) inability of supply to respond in proportion to rise in demand, characterised by overall scarcity; (iii) the uncertain social climate which created fear in the minds of many and impelled them to save abroad; (iv) fear of further fall in the value of currency either through official devaluation or through persistent inflation; (v) the demand for invisible goods like travel and vacationing abroad; (vi) education of children abroad; (vii) non-conducing investment climate at home; and (viii) the low interest rate as against 12 to 14 percent interest payable abroad . Thus the measures as he suggested to stop smuggling were to device policies on an emergency footing to check inflation.

But the greatest irritating factor of smuggling between India and Bangladesh could not have been stopped despite serious measures that had been taken by both the countries. Smuggling was embittering the Bangladesh authorities although there was lack of realisation that the partition of India in 1947 based on geographical and political factors could not divide the two economies on a regional basis. The long Indo-Bangladesh border-line of over 1,300 miles required considerable vigilance on both sides to make sure that provisions relating to Border Trade agreement were strictly observed. This was not easy to enforce. As an extreme measure the Border Trade had been suspended to lessen the effectiveness of the propaganda made by some newspapers as well as politically opposition parties in Bangladesh stating Border Trade as a camouflage for large-scale smuggling to benefit India. Reedway and

Rahman (1976) wrote: "An economist visiting Bangladesh is likely to be rather puzzled by two things. First, the topic of smuggling of rice and jute from Bangladesh to India will be raised with astonishing frequency; and record, the estimates (or guesses) which are presented as to the scale of these operations vary enormously, from unimportant figures to well over a million of tons per year" They, however, ruled-out by a grass-root level empirical study on the problem the possibility of large-scale smuggling of rice and jute from Bangladesh to India[15]. It seemed to them that the quantitative importance of smuggling had been exaggerated, with an resultant detrimental effect on assessment of how well the country had been governed.

If we go through the following two tables showing seizure of ten leading items (out-going and in-coming) in anti-smuggling operations for 1972-73 and 1973-74 periods, as reported by the Bangladesh Rifles (a par-military force), we can have an idea about the extent of reality of the so-called large consensus in Bangladesh regarding siphoning of Bangladeshi wealth into India through large-scale smuggling.

TABLE I

Seizure of Ten Leading Items (Out-going from Bangladesh to India) in anti smuggling operations.

(Value in Thousand Takas)

Rank	Items	1972-73 ('000Tk)	Rank	Items	1973-74 ('000 TK)
1	Currency	1,044	1	Gold/Silver	481
2	Jute	401	2	Fish	349
3	Fish	287	3	Currency	206
4	Boat	261	4	Medicine	182
5	Gunny Bags	129	5	Eggs & Milk Powder	154
6	Cycle	115	6	Gunny Bags	126
7	Playing Cards	94	7	Rice/Paddy	114
8	Gold/Silver	54	8	Flour	106
9	Medicine	52	9	Skins	90
10	Chilly	46	10	Jute	84
	TOTAL:	2,483		TOTAL:	1,892

Note: Taka (Tk) = Legal tender of Bangladesh.
Source: Bangladesh Rifles (BDR).

TABLE II

Seizure of Ten Leading Items (in-coming from India into Bangladesh) in anti-smuggling operations.

(Value in Thousand Takas)

Rank	Items	1972-73 ('000Tk)	Rank	Items	1973-74 ('000 Tk)
1	Bidi & Leaves	1,464	1	Bidi & leaves	2,483
2	Cloth	800	2	Cloth	1,823
3	Cattle	782	3	Betel nuts/Leaves	643
4	Betel nuts/leaves	700	4	Thread	530
5	Car/Truck	516	5	Car/Truck	506
6	Thread	392	6	Machinery/ Spares	415
7	Launch/Engine-Boats	260	7	Cattle	331
8	Machinery/Spares	128	8	Metals	107
9	Cotton	112	9	Scent	96
10	Soyabean oil	40	10	Tobacco	48
	TOTAL:	5,192		TOTAL:	6,982

Note: Taka (Tk) =Legal tender of Bangladesh.
Source: Bangladesh Rifles (BDR).

It is visualised from the above two tables that smuggling covered a variety of commodities; and the unsuccessful smuggled-in Indian goods into Bangladesh in 1972-73 were double in value of such goods out-gone from Bangladesh to India. The same were about four times in 1973-74. So, it is likely to guess that the disastrous smuggling had caused greater havoc with the Indian economy. Moreover, Jute---the main foreign-exchange earner, and rice/paddy, the main staple food of Bangladesh did not have the same high ranking in the list of ten leading items of smuggled-out goods of Bangladesh to India in two successive years of reference. Whereas, smuggled-in goods into Bangladesh from India were more or less concentrated on some specific items, such as, (a) bidi & leaves; (b) cloth; and (c) Car/truck which maintained their consistent fixed ranking in the same two successive years of 1972-73 and 1973-74. It indicates a very high demand prevailed in Bangladesh for those Indian goods. But it is, however, very difficult and even may be misleading to draw some definite inference regarding smuggling trade due to non-availability of data relating to such illegal transactions. The available data relating to seizure of goods in anti-smuggling operations are merely the tips of the ice-bergs over the deep water-level.

So, the decision to suspend Border Trade within six months of its inception as an extreme measure had by no means checked the smuggling to a desired level, rather has caused undue hardship to the poor rural people living within 16 kilometres either side of the border for whose economic well-being the scheme was originally designed. "Annexure to Schedule-B" of the agreement provided six sectors for Border Trade, viz; (i) Mizoram-Chittagong Hill Tracts; (ii) Khasi, Jaintia and Garo Hill-Sylhet and Mymensingh sector; (iii) Cachar-Sylhet sector; (iv) Tripura-Bangladesh sector; (v) Rangpur (Bangladesh) –Assam (bordering district), Coochbehar, Jalpaiguri (West Bengal) sector; and (vi) Rest of Bangladesh-Rest of West Bengal sector. Number of permissible items varied from sector to sector and in many cases the quantities specified for exchange of goods indicating somewhat in vague terms, such as, 'headload', 'raftload', 'cartload' etc., which may have facilitated smuggling and malpractices. Moreover, while the arrangements made by India for Border Trade were in order, Bangladesh could not manage to make such arrangements by that time in its side of the border. So, there was a scope for rectifying the loopholes of the Border Trade arrangement to restrict the possibility of smuggling. At the Dacca trade talk in October 1972, Indian side was reluctant to agree with the proposal of suspension. But finally they agreed to it on the advice of Bangladesh delegations to accept the suspension at least for a time being. In reality, this 'time being' suspension was an action for some long uncertain periods. But the remote village people living near the border-line used to continue crossing the border as and when they desire; and this could not had been prevented even by the Pakistani military during 1965 to1971 periods.

At the New Delhi trade discussion in may 1973, India placed a new proposal for 'Frontier Traffic' as opposed to Border Trade. In this proposal an attempt was made to rectify the loopholes of the old Border Trade. Local authorities were assumed to empower the authority to issue licences to authorised persons to cross the border with goods on the dates fixed in advance to participate in local weekly markets called the "Haats". The selection of the items of goods and their respective quantities were also assumed to be decided by the local authorities depending on the needs of the locality. Under the previous Border Trade scheme, people were allowed to cross the border at any time with goods in vague quantities like---headload, boatload, cartload etc., which gave some scope for smuggling activities across the border. But the new scheme presented by India was designed to resume local Border Trade

under strict supervision for economic well-being of the people which was the primary motto of both the govermments[4].

Different bordering state governments in India like Mizoram and Meghalaya, had made special plea at different times to the Govt. of India for re-opening Border Trade with Bangladesh[5]. Indian Institute of Foreign Trade (IIFT), New Delhi had prepared lists of local produces, through grass-root level surveys, of the north-eastern states of India which may successfully enter into Border Trade with Bangladesh mutually beneficial to both the countries. Moreover, India had strengthened her anti-smuggling measures along the border-line. Border outposts were increased and patrolling by the Border Security Force (BSF) on the Indian side was intensified. The Criminal Prosecution Code was invoked to restrict movement of vehicles and persons across the border in the nights. India even made it known her willingness officially to seal her border with Bangladesh to curb smuggling[6]. But her new proposal for Frontier Traffic as opposed to Border Trade did not get support from Bangladesh at that time.

III. FORMATION OF SAPTA AND SAFTA

History may repeat itself; and this repetition may be in some higher form. This tenet also holds good in the most conflicting South Asia region. A crawling change in favour of mutual trust, cooperation and integrity could have been witnessed here particularly after the formation of SAARC (South Asian Association for Regional Cooperation) in 1985 at Dhaka. But since trade along with any contentious bilateral issues were excluded from deliberations, SAARC happened to be, in fact, an association neither exclusively and specifically for economic nor political cooperation (Vershney and Kumar1989). India, however, had placed the proposal in the Second Summit at Bangalore (India) to include the areas of trade, energy, industry and finance within the purview of SAARC programme. This was accepted in principle (Jetly 1989). But economic cooperation particularly in respect of regional trade was not considered seriously in the subsequent summit meetings[7]. After ten years of practically aimless travel, the SAARC for the first time, had implemented on its 10th anniversary on 7 December 1995 a regional preferential system called SAPTA ((South Asian Preferential Trading Arrangements). It was then felt that a regional cooperation devoid of economic cooperation is a fragile form of regional cooperation; and to make it a successful regional cooperation, stage by stage, the SAARC Economic Cooperation Committee was formed and

the proposal of SAPTA was endorsed at the seventh Summit (Waqif 1994). It was expected that SAPTA would pave the way to economic integration for the low income, poor and developing South Asia. Increased intra-regional trade within the SAARC countries due to introduction of preferential trading arrangements and the like other process of economic integration, would promote collective self-sufficiency; and this may ultimately cure the chronic slow growth by which the LDCs of the South Asia region are suffering (Adhikary 2005). In fact, they pledged to transform the region into South Asia Free Trade Area (SAFTA) by 2001 at the 9th SAARC Summit held at Male(Maldives) on 14 May, 1997. But this could not have been realised in time. At last SAARC nations concluded the framework agreement to establish SAFTA w.e.f. 1 January, 2006 at its 12th Summit held at Islamabad on 6 January, 2004 (Sharma. 2004). This would likely to open a new horizon for intra-regional trade for SAARC countries including India and Bangladesh.

If the tripartite agreement between the colonial British Government, Indian National Congress and Muslim League dividing India into two separate nations, i.e., India and Pakistan, has been nullified by the emergence of free and sovereign Bangladesh in 1971, the people of the area are now in liberty to adopt any scheme of action for their mutual development and well-being without having any compulsion of the provisions of that tripartite agreement any more. So, the formation of SAARC and the introduction of SAFTA superseding SAPTA w.e.f. 1 January, 2006 are the concerted efforts toward a right direction. This would pave the way to South Asian Economic Union (SAEU) just like the successful regional grouping of European Union (EU), in near future, as committed in the 13th SAARC Summit held at Dhaka on 13 November, 2005[8].

The scheme of SAFTA was designed to bring down tariffs to 20% in non-least developed SAARC countries (e.g., India, Pakistan and Sri Lanka) and 30% in least developed SAARC members (e.g., Bangladesh, Bhutan, Nepal and Maldives). The tariffs will further be brought-down to 0.5% in 2 non-LDCs (e.g., India and Pakistan) in the subsequent five years; Sri Lanka in six years and in 4LDCs, it will be in the subsequent eight years (Narayan, 2004). A SAFTA Ministerial Council and a Committee of Experts will look into the matters of:

(i) Undertaking measures to accord national treatment to each other's products in addition to harmonisation of standards,

reciprocal recognition of tests and accreditation of testing laboratories and certification of products;

(ii) Simplification of business procedures including foreign exchange regulations, banking procedures for import financing;

(iii) Removal of intra-SAARC investment barriers and harmonisation of import licensing and registration procedures; and

(iv) To provide special and preferential treatments to the least developed members (LDCs) (Sharma 2004).

A 10-point Social Charter has also been adopted to promote the welfare of the people of South Asia and to accelerate their economic growth. These are all in conformity with the rapid change in the global perspectives in the recent years; particularly after the end of cold-war period following the break-down of Soviet regime in the early 1990s and the conclusion of the 8th Uruguay Round multi-lateral trade negotiations of the GATT resulting into the institutionalisation of World Trade Organisation (WTO) on 1 January, 1995 (Adhikaryand Sadhukhan, 2005).

In fact, the SAFTA accord has been designed in compatible with the WTO provisions in all of its forms and contents[35]. And of late, India as the pivotal power in the region has announced on 11 November, 2011 at the 17th SAARC Summit held at Addu Atoll (Maldives) the reduction of the 'sensitive list' for least developed countries (Agfhanistan, Bangladesh, Bhutan, Nepal & Maldives) under SAFTA from existing 480 tariff lines to 25 tariff lines. This was in a major trade liberalisation move, India assured to give zero basic customs duty access to all items removed from the list immediately.

IV. FORMAL TRADE BETWEEN INDIA AND BANGLADESH--NEW OPPORTUNITIES

India and Bangladesh have accorded Most Favoured Nation (MFN) treatments to each other in their bi-lateral trade relations. They opted to switch-over from bi-lateralism to free-trade from January 1975 (Adhikari 1996). India is, however, always in a comfortable position to meet almost all the import requirements of Bangladesh in terms of quantities, qualities, values and timings. This is due to her close geographic proximity having an improved and extended base of trade, commerce and industry. As a result, India has always a favourable trade

balance with Bangladesh. The picture remains unchanged also in the recent years as revealed in Table-3.

TABLE III

Indo-Bangladesh Balance of Trade & Trade Reciprocity Indices: 2003-04 to 2009-10.

Year	India's Exports to Bangladesh (million US dollars)	India's Imports from Bangladesh (million US dollars)	India's Balance of Trade with Bangladesh (million US dollars)	Indo-Bangladesh Trade Reciprocity Indices
2003-04	1741	78	(+)1663	0.1
2004-05	1631	59	(+)1572	0.1
2005-06	1632	119	(+)1513	0.1
2006-07	1628	229	(+)1399	0.2
2007-08	2917	257	(+)2660	0.2
2008-09	2498	313	(+)2185	0.2
2009-10	2434	255	(+)2179	0.2
Average:	2069	187	(+)1882	0.2

Note: (+)-sign indicates India's favourable balance of trade.

Source: Ministry of Finance (Govt. of India)-Economic Survey (various issues).

Website: http:/indiabudget.nic.in

During the last seven years (2003-04 to 2009-10), both of India's exports and imports to and from Bangladesh have shown some erratic trends; and the imports have merely 9% share in her exports to Bangladesh on average. As a result, Indian's consistent favourable balance of trade with Bangladesh for the same reference period has recorded an average of 1882 million US dollars. This chronic event of high and staggering favourable balances with Bangladesh (i.e. Bangladesh's unfavourable balance of trade with India) is also confirmed by the very low trade reciprocity indices of their trade (value being 0.1 to 0.2 points) over the years indicated. The highest degree of trade

reciprocity index (θ) at 1, however, implies a state of balanced trade between the trade partners involved in foreign trade[38]. So, Indo-Bangladesh bi-lateral formal trade is still now taking place at the miserable low-level than to the level of a balance trade position as before. It gives a clear dictum to avail all possible way-outs at least to increase imports from Bangladesh and to give relief to Bangladesh from her chronic unfavourable balance of trade problems with India. Thus the resumption of a well-designed Border Trade arrangement may be one of the good devises, in the milieu of changing global and regional environments, to help solve the problem to a considerable extent.

The free trade regime under WTO and SAFTA agreements have opened some new and fresh opportunities for augmenting trade flows between India and Bangladesh compatible with their development strategies in the recent years. Moreover, the 9th SAARC Summit at Male on 14 May, 1997 has endorsed the proposal of "Growth Quadrangle" for the sub-regional India, Bangladesh, Nepal and Bhutan in some specific projects (Wadhva 1986). With intra-regional as well as other Foreign Direct Investments (FDIs) in such selected projects, all these sub-regional countries may accelerate their economic prosperity in future. In this context, the importance of resumption of Border Trade not only between India and Bangladesh but also between India and other sub-regional countries and even between India and China has been strongly felt. In Beijing, India and China has signed a joint declaration and also a Memorandum of Understanding (MOU) on 23 June, 2003 for resumption of Indo-China Border Trade through the historic silk route of Nathula Pass in east Sikkim. Similar trade agreement has been signed by India and Myanmar on 15 July, 2003 (Purkayastha, 2004).

In this backdrop, India and Bangladesh felt it necessary to resume the Border Trade when the Bangladesh Premier Sheikh Hasina Wazed paid her visit to India in January 2010. And to this effect a MOU was signed on 23 October in the same year

Pursuant to that understanding, the Indian commerce and industry minister and his Bangladesh counterpart inaugurated a Border Haat (rural market place) on 23 July, 2011 at the zero-point of the border of Kalaichar, West Garo Hills district in Meghalaya (India) and Baliamari, Kurigram (Bangladesh). For the first instance of the fresh start, it is estimated that an annual transaction of 20million dollars of local goods will take place in the Haat. 47 different kinds of products of both the countries will be transacted between 9.30 a.m. to3.00 p.m. on every Wednesday. Local produces like vegetables, food items, fruits,

spices, minor local forest products like bamboo, bamboo grass, and even some cottage items like lungi, plough, axe, spade, chisel and garments are to be disposed here; and they will be exempted from custom duties. Exchanges may be in local currencies or on barter.

V. CONCLUSION

It took about 39 years to resume Indo-Bangladesh Border Trade after its suspension in October 1972. A second Border Haat inspite of Kalaichar-Baliamari Haat, has been proposed to open at Balat (in East Khansi Hill)-Laughar (in Sunamganj) border in near future. In this way such other Border Haats to facilitate Indo-Banglabesh Border Trade will be opened by stages. The success of all these endeavors for economic prosperity and well-being of the rural people living either side of Indo-Bangladesh border, however, will depend on the strong political will of both the governments to put-out.

End Notes:

1. Article-5 of the *"Treaty of Friendship, Cooperation and Peace between India and Bangladesh* (March 9, 1972)" reads as: "The High Contracting Parties shall continue to strengthen in the economic, scientific and technical fields. The two countries shall develop mutual cooperation in the field of trade, transport, communication between them on the basis of the principles of equality, mutual benefit and the Most-Favoured-Nation principle".

2. Information accessed from India-Bangladesh Trade: New Rupee Area. *Commerce*, vol 214, No. 3179, p.867, April, 8 1972, Bombay.

3. Schedule-B to the Agreement states: "These arrangements shall be subject to review after a period of six months to consider whether they should be extended or amended in any way. If, even before the expiry of this period of six months, either country feels the need to withdraw or modify the facilities under this agreement, it would enter into immediate consultations with the other country, taking such measures as it may, consider necessary." Excerpts from the article 'Indo-Bangladesh Border Trade may not stay suspended for long.' *The Times of India,* October 11, 1972, Delhi.

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