ISSN 2349-6576

XIBA Business Review (XBR)

Volume 3 Issue 1&2 October 2017




XAVIER INSTITUTE OF BUSINESS ADMINISTRATION (XIBA)
Excellence with Ethics

XAVIER INSTITUTE OF BUSINESS ADMINISTRATION
(XIBA)
St.Xavier's College (Autonomous)
Palayamkottai

XIBA BUSINESS REVIEW – OCTOBER 2017

EDITOR – IN – CHIEF

Dr. S. Arockiasamy SJ
Director, XIBA, St. Xavier's College

EDITORIAL NOTE

XIBA seeks to impart Business education keeping in view the current trends in business. XBR, the bilingual journal of XIBA acts as a catalyst to translate this into a reality. The article "Empirical Evidence from Unit Root Test for Weak Form Market Efficiency: Special Reference to Broad Based Indian Stock Market Indices" examines the presence of weak-form of market efficiency attributing to the random walk model in Indian Stock Market namely National Stock Exchanges' NIFTY, NIFTY 500 and Bombay Stock Exchanges' SENSEX, BSE 100, BSE 200 and BSE 500. It is a very expensive cull out from the Stock indices for specific period.

The article "Employee Engagement in Retail Industry: A Conceptual Framework" lays highlights on the need for employee engagement in retail industries and it also emphasizes that the engaged employees empower today's business organisation. Further it condenses the important elements of employee engagement.

In the article "Impact of Sports Celebrities Endorsements on Consumer Behaviour of Low and High Involvement Consumer Products" the authors make an assessment on the Consumer level of interest on sports and attitude towards sports celebrity advertisement and perceived risk on the underlying purchase intention of Tirunelveli consumers.

A large number of firms and organizations are exploiting and creating business opportunities on the internet indicate the rapid growth in the field of virtual shopping. The article on "The Attitude of Working Women towards Online Purchase in Tirunelveli Corporation" analyses the level of satisfaction towards online purchase.

Ever since the formation of consumers BRICS and the BRICS club (Brazil, Russia, India, China and South Africa), is known for its tremendous growth potential. However it is in the midst of severe economic and political woes. On the one hand, The Federal rate increase has contributed to the mounting debt burden for these economies and on the other hand the falling global commodity prices have hindered the emerging markets which rely heavily on export led growth. In the article "Impact of BRICS agreement over Economy of Brazil, Russia, India, China and South Africa" the author has culled out relevant and updated information on the challenges the BRICS come across in keeping the Economic condition at stake. The paper titled "The ConBack Gimmick: A Strategy for Speculation" empirically explores the applicability of Keynes's assumptions on Indian Commodity Derivative market and the randomness of Contango and Normal Backwardation of Contract Months and Near Months in the select commodities.

The articles of XBR are quite relevant and contemporary to instil and enkindle the readers move on to further pertinent study. Let me congratulate the authors who have contributed to XBR

Dr. S. Arockiasamy SJ

Editor-in-Chief

XIBA Business Review

Volume 3 Issue 1 & 2 October 2017

ISSN: 2349-6576

Research Articles

XBR is available online at www.publishingindia.com

Empirical Evidence From Unit Root Test For Weak Form Market Efficiency: Special Reference To Broad Based Indian Stock Market Indices

N. Venkatesh Kumar*, M. Ganesh Babu**

Abstract *Examination of market efficiency especially in the context of developing markets plays a paramount role in order to structure informed investment decision and facilitates the existing and prospective investors to construct a well-diversified portfolio. This paper examines the presence of weak-form of market efficiency attributing to the random walk model in Indian Stock Market by considering the broad based market indices such as National Stock Exchanges' NIFTY, NIFTY 500 and Bombay Stock Exchanges' SENSEX, BSE 100, BSE 200 and BSE 500 for the period between 2000 and 2016 (17 years). During the study period, selected indices' daily returns have shown non-normality, homogeneity of mean and variance. Runs test for randomness, Auto-Correlation Function (ACF) and Augmented Dickey-Fuller (ADF) Unit root test have indicated statistically significant results and accentuates that the selected broad based market indices remained weak-form inefficient during the study period.*

Keywords *Indian Stock Market, Investment Decisions, Efficient Market, Randomness, Unit Root*

JEL Classification *IG10, G11, G14, C14, C58*

INTRODUCTION

Organizations' business cycle facilitate the prospective investors to perceive several economic indicators which impact the performance of stock prices in market and apparently these distinct variables help to predict the possible future price during the up market and recessionary periods. By virtue, on all parlances, the stock price of an organization shall possibly indicate better prospects; the successive financial performance of organizations comprises of peak positions and down positions that might reflect in the stock prices. Astonishingly, empirically, many researchers (Kendall & Hill, 1953; Ramasastri, 2000; Tripathi & Kumar, 2014) found no clear predictable patterns in stock prices and many found contradicting results (Gupta & Basu, 2007; Thomas & Kumar, 2010) that the stock prices followed predictable patterns. If the latter research studies proven pertinently tenacious, stock markets would have certainly become treasure hunt for all and this would have helped the investors buy stocks which are expected to increase in the short-run and sell the stocks which are expected to fall in the short-run. One might advocate that any prospective information pertaining to the organization which is arriving to the market newly would have already reflected in the stock price. However, if the price of the stock stabilizes at fair levels after adjusting to the new information, the new information said to be unpredictable and opportunity to generate abnormal profits over long-run would certainly become impossible. Thus, consecutive stock prices occurrence would have become purely random. The new information pertaining to the organization or exogenous shall cause variation in the stock prices, eventually, in an efficient market, profit opportunity may not exist. The stock prices would rapidly adjust to normalcy upon arrival of new information and current prices would expected to be reflecting all available information (Samuelson, 1965; Fama, 1970). Hence, the stock prices and the passive portfolios such as market indices are expected to follow pure stochastic process i.e. the successive price changes follow random process and remain unpredictable. Indeed, from other school of thought, if stock prices remain predictable, it inherently conveys that the availability of new information has not reflected in the stock prices which contradict the efficient market hypothesis. Therefore, in nutshell, in an efficient market, the stock prices and passive portfolios reflect all the available information and the distinct three categories of efficient market hypothesis can be classified as weak-form, semi-strong form and strong form hypothesis (Fama, 1970). Weak-form hypothesis portrays that the stock prices reflect all historical information from the trading track records.

* Research Scholar, PG & Research Department of Management Rajagiri Dawood Batcha College of Arts & Science, Papanasam, Tamil Nadu, India. Email: npavsk@gmail.com

** Assistant Professor & Research Advisor, PG & Research Department of Management Rajagiri Dawood Batcha College of Arts & Science, Papanasam, Tamil Nadu, India. Email: ishwar_ind2002@yahoo.com

Semi-strong form of hypothesis iterate that all publicly available information such as financial performance, earnings forecast and technical know-how in addition to the past prices. Strong form of hypothesis states that all the available information would reflect in the stock prices and this state has been considered as extreme. This version of hypothesis enumerates that even strategic level corporate executives who have access to insider information would not be able to use the information to generate abnormal profits. Hence this study is attempted to examine the existence of weak-form of random walk model in Indian stock market by considering the major indices such as S&P BSE SENSEX, S&P BSE 100, S&P BSE 200, S&P BSE 500, NIFTY and NIFTY 500. Brief profile of the aforementioned indices is as follows.

Table 1.1: Shows the Profile of the Selected Market Indices

S. No.	Index	Launch Year	1 Year Annualized Return (%)
1	S&P BSE SENSEX	1986	9.26
2	S&P BSE 100	1989	12.57
3	S&P BSE 200	1994	13.44
4	S&P BSE 500	1999	14.89
5	NIFTY	1996	12.88
6	NIFTY 500	1996	16.08

Source: Fact sheets from Bombay Stock Exchange and National Stock Exchange as on 31st August, 2017

LITERATURE REVIEW

Ramasastri (2000) studies the weak form of efficiency of the Indian stock market between 1991 and 1998 by considering the daily data of SENSEX. The ADF's unit root test was employed and the study suggested that the Indian stock market was weak form efficient during the study period.

Jarrett & Kyper (2005) examined the weak form of the efficient market hypothesis by randomly selecting 49 firms listed in NYSE and NASDAQ for the sample between April 1992 and September 2002. They found that the time series of closing prices of selected firms were not following stochastic trend and they contain daily effects. They also found that there was substantial existence of the time series components in closing prices of selected organizations.

Gupta & Basu (2007) examined the weak form of efficiency in the framework of random walk hypothesis for the two major equity markets in India for the period between 1991 and 2006. In order to test the weak form of market efficiency, daily returns using daily index values were considered. They had used Runs test, Augmented-Dicky Fuller (ADF) Unit root test, Philips-Perron test and KPSS test to validate whether the successive occurrences are independent or does the series contain a pattern. They found that the daily returns of both stock exchanges did not follow random walk model and the series contain significant auto correlation.

Nayak (2008) studied forty five listed stocks in National Stock Exchange representing various industries vertical such as Automobile, Power, FMCG, Infrastructure and Banking for its price predictability through Runs test. Among the selected sector stocks fourteen organisations were weak form inefficient and thirty one organisations were weak form efficient.

Thomas & Kumar (2010) analysed the weak form of efficiency by considering 29 listed organisations in Indian stock market. Their study reveals that during the study period all the selected stocks did not follow random walk hypothesis and all the stocks exhibited statistically significant auto correlation at different lags. Thus, they concluded that Indian stock market was weak form inefficient during the study period.

Singh (2010) explored the market efficiency of Indian stock market attributed to globalization and capital market reforms under the assumption that domestic and international reforms would improve the market efficiency. The period of study was between 1991 and 2002 which addresses the period after liberalization, globalization and initiation of capital market reforms. The sample stocks comprised 158 listed organisations in BSE 200 and the measures adopted to study the market efficiency had shown that the market was moving towards efficiency. Their study also revealed that daily returns had exhibited maximum departure from randomness and efficiency as compared to monthly returns.

Kumar (2011) studied the weak form of market efficiency in Indian foreign exchange market for the period between April 1993 and June 2010 by administering various variance ratio tests and found that the Indian Foreign exchange market was weak form inefficient during the study period.

Khan *et al.* (2011) analyzed Indian capital market for its weak form by considering two major exchanges such as National Stock Exchange (NSE) and Bombay Stock exchange (BSE) for the period between April 2000 and March 2010 by

administering Runs test. The results of this article exhibited that both markets were weak form inefficient during the study period.

Prasanna (2011) argued that effective corporate governance should facilitate to create efficient capital markets, specifically attributing to Clause 49 of the listing agreement during the year 2000. The study had shown that this reform has significantly caused high bandwidth volatility and subsided post-governance period there was no substantial evidence found for improved informational efficiency accounted to corporate governance regulation.

Srinivasan (2011) studied the integration and causality between National Stock Exchange and Bombay Stock Exchange from July 1997 to August 2010, consisted of 3244 daily indices return. They found the existence of market integration between the two selected broad based Indian indices. Both exchanges had exhibited strong bidirectional relationship and they significantly influence each other. He suggested that market inefficiency in the short-run ensures market efficiency in the long-run.

Kumar & Dhankar (2011) examined the normality of daily, weekly, monthly and annual returns of Bombay Stock Exchange indices such as SENSEX, BSE-100 and BSE500 for the period between 1996 and 2006 by applying various parametric and non-parametric tests. The entire study period were split into three distinctive time horizon for examining the normality. They found that 1) the returns were negatively skewed for all the selected indices 2) daily and weekly returns were not normally distributed 3) monthly and annual returns were normally distributed.

Patel & Dhawan (2012) investigated weak form of market efficiency of Bombay Stock Exchange, Hong Kong Stock Exchange, Shanghai Stock Exchange and Tokyo Stock Exchange from the year 2000 to 2011. The daily returns were examined by administering various tests such as Serial correlation, Runs test, Unit root tests and Variance ratio. The study iterated mixed findings that 1) Unit root examination showed all markets exhibited no unit root during the study period, 2) Runs test revealed Bombay Stock Exchange and Hong Kong Stock exchange remained inefficient; Shanghai Stock Exchange and Tokyo Stock Exchange remained efficient during the study period 3) Serial correlation examination revealed that the returns were weak form efficient at certain lagged returns and inefficient at certain lagged returns.

Mishra *et al.* (2012) examined 100 most actively traded stocks at National Stock exchange for its informational efficiency by taking the closing prices for the period from April 1999 to March 2012. They found that there was informational asymmetry and absence of weak form of efficiency in Indian Stock Market.

Jain *et al.* (2013) studied the weak form of Indian capital market during the global financial crisis i.e. from April 2005 to March 2010 by considering the daily closing prices of BSE, Nifty, CNX100 and CNX500. They employed tests such as ADF Unit root test, Philips-Perron (PP) and Runs Test to evaluate the Indian capital market's random walk. Their study had shown that the Indian capital market was informational efficient and no investor could have earned any abnormal profits by accessing to insider information.

Siddiqui & Narula (2013) explored the randomness in stock return of Indian stock market by considering the daily return of S&P CNX Nifty for the period between 1992 and 2012 (20 years). The total number of daily returns included 5113 observations. They employed both parametric and non-parametric tests to determine the randomness of stock prices. They concluded that all the measures employed to test weak form of efficiency supported inefficiency of Indian stock market.

Totala *et al.* (2013) attempted to provide empirical evidences of weak form of efficiency in Indian stock market by considering several indices of National Stock Exchange for the period between 2006 and 2012. Their study showed that the selected NSE indices were not fully weak form efficient during the study period.

Jayakumar & Sulthan (2013) examined weak form of efficiency from 2007 to 2011 by validating the returns of National Stock Exchange indices such as NIFTY, Bank NIFTY, NSE Infra index, NSE IT index and NSE FMCG Index through Runs test, Auto Correlation and ADF test. The study exhibited that the selected indices did not show the characteristics of random walk model and concluded that the stock prices had remained predictable during the study period.

Tripathi & Kumar (2014) analysed the sectorial efficiency of Indian stock market by studying 11 industry indices such as FMCG, Media, PSU Banks, Auto, Banks, Finance, Energy, IT, Metal, Realty and Pharma. Their study covered 10 years of daily returns for the period between 2004 and 2014 which included global financial crisis. They had applied various methodologies such as ADF Unit root tests, KPSS, Philips-Perron test and variance test ratios. They concluded that market index had shown weak form efficient but no substantial evidence was witnessed for sectorial indices during the study period.

OBJECTIVE OF THE RESEARCH

The primary objective of the research is to examine whether the selected broad based Indian stock exchanges follow random walk model and exhibit weak-form of efficiency.

DATA AND METHODOLOGICAL FRAMEWORK

The daily closing index values have been obtained from Bombay Stock Exchange (BSE) and National Stock Exchange (NSE) for the period of 17 years between 2000 and 2016 (January to December), comprising a total of 4255 observations. This long study period is taken to minimize any impact that would arise due to short-term economic fluctuations. The research considers the broad based major market indices such as S&P BSE SENSEX, S&P BSE 100, S&P BSE 200, S&P BSE 500, NIFTY 50 and NIFTY 500 for analysis. In this study, attempt is made to analyze only the stock market returns generate from respective market indices during the sample period and there have been no specific attribution made with respect to rights issue, bonus issue etc.

The daily return of selected broad based indices is ascertained as the logarithmic difference between two consecutive index values during the study period, which results in continuously compounded return at period *t* and the index return *RM* is calculated as follows.

$$R_M = \ln (I_t - I_{(t-1)}) \times 100 \quad \ldots \text{(Eq. 4.1)}$$

Where 'It' is the current period's index value and 'It-1' is the previous period's index value. 'RM' is the daily market return.

Phase 1: Normal distribution of daily market returns

In order to analyse whether the daily market returns are normally distributed or not normally distributed, Jarque-Bera test statistic is used. JB statistic has proven as a precise measure when the sample size is relatively very large. The testable hypothesis is as follows.

H0: The daily returns of selected broad based market indices follow normal distribution during the study period.

H1: The daily returns of selected broad based market indices do not follow normal distribution during the study period.

Phase 2: Examination of homogeneity of mean and variance of daily returns for block periods

The block periods have been considered as the calendar years i.e. January, 2000 to December, 2000 is taken as block period 1 and accordingly. This block period arrangement has been done to examine the mean and variance difference across the block periods during the study period. In order to validate the following hypotheses, one way analysis of variance (ANOVA) and Levene's statistic are used.

H0: There is no significant difference in mean daily return across the selected broad based market indices during the entire study period and block periods (17 blocks).

$$\mu_{(R(NIFTY))} = \mu_{R(NIFTY\ 500)} = \mu_{R(SENSEX)} = \mu_{R(BSE100)} = \mu_{(R(BSE200))} = \mu_{(R(BSE500))}$$

H1: The selected broad based market indices exhibit significantly different daily mean return during the entire study period and block periods (17 blocks).

$$\mu_{(R(NIFTY))} \neq \mu_{R(NIFTY\ 500)} \neq \mu_{R(SENSEX)} \neq \mu_{R(BSE100)} \neq \mu_{(R(BSE200))} \neq \mu_{(R(BSE500))}$$

H0: There is no significant difference in variance of mean daily return across the selected broad based market indices during the entire study period and the block periods (17 blocks).

$$\sigma^2_{R(R(NIFTY))} = \sigma^2_{R(R(NIFTY\ 500))} = \sigma^2_{R(R(SENSEX))} = \sigma^2_{R(R(BSE100))} = \sigma^2_{R(R(BSE200))} = \sigma^2_{R(R(BSE500))}$$

H1: The selected broad based market indices exhibit significantly different variance of daily mean return during the entire study period and the block periods (17 blocks).

$$\sigma^2_{R(R(NIFTY))} \neq \sigma^2_{R(R(NIFTY\ 500))} \neq \sigma^2_{R(R(SENSEX))} \neq \sigma^2_{R(R(BSE100))} \neq \sigma^2_{R(R(BSE200))} \neq \sigma^2_{R(R(BSE500))}$$

Phase 3: Test for randomness

In order to examine the random walk model at its weak-form of efficiency among the selected broad based market indices, runs test has been used. It helps to find whether the successive departures of price level changes in the passive portfolio is a pure stochastic process (non-stationary) or price level changes follows a significant pattern due to informational asymmetry in the market. The testable hypothesis is as follows.

H0: The successive daily return of selected indices occurs randomly and no anomaly to earn substantial profits.

H1: The occurrence of successive daily return of selected indices is non-random and it follows significant pattern.

The successive change in index value is measured as a run, which is attributed to the following test statistic.

$$Z = \frac{V - \mu_V}{\sigma_V} \approx N(0,1) \quad \ldots \text{(Eq. 4.2)}$$

$$\mu_V = \frac{2n_1n_2}{n_1 + n_2} \quad \ldots \text{(Eq. 4.3)}$$

$$\sigma_V^2 = \frac{2n_1n_2 \times (2n_1n_2 - n_1 - n_2)}{(n_1 + n_2)^2 \times (n_1 + n_2 - 1)} \quad \ldots \text{(Eq. 4.4)}$$

Where, n_1 and n_2 represents the number of observations above and below the median daily return respectively. μV is the mean of V statistic and σV is the standard deviation of V statistic. The sampling distribution of V statistic is approximated to standard normal distribution with mean '0' and variance '1'.

Phase 4: Unit Root analysis (Augmented Dickey-Fuller Test)

The Augmented Dickey-Fuller test for Unit root examination is used in order to determine whether the broad based indices return time series is stationary or non-stationary and it is ascertained by the following regression.

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum_{i=1}^{m} \alpha_i \Delta Y_{t-1} + \varepsilon_t \quad \ldots \text{(Eq. 4.5)}$$

Where is a pure white noise error term and $\Delta Y_{t-1} = Y_{t-1} - Y_{t-2}$ and $\Delta Y_{t-2} = Y_{t-2} - Y_{t-3}$

The testable hypothesis is as follows.

Ho: δ i.e. Broad based indices' return time series have Unit root and non-stationary. If the null hypothesis is not rejected then it can be concluded that the selected broad based market indices are weak-form efficient.

H1: δ i.e. Broad based indices' returns do not have Unit root and stationary. If the null hypothesis is rejected then it can be concluded that the selected broad based market indices follow a significant pattern and they are weak-form inefficient.

ANALYSIS & DISCUSSIONS

Table 5.1: Shows the Descriptive Statistics of Selected Broad based Market Indices and Results of Normality Tests

Index	Average Daily Return (%)	SD (%)	Skewness	Jarque-Bera	Probability
	No. of daily observations (n) = 4255				
NIFTY	0.040	1.508	-0.2964	12667.07***	0.0000
NIFTY 500	0.041	1.518	-0.5572	10337.22***	0.0000
SENSEX	0.039	1.517	-0.1965	9318.49***	0.0000
BSE100	0.040	1.557	-0.3806	8373.48***	0.0000
BSE200	0.041	1.533	-0.4816	9351.71***	0.0000
BSE500	0.042	1.513	-0.5515	9201.61***	0.0000

*** 0.01, ** 0.05, * 0.1 Level of Significance

Table 5.1 exhibits the descriptive statistics of selected broad based indices with their normality distribution. The average daily return of the selected indices during the study period showed uniform level ranging between 3.9% and 4.2%. The daily return's risk measurement through standard deviation ranges between 1.508 and 1.557. Comparatively, the S&P BSE 500 yield highest daily return during the study period and NIFTY resulted in lowest standard deviation. All indices have shown that the daily returns are negatively skewed i.e. asymmetrical distribution of return data series, hence, there is a high probability that the daily return series of the indices, statistically, may not follow normal distribution due to the very fact that the Skewness value significantly departed from zero. Although for very large sample size, normality investigation is insignificant, in order to lay foundation for successive price occurrences are serially independent to justify weak-form market efficiency, normality of daily return data series has been tested by administering Jarque-Bera normality test. The test has been carried out at three distinctive levels of significance such as 1%, 5% and 10%. The test has showed that the calculated probability pertaining to all indices are less than the assumed level of significance, hence, the null hypothesis is rejected *(PCal< Pα: 0.0000 < 0.01, 0.05, 0.1)* and conclude that the broad based market indices' daily return do not follow normal distribution i.e. Skewness ≠ 0. This empirical result lays a platform to further examinewhether the selected broad based indices weak-form efficient or weak-form inefficient.

Table 5.2: Shows the Results of Homogeneity of Daily Mean Return and Variance of Selected Broad based Market Indices in Respective Years from 2000 To 2016

Description	Entire Period		Block Periods (17 Blocks)	
	F-Statistic	Probability	F-Statistic	Probability
Homogeneity of mean daily return	0.004 *df(5,25523)*	0.9999	0.00 *df (5,96)*	0.9999
Homogeneity of variance of mean daily return	0.370 *df (5,25523)*	0.8690	0.11 *df (5,96)*	0.9896

**** 0.01, ** 0.05, * 0.1 Level of Significance*

In order to examine the homogeneity of average daily return and variance, one way analysis of variance and Levene's statistic respectively have been used. This examination has been carried out by considering 1) entire period i.e. from January, 2000 to December, 2016; number of observations for each selected index = 4,255 2) Each calendar year has been considered as one block, thus, resulting in 17 block periods. The summary of inference is as follows,

- *Homogeneity of mean return (Entire period): P_{Cal} > Pα: 0.9999 > 0.01, 0.05, 0.1*
- *Homogeneity of mean return (Block period): P_{Cal} > Pα: 0.9999 > 0.01, 0.05, 0.1*
- *Homogeneity of variance (mean-Entire period): P_{Cal} > Pα: 0.8690 > 0.01, 0.05, 0.1*
- *Homogeneity of variance (mean-Block period): P_{Cal} > Pα: 0.9896 > 0.01, 0.05, 0.1*

The results reveal that none of the hypotheses have been rejected at the assumed level of significance and conclude that there is no significant difference in average daily return and variance among all the selected broad based indices during the study period.

Table 5.3: Shows the Results of Runs Test of Selected Broad based Market Indices

Index	No. of Runs	Z	Probability
NIFTY	1994	-4.123***	0.0000
NIFTY 500	1900	-7.005***	0.0000
SENSEX	1986	-4.370***	0.0000
BSE100	1954	-5.351***	0.0000
BSE200	1924	-6.270***	0.0000
BSE500	1890	-7.311***	0.0000

*** 0.01, ** 0.05, * 0.1 Level of Significance

The runs test has been performed to determine that the successive occurrence of price is independent. This iterates the fact that the historical prices do not contain any valuable information that can be used to yield abnormal profits. In order to ascertain the test statistics the median value has been used because in an asymmetrical distribution as evident from Table no. 5.1 the median value would exist between mean and mode. It has been observed that the test value (median) is ranging between 0.09 and 0.15. Table 5.3 indicates that all the selected broad based indices' null hypothesis has been rejected at all level of significance (P_{Cal} < *Pα: 0.000 < 0.01, 0.05, 0.1)* and conclude that the successive occurrence of prices is not independent and not following random order during the study period. This statistically significant evidence iterates that there is a significant pattern which can be possibly exploitable. Hence, the runs test reveals that the selected broad based market indices are weak-form inefficient.

Table 5.4: Shows the results of Unit root analysis of selected broad based market indices

Index	ACF/Box-Ljung Statistic	Random walk with intercept and deterministic trend			
		Intercept	Det. trend	Lag return (R_{t-1})	Lag First difference (ΔR_{t-1})
NIFTY	Ho: ρ = 0 H_1: ρ ≠ 0 (Up to 36 lags: P_{Cal} = *0.0000*)	0.03 t=0.59,0.56	0.00 t=0.26,0.80	-0.97*** t=-46.44,0.00	0.05*** t=3.20, 0.00
NIFTY 500		0.02 t=0.33,0.74	0.00 t=0.49,0.62	-0.88*** t=-57.68,0.00	--
SENSEX		0.02 t=0.44,0.66	0.00 t=0.37,0.71	-0.93*** t=-60.70,0.00	--
BSE100		0.02 t=0.32,0.75	0.00 t=0.47,0.64	-0.90*** t=-59.06,0.00	--
BSE200		0.02 t=0.39,0.70	0.00 t=0.45,0.65	-0.89*** t=-58.52,0.00	--
BSE500		0.02 t=0.42,0.67	0.00 t=0.43,0.67	-0.88*** t=-57.83,0.00	--

*** 0.01, ** 0.05, * 0.1 Level of Significance

Table 5.4 describes the autocorrelation function of selected broad based indices and statistical significance for stochastic process through Augmented Dickey-Fuller test. The autocorrelation function signifies whether the lagged return contains any useful information which will explain the current period's return. If there is no statistically significant

autocorrelation, it can be interpreted that the daily return follows random walk. It has been observed that albeit there is statistically significant autocorrelation (*PCal< Pα: 0.000 < 0.01, 0.05, 0.1)* observed till 36 lags, the autocorrelation coefficient of selected broad based indices' lagged return are either very low degree of positive correlation or very low degree of negative correlation, hence, unable to draw conclusion deterministically. Traditionally, for initiating the unit root process, it is assumed that where the coefficient of *Rt-1* is expected to be between -1 and +1 i.e. $-1 < \rho < +1$. It is known that if the $\rho = 1$, then the selected broad based indices would exhibit random walk model without intercept term and shall be treated as nonstationary stochastic process. This aforementioned notion can be expressed as random walk without intercept term and this is the foundation for Dickey-Fuller Unit root examination. This notion can also be rewritten as where is the first order difference operator of return pertaining to the selected broad based market indices and the results are summarized as follows.

In order to test existence of unit root in the selected indices, the null hypothesis has been set as against the alternate hypothesis. If the null hypothesis is not rejected, then the return time series of selected broad based indices have unit root and non-stationary. If null hypothesis is rejected, then the time series is considered to be stationary. It is seen from the analysis that all the selected broad based indices' return time series exhibited stationary and remains predictable during the study period as per the basic notion of random walk without intercept and trend terms. In the aforementioned analysis, it is presumed that white noise error term is not correlated. Augmented Dickey-Fuller test (ADF) is a restructured version if the white noise error term is correlated and the results of ADF statistic is summarized in the table 5.4. The ADF test includes an intercept term with deterministic trend. Analysis has revealed that the calculated 't' value in absolute terms is far greater than the critical values at 0.01, 0.05, 0.1 level of significance i.e. -3.9602,-3.4109, -3.1272 respectively as well as the calculated probability is less than the assumed level of significance (*PCal< Pα: 0.000 < 0.01, 0.05, 0.1),* hence, reject the null hypothesis and conclude that the selected broad based indices do not have unit root during the study period and the daily return is considered to be stationary. Thus, it can be interpreted that the selected broad based market indices is weak-form inefficient.

CONCLUSION

In an information ally efficient markets possibility of generating abnormal profits do not exist. This paper examines the presence of weak-form of efficiency among the major Indian stock market indices such as NIFTY, NIFTY 500, SENSEX, BSE 100, BSE 200 and BSE 500. Initial examination with respect to normality of daily returns by using Jarque-Bera test has shown that the selected broad based market indices follow asymmetrical distribution during the study period. Homogeneity of mean daily return and homogeneity of variance of daily return examination has yielded statistically insignificant results portraying that the selected broad based market indices have exhibited equal return with equal variance during the study period. Preliminary examination for efficient market hypothesis at weak form of efficiency through runs test has shown statistically significant results as the selected indices' daily returns are not successively independent and it follows significant pattern, hence, they exhibit weak-form inefficiency during the study period (khan *et al.*, 2011; Jayakumar & Sulthan, 2013). The results of Augmented Dickey-Fuller test show statistically significant outcomes as the selected broad based indices do not have unit root and the daily return time series are stationary during the study period (Gupta & Basu, 2007). Thus, this study enumerates the fact that the selected broad based market indices remain predictable and investors can generate abnormal returns by holding a well-diversified portfolio through rational use of information existed in the past prices.

REFERENCES

Fama, E. (1970). Efficient capital markets: A review of theory and empirical work. *Journal of Finance, 25*, 383-417.

Gupta, R., & Basu, P. K. (2007). Weak form efficiency in Indian stock markets. *International Business & Economics Research Journal, 6*(3), 57-64.

Jain, P., Vyas, V., & Roy, A. (2013). A study on weak form of market efficiency during the period of global financial crisis in the form of random walk in Indian capital market. *Journal of Advances in Management Research, 10*(1), 122-138.

Jarrett, J. E., & Kyper, E. (2005). Daily variation, capital market efficiency and predicting stock market returns. *Management Research News, 28*(8), 34-47.

Jayakumar, D. S., & Sulthan. (2013). Testing weak form efficiency of Indian stock market with special reference to NSE. *Advances in Management, 6*(9), 18-26.

Kendall, M., & Hill, B. (1953). The analysis of economic time series, Part I: Prices. *Journal of the Royal Statistical Society, 116*(1), 11-34.

Khan, A., Ikram, S., & Mehtab, M. (2011). Testing weak form market efficiency of Indian capital market: A case of National Stock Exchange (NSE) and Bombay Stock Exchange (BSE). *African Journal of Marketing Management, 3*(6), 115-127.

Kumar, A. S. (2011). Testing for weak form of market efficiency in Indian Foreign Exchange Market. *The IUP Journal of Monetary Economics, 9*(3), 7-19.

Kumar, r., & dhankar, r. s. (2011). distribution of risk and return: a test of normality in indian stock market. *South Asian Journal of Management, 18*(1), 109-118.

Mishra, A. K., Misra, V., & Rastogi, S. (2012). Empirical evidence on weak form of efficiency in Indian stock market. *International Journal of Financial Managment, 2*(3), 62-78.

Nayak, K. M. (2008). A study of random walk hypothesis of selected scrips. *ASBM Journal of Management, 1*(1), 118-127.

Patel, N. R., Radadia, N., & Dhawan, J. (2012). An empirical study on weak-form of market efficiency of selected Asian stock markets. *Journal of Applied Finance & Banking, 2*(2), 99-148.

Prasanna, P. K. (2011). Impact of corporate governance regulations on indian stock market volatility and efficiency. *International Journal of Disclosure and Governance, 10*(1), 1-12.

Ramasastri, A. S. (2000). Market efficiency in the nineties: Testing through unit root. *Prajnan, 28*(2), 155-162.

Samuelson, P. (1965). Proof that properly anticipated prices fluctuate randomly. *Industrial Management Review, 6*(2), 41-49.

Siddiqui, T. A., & Narula, I. (2013). Evaluating weak form of efficiency of Indian stock market: A behavioural approach. *Pranjana, 16*(2), 17-31.

Singh, R. (2010). Globalisation and capital market reforms: Impact on efficiency of the Indian stock market. *Decision, 37*(2), 5-29.

Srinivasan, P. (2011). Stock Market Efficiency and Common Stochastic Trends: A case of NSE and BSE. *The IUP Journal of Financial Risk Management, 8*(2), 41-55.

Thomas, A. E., & Kumar, M. C. (2010). Empirical evidence on weak form efficiency of Indian stock market. *ASBM Journal of Management, 3*(1&2), 89-100.

Totala, Saluja, Bapna, I., & Sood, V. (2013). Testing random walk hypothesis in Indian stock market: A study of national stock exchange indices. *Anvesha, 6*(3), 49-59.

Tripathi, V., & Kumar, A. (2014). Sectoral efficiency of the Indian stock market and the impact of global financial crisis. *Journal of Commerce and Accounting Research, 3*(4), 15-27.

Employee Engagement In Retail Industry: A Conceptual Framework

C. Maria Rex Sugirtha*, I. Casely Sneha**

Abstract *In the Millennial era, satisfying the needs of stakeholders is not always easy. As their needs vary, the ways companies respond to each of them also varies. Customers demand for quality products and services from companies that may or may not belong to the country they live. They get satisfaction only when those requirements are properly recognized and fulfilled. The primary goal of any firm is to attract and retain its customers. So that, it may sustain among the market rivalry belonging to the same industry in which the firm operates. The effort towards sustainability starts from within. Making internal customers aligned with the objectives of organization enables it to define its competitive position. Along with this alignment, the organization must also look into the expectations employees have towards their employer. Employees become engaged only when they start believing that their needs count and they are being recognized by their employer. This article confers the need for employee engagement in retail industries since employers of today's business believe that engaged employees empower the organization and also discusses the items of Gallup Q12 Questionnaire in measuring Employee Engagement.*

Keywords *Employee Engagement, Retail Industry and Millennial Generation*

INTRODUCTION

Today's Business Environment is extremely dynamic because of the advancement in technology and innovation, changes in customer behaviour, shortage of human skills and the other challenges organizations face every day. The prime challenge organizations face is managing Millennial Generation and engaging them at work. According to the report of Morgan Stanley Research, more than 400 million Millennials-born after 1982-account for a third of India's population and 46 percentage of its workforce. They are youngsters but they are the generation who already the chief wage earners in most family unit. Income of this millennial generation is contributing to 70% of total household income. Understanding what the Millennials expects from their employers matters the most. Millennial generation seeks job that is interesting and meaningful and they try to understand how they are valued in the business which they belong to. Millennials wants the management to be transparent in all its communications and to give them a way that aligns individual's objectives with the overall organizational vision. The key for this alignment is Employee engagement at work. The logical and emotional connect of employees towards their organization is called employee engagement that enables them providing discretionary effort in achieving organizational intents. Along with the engagement efforts, the employers must provide them right environment in which employees do not find any barriers to perform. This enablement and engagement ignite employees, especially working in the retail industry, feel motivated to make better service experiences among customers.

RETAIL INDUSTRY IN INDIA

Retail industry in India is one of the most vibrant and fast growing industries due to variety of new rivalries from the domestic as well as the global market. In retail space, 5th largest universal destination is India. According to a report of India Brand Equity Foundation (IBEF), retail industry contributes 10 percentage towards India's GDP and 8 percentage of the country's total employment. India is expected to grow at a Compound Annual Growth Rate (CAGR) of 10 per cent to US$ 1.6 trillion by 2026, report said. Replacing China, India becomes the most promising retail markets supported by growth in the economy, increase in consumption rate, increase literacy rate among the population and increase in middle class consumers' spending.

ENABLERS OF EMPLOYEE ENGAGEMENT

Since the traditional workforce has changed, the employers must understand how they need to deal with new generations of job market. The Millennials are collaborative, teamwork oriented and purpose driven. When employers enable them

* Assistant Professor, Xavier Institute of Business Administration, St. Xavier's College (Autonomous), Palayamkottai, Tamil Nadu, India. Email: sugiconicius12@gmail.com

** Assistant Professor, Xavier Institute of Business Administration, St. Xavier's College (Autonomous), Palayamkottai, Tamil Nadu, India. Email: casely26@gmail.com

in obtaining their objective, Millennials in turn help their employers achieve their organization goals. For creating Millennial friendly environment, workplace needs to be structured if not the Millennials may become intensive job hoppers.

Creating a culture of information accessibility brings interest among Millennial workforce by making them utilize and subsidize what they seize from all the available information and thus they become output oriented and not task oriented generation. As workplaces are getting dominated with tech-savvy Millennials, the business must see what internal communication tools like Live chat, Collaborative technologies and Social Media App for traditional emails can be used at work. Millennials want the entire processes, policies, techniques and jobs to become simplified so that they do not feel that they waste their time on small stuffs. The new Gen workforce is self-reliant and so the organizations must design enablement mechanisms in such a way that is simple to use and adapt. This generation do not want their employers to have traditional working hours instead they value and demand for flexi-time policy.

Employee Engagement is a holistic construct which provokes employees feel cognitively and emotionally connected to their jobs, managers, co-workers and the organization's vision, mission and objectives so that they are able to go extra mile in their assignments and thus vigorously contributing their employer to succeed and outperform their competitors. This helps organization achieve greater productivity and sales, increased profitability and increased customer satisfaction. Therefore Employee engagement is a key enabler of a potential successful employer.

In this modern era of business, engaged workforce, emotional connect that the employee has towards their organization and its objectives, is the essential factor that distinguishes the organization from other business rivals. Engaged employees are not only creating productive workplace but also value to the stakeholders belonging to the organization they work for. Satisfied employees do not mean to be an engaged employees as happy employees are different from engaged employees.

The level of engagement among employees and the engagement practices the organizations follow may differ from industry to industry, but engaging employees is the need of the hour. In the ever evolving retail industry, no longer the employee engagement is an entitlement of HR but also of the leadership of organization. Leaders have their own style of engaging employees to achieve the best in career. Listening to ideas the Millennials suggesting for major business decisions fosters them to feel valued and responsible. That kind of flow-friendly environment enables leaders to build harmonious working relationship.

MEASURING EMPLOYEE ENGAGEMENT

Gallup Organization has identified twelve questions that measure the important elements of employee engagement that impacts business outcome. The 12 Questions address concerns such as, understanding what is expected of employee at work, provided with the resources to perform job well, recognition and appreciation, praise to progress, being listened to and relationships at work. The result of this Q12 survey is linked to business outcomes such as profitability, productivity, employee retention, and customer satisfaction and loyalty. The Gallup's Employee Engagement measurement Questions are,

Q 1. I know what is expected of me at work

This measures how well the work group is aware of the expectation the employers have for them in achieving organizational goals. The basic thing any employer must do is to make employees understand what is the nature and goal of their job so that they will start setting their own goals aligned with organizational goals. This would make them accountable for what they are doing at work.

Q 2. I have the materials and equipment I need to do my work right

Response to this question is positive only when employees are provided with materials and equipment to do work right. But what Materials and Equipment mean to them really matters. In turn, the response to availability of materials and equipment enables the organization to predict employee retention, safety, and productivity.

Q 3. At work, I have the opportunity to do what I do best every day

This item measures whether the employees are made aware of what potential skills and innate talents each one of them have and also what skills and innate talents their associates have. By allowing employees to do self-analysis, they would identify and utilize the opportunities that would best suit their unique skills and talents. A positive response assures that the knowledge of others skills and talents would build a good team spirit and utilize the available complementary skills.

Q 4. In the last seven days, I have received recognition or praise for doing good work

Employees expect praise for the tasks they accomplish each day. When they get instantaneous feedback, praise and recognition for the work they do that might result in purpose-driven work environment and might act as a positive reinforcement encouraging the employees engage in same behaviour repeatedly.

Q 5. My supervisor, or someone at work, seems to care about me as a person

Caring individual means that the employees are listened to. Job hoppers leave managers or leaders who do not care, not organizations. Trust is the significant attribute that is assured if employees are up for this question.

Q 6. There is someone at work who encourages my development

Development is not just getting promoted but it means how employees are growing within the assigned roles. This starts with the recognition of individuals' innate talents and skills with the suitable opportunities created by the employers.

Q 7. At work, my opinions seem to count

Employees feel valued when they believe that their opinions and ideas are accounted. Leaders must encourage employees to express their ideas towards business decision making so that they may feel they make significant contribution to their organization. Consulting employees before making critical decisions brings success to the organization.

Q 8. The mission or purpose of my company makes me feel my job is important

When the employees have sense of purpose they will be able to give their discretionary efforts in creating stakeholders value. This sense of purpose is cultivated through the values people share within the organization's premises. The employees must be aware of the mission for which they work for and the ways in which they can contribute in attaining vision.

Q 9. My associates or fellow employees are committed to doing quality work

When the flow of communication is good among employees then the organization is able to stimulate quality interactions. Employees having a greater sense of cohesiveness believe that they can contribute towards greater productivity and quality of work.

Q 10. I have a best friend at work

Employees look for social institution where they are able to build a trusting relationship. The trust enhances the way they work by helping each other evaluate their performances which result in quality of work.

Q 11. In the last six months, someone at work has talked to me about my progress

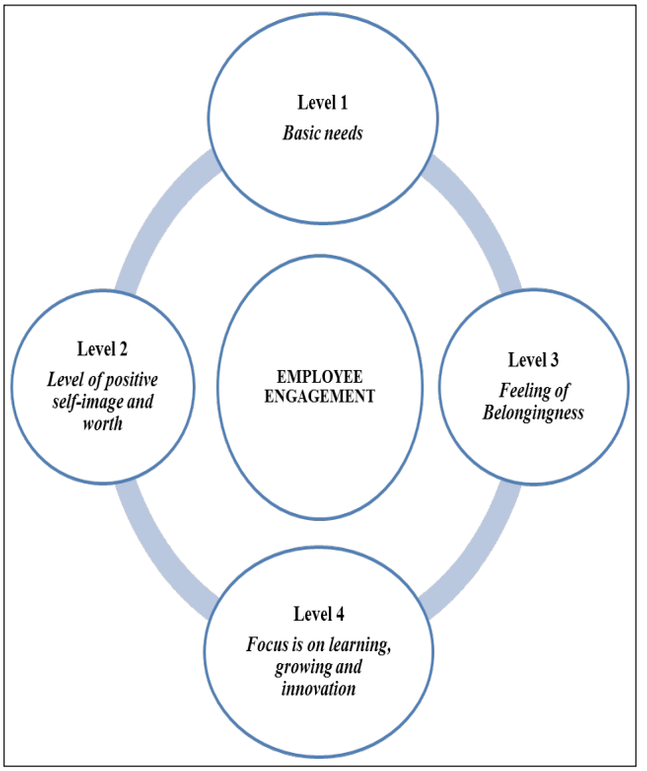
Employees always need to know where they are going and what kind of progression they have had in their career. Periodic appraisal and reward system motivates employees to have confidence in their accomplishments of individual and organizational objectives.

Q 12. This last year, I have had opportunities at work to learn and grow

Employees have to be given with the best opportunities that suit their progression and this is linked back to the organizational performance. The learning brings innovation in people and makes them grab the opportunities put in front of them. Therefore the organization must be a place of learning, growing and innovation.

FORBRINGER ANALYSIS OF GALLUPS' Q12 QUESTIONNAIRE FOR MEASURING EMPLOYEE ENGAGEMENT

Forbringer has grouped 12 questions of Gallup's Employee Engagement Questionnaire into four levels. Forbringer argued that when employees participating in the survey answer all the 12 questions positively. Hence it is inferred that they are engaged employees employing best qualities at work every day with a strong focus and a shared sense of determination.



Level 1: (What do I Get - Q01 to Q02)

The rudimentary need of an employee in a work is to understand what is expected from him. The availability of the expected materials and equipment will help employees to bridge what is expected of them and the actual performance.

Level 2: (What do I give? - Q03 to Q06)

The freedom to execute the tasks that one can do with perfection will make him/her feel contented. This sense of contentment is improved when someone at work encourages their development; supervisor cares and recognizes them for doing good work.

Level 3: (Do I belong here? - Q07 to Q10)

When the opinions seem to be counted, employees feel that they are important to the organization and this enriches the feeling of recognition. When everyone in the organization is recognised equally, all employees will render quality work with complete commitment.

Level 4: (How can we all grow? - Q11 and Q12)

The practice of giving continuous feedback on progression enables individuals to know their actual performance and triggers learning. This acts as a catalyst for employees' intellectual growth resulting in innovation.

CONCLUSION

It is concluded from the above discussion that when the financial capital is invested on human resources it becomes the capital differentiator of the firm. The sales persons are highly responsible for the inflow of returns of any organization's capital. Therefore, when the needs of the employees in the retail outlets are met, they show high level of loyalty towards the organization and the people in it and they will be helpful for the organization in fulfilling customers' wants. As per the report of CNBC (Consumer News and Business Channel), engaged employees bring in 69% more revenue than disengaged employees. This clearly states that companies with low engagement scores also suffer with less productivity. Therefore engaged workforce empowers the organization.

REFERENCES

Kotni, V. V. D. P., & Karumuri, V. (2014). An empirical study on the identification of salesforce engagement drivers: A study of selected retail outlets in Visakhapatnam. *Prabandhan: Indian Journal of Management, 7*(7), 31-45.

Prenderville, S. (2011). *A measurement of the level of employee engagement using Gallup's Q12 questionnaire in an Irish Financial Institution currently undergoing substantial organisational change* (Bachelor Degree dissertation). Retrieved from http://trap.ncirl.ie/587/1/susannprenderville.pdf.

Bates S. 2004. Getting engaged. *HR Magazine, 49*(2), 44-51.

India Brand Equity Foundation (IBEF). 2017. Retrieved from https://www.ibef.org/industry/retail-india.aspx [accessed on 21 September 2017].

Madhusudan. P. (2017). Retrieved from https://www.peoplematters.in/article/strategic-hr/keep-employees-engaged-empowered-and-motivated-15979 [Accessed on 21 September 2017].

Gupta, B. (2017). Retrieved from https://www.peoplematters.in/article/talent-acquisition/talent-acquisition-ahead-of-the-game-16175 [Accessed on 21 September 2017].

Stanley, M. (2017). Retrieved from https://www.forbes.com/sites/morganstanley/2017/06/23/indias-millennials-to-drive-growth-in-four-key-sectors/#989c1e74f271 (accessed on 24 September 2017].

Khanna, S. (2017). Retrieved from https://www.peoplematters.in/article/employee-engagement/heres-what-you-can-do-to-help-your-employees-stay-engaged-16439 [accessed on 24 September 2017].

Khanna, S. (2017). Retrieved from https://www.peoplematters.in/article/employee-engagement/new-age-factors-of-engagement-you-should-know-about-16348 [accessed on 24 September 2017].

Madhusudan. P. (2017). Retrieved from https://www.peoplematters.in/article/employee-engagement/the-rise-of-hr-analytics-to-improve-employee-engagement-16438 [Accessed on 26 September 2017].

Impact of Sports Celebrities Endorsements on Consumer Behaviour of Low and High Involvement Consumer Products

S. Shahul Hameed*, S. Madhavan**

Abstract *A Practices of using celebrities as spokesperson for commercialized products are continuously favored towards the effort of marketing and positioning. The popularity of sports celebrity advertising is founded upon advertiser's belief on message credibility by well-known personalities to achieve greater attention, recall and behavioral intention among consumers. The present study assesses the Consumer level of interest on sports and attitude towards sports celebrity advertisement and perceived risk on the underlying purchase intention of Tirunelveli consumers towards the low and high involvement consumer goods, by exploring the mediating roles of attitude toward advertisement and perceived risk between interest level on sports and purchase intention. The influence of endorser's characteristics and cultures on consumer's behavioral intention is explained through the applications of the Theory of Identification (Kelman, 1961, 2006) and the Meaning Transfer Model (McCracken, 1989) in this study. Descriptive findings collected from 450 potential consumers have suggested attitude toward advertisement and perceived risk into transactional purchase intention. From the study, researcher has found that attitude towards advertisement of low and high involvement products are nearly same but consumer behavior of purchase intention is differ from low and high involvement consumer goods.*

Keywords *Sports Celebrity, Awareness and Interest Level, Attitude Towards Advertisement and Purchase Intention*

INTRODUCTION

Famous people have always been made excellent salesmen. Presenting a familiar face is one of the fastest and easiest way for companies to create brand associations in the minds of consumers. When a widely loved actor or a heroic sports figure endorses a product, that product gains immediate credibility**.**

Celebrity marketing can be a viable advertising strategy for companies both large and small and across all industries. Up to 15% of all advertisements that run in America feature a celebrity endorser.

Companies hoping to work with a celebrity endorser must be willing to pay a premium price for their services. The greatest disadvantage of celebrity marketing is the high cost of securing celebrity partnerships. Advertising media such as TV commercials can be expensive; therefore smaller companies can focus on more affordable options like print ads or autograph-signing events. A company hoping to work with a celebrity must balance risk and reward, both of which can be significant.

There are several reasons that a company might choose to use celebrity marketing strategy. A new product can easily be introduced to consumers if they feel familiar and comfortable with the famous face endorsing it.

A consumer product is a product bought by final consumers for personal consumption. But not every consumer product is the same. Four different types of consumer products can be identified. Marketers usually classify consumer products into these 4 types of consumer products: Convenience products, Shopping products, Specialty products and unsought products.

REVIEW OF RELATED LITERATURE

Attitude toward Advertisement as the Mediator: Erdogan, Baker & Tagg (2001) proposed that effective advertisement through celebrity endorsements possess positive impact on actual purchases and sales. Thus, indirect relationship between celebrity endorsement and potential behaviors within the marketplace is present through favorable advertising effect. Demonstrated by Wu, Linn, Fu & Sukoco (2012), direct influential relationship is significant between perceived advertisement credibility and attitude toward advertisement, attitude toward advertisement and intention for purchase. Further studies supports that purchase intention can be affected through effective advertising (Sallam & Wahid, 2012). Supportive results through the direct relationship between attitude toward advertisement and purchase intention is also demonstrated by Goldsmith et al. (2000), as well as Khairullah & Khairullah (1999), bypassing the intervention of brand effect.

* Research Scholar, Dept. of Management Studies, M.S University, Tamil Nadu, India.
** Associate Professor, Dept. of Management Studies, M.S University, Tamil Nadu, India. Email: madhavan@msuniv.ac.in

Product involvement: Friedman and Friedman (1979) studied if the effectiveness of the endorser type is dependent on the product type. It was hypothesized that the subjects will evaluate more favorably, the advertisements featuring a celebrity endorser, than those using an expert or a typical -consumer endorser, in the promotion of the products high in psychological and/or social risk. In this type of product, the celebrity will be significantly more effective in inducing purchase intentions. For financial products, a professional expert endorser would be more effective than a typical consumer endorser. For the products low in all five types of risk (psychological, social, financial, performance, physical) a typical consumer would be more effective. Any product being endorsed by a celebrity would be expected to sell at a higher price. Regardless of the type of the product, celebrity will be more effective in sustaining the recall of the advertisement. The sample consisted of middleclass housewives. The results revealed that the product - endorser interaction did occur. The product related to social risk for e.g. (jewellery) achieved highest evaluations, when endorsed by a celebrity. A product related to performance risk achieved highest evaluations, when endorsed by an expert. For a product low in all five types of risk, for e.g. (cookies) highest evaluations were obtained when endorsed by a typical consumer. Using a celebrity did not impart a high price image. The study also confirmed that regardless of the type of the product, the celebrity endorser was more effective in sustaining recall for the brand and advertisement.

OBJECTIVES OF THE STUDY

- To measure the direct and indirect effects of interest level on sports (IV) on purchase intention (DV) through attitude towards advertisement (M1) and perceived risk (M2) on Low involvement consumer products (W).
- To measure the direct and indirect effects of interest level on sports (IV) on purchase intention (DV) through attitude towards advertisement (M1) and perceived risk (M2) on high involvement consumer products (W).
- To find out the changes of consumer behaviour between Low involvement and high involvement consumer products.

RESEARCH DESIGN

The researcher has applied the probability sampling method to collect the primary data. Consequently, he has applied the stratified random sampling method to obtain the responses from consumer goods purchaser of students and lecturers of colleges in Tirunelveli. A sample size of 500 respondents was selected on the stratified random sampling method. Out of 500 respondents chosen for the study, 450 of them were found usable. The study has been done on the basis of both primary as well as secondary sources of data. The data collected among the students and lecturers of arts and science colleges in Tirunelveli district through survey constitute primary data and information gathered through books, journals, magazines, reports, dailies constitute the secondary data. The data collected from both the sources were scrutinized, edited and tabulated. Normality, linearity, Reliability and validity were checked. Further, the processed data was analyzed using Process Macro in SPSS and other computer packages.

DATA AND RESULT ANALYSIS

To estimate the total, direct and indirect effects of interest level on sports (IV) on purchase intention (DV) through mediators of attitude towards advertisement (M1) and perceived risk (M2) on Low involvement consumer products (W).

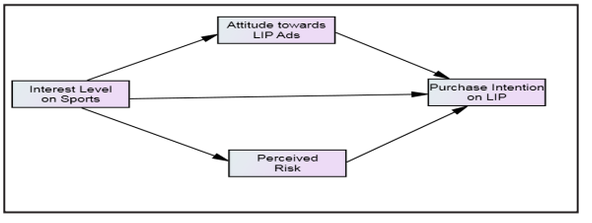


Fig. 1: Path ysis for Low Involvement Products

It reveals that interest on sports have a positive relationship with Attitude towards low involvement product advertisement and that interest level increase by 1 unit leads to an increase in attitude towards advertisement by 3.098 units. On the other hand, interest level on sports increase by 1 unit leads to a decrease in perceived risk by 0.293 units for low involvement products.

Positive attitude towards LIP advertisements act as a mediator between interest level and purchase intention of LIP. The indirect path has a positive effect on purchase intention and increase the unit level from 0.742 (direct effect) to 1.970. So, here the attitude towards LIP advertisement acts as an enhancer mediator and it plays an important role in this path to boost purchase intention of low involvement products.

Likewise, perceived risk acts as another mediator between interest level on sports and purchase intention of low involvement products. The indirect path has a negative effect on purchase intention and decrease the unit level by 0.129. So, here the perceived risk act as a suppressor mediator and it plays a negative role in this path to reduce purchase intention of low involvement products.

Even though, risk plays a significant mediator the attitude towards low involvement products advertisement also has significant effect than risk. So for low involvement products, risk plays an insignificant role than attitude towards advertisements.

```
**************************************************************************
Model = 4
Y = INT_LIP (purchase Intention on Low Involvement product)
X = INTREST (Interest Level on Sports)
M1 = ATTI_LIP (Positive attitude towards Celebrity's Ad.)
M2 = RISKLIP  ( Perceived Risk on Low Involvement product)
**************************************************************************
Outcome: ATTI_LIP
Model Summary
  R      R-sq       MSE         F       df1       df2         p
.967      .936    27.587  5986.926     1.000   448.000      .000
Model
coeff        se         t         p      LLCI      ULCI
constant    -3.649      .817    -4.467      .000    -5.255    -2.044
INTREST      3.098      .040    77.375      .000     3.019     3.177
**************************************************************************
Outcome: RISKLIP
Model Summary
R      R-sq       MSE         F       df1       df2         p
.763      .583     2.580   440.927     1.000   448.000      .000
Model
coeff        se         t         p      LLCI      ULCI
constant    17.974      .274    65.684      .000    17.436    18.512
INTREST      -.293      .014   -20.998      .000     -.321     -.266
**************************************************************************
Outcome: INT_LIP
Model Summary
R      R-sq       MSE         F       df1       df2         p
.983      .967     9.894  7876.599     3.000   446.000      .000
Model

coeff        se         t         p      LLCI      ULCI
constant   -10.497     2.314    -4.537      .000   -15.044    -5.949
ATTI_LIP      .636      .047    13.531      .000      .544      .728
RISKLIP       .439      .139     3.170      .002      .167      .711
INTREST       .741      .132     5.627      .000      .482     1.000
```

```
************************** TOTAL EFFECT MODEL ****************************
Outcome: INT_LIP
Model Summary
  R      R-sq       MSE         F       df1       df2         p
.969      .940    17.942  8941.051     1.000   448.000      .000
Model
coeff        se         t         p      LLCI      ULCI
constant    -4.925      .611    -8.067      .000    -6.125    -3.725
INTREST      2.583      .027    94.557      .000     2.529     2.637
***************** TOTAL, DIRECT, AND INDIRECT EFFECTS ********************
Total effect of X on Y
Effect      SE         t         p      LLCI      ULCI
2.583      .027    94.557      .000     2.529     2.637
Direct effect of X on Y
Effect      SE         t         p      LLCI      ULCI
.741      .132     5.627      .000      .482     1.000
Indirect effect of X on Y
Effect   Boot SE  BootLLCI  BootULCI
TOTAL        1.841      .120     1.606     2.070
ATTI_LIP     1.970      .143     1.699     2.264
RISKLIP      -.129      .041     -.208     -.049
(C1)         2.099      .172     1.780     2.458
Partially standardized indirect effect of X on Y
Effect   Boot SE  BootLLCI  BootULCI
TOTAL         .107      .008      .092      .122
ATTI_LIP      .114      .009      .097      .134
RISKLIP      -.007      .002     -.012     -.003
Completely standardized indirect effect of X on Y
Effect   Boot SE  BootLLCI  BootULCI
TOTAL         .691      .046      .601      .780
ATTI_LIP      .739      .054      .636      .851
RISKLIP      -.048      .015     -.078     -.019
Ratio of indirect to total effect of X on Y
Effect   Boot SE  BootLLCI  BootULCI
TOTAL         .713      .049      .617      .808
ATTI_LIP      .763      .058      .653      .881
RISKLIP      -.050      .016     -.081     -.019
```

```
Ratio of indirect to direct effect of X on Y

Effect   Boot SE  BootLLCI  BootULCI

TOTAL       2.484      .673     1.609     4.204

ATTI_LIP    2.657      .738     1.708     4.597

RISKLIP     -.174      .082     -.385     -.062


Normal theory tests for specific indirect effects

           Effect        se         Z         p

ATTI_LIP    1.970      .148    13.327      .000

RISKLIP     -.129      .041    -3.131      .002
```

To estimate the total, direct and indirect effects of interest level on sports (IV) on purchase intention (DV) through mediators of attitude towards advertisement (M1) and perceived risk (M2) on high involvement consumer products (W).

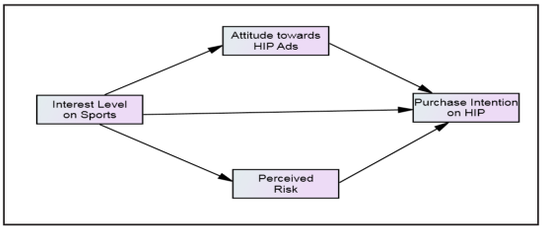


Fig. 2: Path analysis for High Involvement products

It reveals that interest on sports have a positive relationship with Attitude towards high involvement product advertisement and that interest level increase by 1 unit leads to an increase in attitude towards advertisement by 2.729 units. On the other hand, interest level on sports increase by 1 unit leads to decrease in perceived risk by 0.591 units for high involvement products.

Positive attitude towards high involvement product advertisements act as a mediator between interest level and purchase intention of high involvement Products. The indirect path has no significant impact. So, here the attitude towards high involvement product advertisement is not a mediator and it does not play an important role in this path to boost purchase intention of high involvement products.

Likewise, perceived risk acts as another mediator between interest level on sports and purchase intention of high involvement products. The indirect path has significant impact. So, here the perceived risk towards high involvement product advertisement is a significant mediator. Risk affects inversely the positive attitude towards high involvement products purchase intention.

```
**************************************************************************

Model = 4

Y = INT_HIP (purchase Intention on High Involvement product)

X = INTREST (Interest Level on Sports)

M1 = ATTI_HIP (Positive attitude towards Celebrity's Ad.)

M2 = RISKHIP (Perceived Risk on High Involvement product)

**************************************************************************
```

```
Outcome: ATTI_HIP
Model Summary
         R      R-sq       MSE         F       df1       df2         p
      .958      .919    27.700  5165.850     1.000   448.000      .000
Model
coeff        se         t         p      LLCI      ULCI
constant    -4.879      .783    -6.235      .000    -6.417    -3.341
INTREST      2.729      .038    71.874      .000     2.654     2.804
**************************************************************************
Outcome: RISKHIP
Model Summary
         R      R-sq       MSE         F       df1       df2         p
      .905      .818     3.256  1811.811     1.000   448.000      .000
Model
             coeff        se         t         p      LLCI      ULCI
constant    29.520      .309    95.399      .000    28.912    30.128
INTREST      -.591      .014   -42.565      .000     -.619     -.564

**************************************************************************
Outcome: INT_HIP
Model Summary
         R      R-sq       MSE         F       df1       df2         p
      .956      .914    16.874  2218.471     3.000   446.000      .000
Model
             coeff        se         t         p      LLCI      ULCI
constant    65.761     2.771    23.732      .000    60.315    71.207
ATTI_HIP      .013      .042      .322      .748     -.068      .095
RISKHIP     -2.174      .095   -22.966      .000    -2.360    -1.988
INTREST       .647      .101     6.419      .000      .449      .844
************************* TOTAL EFFECT MODEL ****************************
Outcome: INT_HIP
Model Summary
         R      R-sq       MSE         F       df1       df2         p
      .913      .833    32.504  2196.787     1.000   448.000      .000
Model
             coeff        se         t         p      LLCI      ULCI
constant     1.523      .860     1.770      .077     -.168     3.214
```

```
INTREST      1.969      .042    46.870      .000     1.886     2.051
***************** TOTAL, DIRECT, AND INDIRECT EFFECTS ********************
Total effect of X on Y
    Effect        SE         t         p      LLCI      ULCI
     1.969      .042    46.870      .000     1.886     2.051
Direct effect of X on Y
    Effect        SE         t         p      LLCI      ULCI
      .647      .101     6.419      .000      .449      .844
Indirect effect of X on Y
            Effect   Boot SE  BootLLCI  BootULCI
TOTAL        1.322      .109     1.114     1.537
ATTI_HIP      .037      .114     -.187      .263
RISKHIP      1.286      .072     1.147     1.431
(C1)        -1.249      .157    -1.562     -.947
Partially standardized indirect effect of X on Y
            Effect   Boot SE  BootLLCI  BootULCI
TOTAL         .095      .007      .081      .109
ATTI_HIP      .003      .008     -.014      .019
RISKHIP       .092      .004      .084      .101
Completely standardized indirect effect of X on Y
            Effect   Boot SE  BootLLCI  BootULCI
TOTAL         .613      .046      .520      .704
ATTI_HIP      .017      .053     -.087      .122
RISKHIP       .596      .028      .543      .651
Ratio of indirect to total effect of X on Y
            Effect   Boot SE  BootLLCI  BootULCI
TOTAL         .672      .052      .569      .772
ATTI_HIP      .019      .058     -.096      .134
RISKHIP       .653      .032      .592      .715
Ratio of indirect to direct effect of X on Y
            Effect   Boot SE  BootLLCI  BootULCI
TOTAL        2.045      .537     1.319     3.385
ATTI_HIP      .057      .205     -.229      .554
RISKHIP      1.989      .372     1.462     2.902
Normal theory tests for specific indirect effects
            Effect        se         Z         p
ATTI_HIP      .037      .114      .322      .748
```

```
RISKHIP      1.286      .064    20.207      .000

Specific indirect effect contrast definitions

(C1)   ATTI_HIP   minus      RISKHIP
```

DISCUSSIONS AND CONCLUSION

From the study, researcher found some important results. The consumers' attitude towards advertisement is same on both low involvement consumer goods and high involvement consumer goods. But, when it comes to purchase intention, behavior of the respondents is different. That is, in low involvement consumer goods the consumers' purchase intention is high, but in high involvement consumer goods the purchase intention of the respondents are very low.

Hence, sports celebrities' endorsements attract consumers and incline the attitude towards advertisements. It may help to create awareness about products and recall the particular brand's products. Even it helps to increase the purchase intention of low involvement consumer goods but it is not effective for increasing the purchase intention of high involvement consumer goods. So, the corporate may use the sports celebrities for their brand promotion of low involvement consumer goods rather than using them for high involvement consumer goods. If they are ready to use sports celebrities for high involvement products, use them for new products, i.e., introduction stage. This will be effective because, the sports celebrity's help to create awareness that incline attitude towards advertisements and recall the products easily, even though they may not boost the purchase intention. It helps to position their products easily in the consumer mind.

REFERENCES

Aaker, D. A., & Myers, J. G. (1987). *Advertising management* (3rd Ed.). Engiewood Cliffs, New Jersey: Prentice-Hall, Inc.

Erdogan, B. Z., & Baker, M. J. (1999). Celebrity endorsement: Advertising agency managers' perspective. *Cyber-Journal of Sport Marketing, 3,* 33.

Friedman, H. H., & Friedman, L. (1979). Endorser effectiveness by product type. *Journal of Advertising Research,* 19, October/November, pp.63-71.

Goldsmith, R. E., Lafferty, B. A., & Newell, S. J. (2000). The impact of corporate credibility and celebrity credibility on consumer reaction to advertisements and brands. *Journal of Advertising, 29*(3).

Howard, A. (1979). More than just a passing fancy. *Advertising Age, 50,* Guly30), p.S-2.

McCracken, G. (1989). Who is the celebrity endorser? Cultural foundations of the endorsement process. *Journal of Consumer Research, 16*(3), 310-321.

Misra, S. (1990). Celebrity spokesperson and brand congruence: An assessment of recall and affect. *Journal of Business Research, 21,* 159-173.

Petty, R. E., Cacioppo, J. T., & Schumann, D. (1983). Central and peripheral routes to advertising effectiveness: The moderating role of involvement. *Journal of Consumer Research, 10.*

Silvera, D. H. & Austad, B. (2004). Factors predicting the effectiveness of celebrity endorsement advertisements. *European Journal of Marketing, 38*(11), 1511-2, 1520.

Tripp, C., Jensen, T. D., & Carlson, L. (1994). The effect of multiple product endorsements by celebrities on consumer attitudes and intentions. *Journal of Consumer Research,* 20(4), 535-547.

Walker, M., Langmeyer, L., & Langmeyer, D. (1992). Celebrity endorsers: Do you get what you pay for? *Journal of Services Marketing, 6*(4), 35-42.

The Attitude of Working Women Towards Online Purchase in Tirunelveli Corporation

Lourdes Poobala Rayen*, J. Briskillal**

INTRODUCTION

Today, online purchasing is becoming more and more prevalent in our society. People find it easier to purchase online than outside their home because it is simply more convenient. People live extremely busy lives and purchasing online has become a very simple and easy process. No longer do people have to leave the comfort of their own home or wait in long lines at stores. Online shopping includes buying clothes, gadgets, shoes, appliances, or even daily groceries. With a few clicks, they can have products ordered and delivered to their homes within a few days. This is extremely handy for people who work long days or have to take care of their children. Online shopping is becoming the new wave for the future.

However, this process can be scary for first time users and can leave consumers skeptical about the safety and protection of their personal information. First time online shoppers might be afraid to make the change from personal to digital. Many consumers fear the possibility of problems such as theft by hackers, hidden costs etc., because they are not dealing with individuals in a retail environment. These problems do occur with online shopping but there are certain steps and measures that can be taken to reduce these problems. The digital firm is a way for everyone to make their lives easier and less stressful. There are many advantages of online shopping; this is the reason why online stores are a booming business today.

STATEMENT OF THE PROBLEM

A large number of firms and organizations are exploiting and creating business opportunities on the internet indicate the rapid growth in the field of virtual shopping. With this emerging field of shopping the interest of marketers is also increasing in studying what actually motivates consumers to shop online. Fierce competitions among online sellers have forced them to gain competitive edge in the field of virtual shopping. As online shopping is the new medium in order to gain competitive edge in the market, marketers need to know the working women. So it is important to analyze and identify the factors which influence working women to shop online in order to capture the demands of working women. Other than the factors which influence working women to shop online, online shopper's demography in terms of age, income and education is equally important to define their strategies accordingly.

OBJECTIVES OF THE STUDY

- To study the sources and reason for purchasing things online.
- To examine the opinion about the website used for online purchase.
- To analyze the level of satisfaction towards online purchase.

COLLECTION OF DATA

The primary data has been collected directly from the working women by using structured interview schedule. Secondary data necessary for the study have been collected from journals, magazines, publications, reports, books, articles, research papers, websites, etc., The data collected were used for the preparation of the tables designed to present this data in a meaningful manner and for the application of statistical tools and for further interpretation. The study has been conducted during July 2016. **C**onvenient Sampling Method was used to collect required data from the sample respondents. In this study only 200 working women were taken as sample.

* Head & Associate Professor, Dept. of Commerce, St. Xavier's College (Autonomous), Palayamkottai, Tamil Nadu, India.
Email: lourdes.sxc@gmail.com
** Research Scholar, Dept. of Commerce, St. Xavier's College (Autonomous), Palayamkottai, Tamil Nadu, India.

SOURCES OF AWARENESS ABOUT ONLINE SHOPPING

Sources of awareness about online shopping include friends and relatives, TV advertisement, Apps, newspapers, magazines and websites. The Table 1 shows the sources through which the respondents getting the awareness about online shopping.

Table 1: Sources of Awareness about Online Shopping

S.No	Particulars	No. of the Respondents	Percentage
1.	Friends & Relatives	65	32.5
2.	TV advertisement	65	32.5
3.	Apps	23	11.5
4.	Newspapers	14	7.0
5.	Magazines	19	9.5
6.	Websites	13	6.5
7.	Others	1	0.5
	Total	200	100

Source: Primary Data

Table 2 shows the distribution of the respondents on the basis of their awareness about online shopping. 65 (32.5 per cent) respondents have collected the information about the online shopping through friends & relatives and TV advertisement. 23 (11.5 per cent) respondents have got the awareness about the online shopping through Apps, 19 (9.5 per cent) respondents have come to know the online shopping through magazines, 14 (7.0 per cent) respondents came to know online shopping through news papers and 13 (6.5 per cent) respondents said that they came to know the online shopping through Websites. Table 5.1 reveals the role of friends, relatives and TV advertisements.

RESPONDENTS PREFERENCE OF WEBSITE TO PURCHASE PRODUCTS THROUGH ONLINE

Respondents prefer different online websites such as Amazon, Flip kart, Snap deal, ebay, Jabong and Myntra to purchase products namely life style, electronics, home appliances, TVs & appliance and books. The following Table 2 shows the distribution of online website preferred by the respondents to purchase products.

Table 2: Respondents Preference of Website to Purchase Products through Online

S. No	Particulars	Amazon	Flip Kart	Snap Deal	EBay	Jabong	Myntra	Total
1.	Life style	162	20	10	3	-	5	200
2.	Electronics	30	142	17	6	5	-	200
3.	Home Appliances	76	33	79	9	3	-	200
4.	TVs & appliance	57	70	34	35	4	-	200
5.	Books & others	79	36	40	21	23	1	200

Source: Primary Data

Table 2 shows that majority (81 per cent) of the respondents prefer Amazon website for life style products. 71 per cent of the respondents prefer Flip Kart for the purchase of electronic products. 35 per cent of the respondents prefer Flip Kart for the purchase of TV and other appliances.

REASONS FOR PURCHASING THINGS THROUGH A PARTICULAR ONLINE SITE

Respondents purchase things through a particular online site for different reasons namely better comparison, wider selection, better price, review from other shoppers, time saving and easy return. The following Table 3 shows the reasons for the respondents to purchase things through a particular online site.

Table 3 Reasons for Purchasing Things through a Particular Online Site

S. No	Particulars	Amazon	Flip Kart	Snap Deal	EBay	Jabong	Myntra	Total
1.	Better comparison	161	26	8	1	3	1	200
2.	Wider selection	31	125	33	7	4	-	200
3.	Better price	93	53	42	9	3	-	200
4.	Review from other shoppers	108	39	29	7	11	6	200
5.	Time saving	64	64	32	17	22	1	200
6.	Easy Return	62	77	17	19	11	14	200

Source: Primary Data

Table 3 shows that majority of the respondents purchase products through Amazon for better comparison, better price, and review from other shoppers and time saving. Flip Kart is preferred by majority of the respondents for the wider selection and time saving. It is clear from Table that Amazon website is preferred by majority of the respondents due to better comparison, better price, and review from other shoppers and time saving.

OPINION ABOUT THE WEBSITES USED FOR ONLINE PURCHASE AND PROFILE OF THE RESPONDENTS

In order to find out the relationship between opinion about website used for online purchase and profile of the respondents, the null hypothesis is framed as, "There is no significant relationship between the profile of the respondents and the respondent's opinion about website used for online purchase". The result is given in the Table 4.

Table 4: Opinion About Website Used for Online Purchase and Profile of the Respondents

Sl. No	Profile Variables	Opinion about website used for online purchase F Statistics					
		Amazon	Flip kart	Snap deal	EBay	Jabong	Myntra
1.	Age	0.545	0.060	0.507	1.026	0.413	1.139
2.	Religion	0.773	0.862	0.497	1.036	1.220	1.208
3.	Marital status	1.018	0.506	0.042	7.260*	0.380	2.121
4.	Nature of family	0.333	0.023	3.420*	0.041	0.238	0.544
5.	Number of members in the family	1.084	1.178	0.187	0.503	2.132	1.887
6.	Qualification	1.544	2.683*	1.740	0.677	1.873	0.955
7.	Occupation	0.117	0.239	0.298	0.710	1.014	1.000
8.	Monthly income	0.313	1.133	0.316	0.204	0.539	0.686

Source: Primary data Significant at five per cent level

It is understood from Table 4 that there is a significant relationship between opinion about flip kart and educational qualification. Table 4 further shows that there is a significant relationship between opinion about Snap Deal and nature of family. It is found from Table 4 that there is a significant relationship between opinion about ebay and marital status.

WEBSITE PREFERENCE FOR THE PURCHASE OF SPECIFIC PRODUCT AND PROFILE OF THE RESPONDENTS

In order to find out the relationship between website preference for purchase of specific product and profile of the respondents, the null hypothesis is framed as, "There is no relationship between the profile of the respondents and website preference for the purchase of specific product". The result of the analysis for website preference for the purchase of a specific product and profile of the respondents is given in Table 5.

Table 5: Website Preference For The Purchase of Specific Product And Profile of The Respondents

Sl. No	Profile Variables	Website preference for the purchase of the specific product (Correlation)				
		Life style	Electronics	Home Appliances	TVs &Appliances	Books & Others
1.	Age	-0.044	-0.139*	0.003	-0.018	0.044
2.	Religion	0.046	-0.052	0.070	-0.010	0.067
3.	Marital status	0.151*	0.110	-0.014	0.077	0.039
4.	Nature of family	0.071	0.051	0.044	0.050	0.040
5.	Number of members in the family	0.061	-0.151*	0.056	0.075	-0.011
6.	Qualification	0.055	0.016	-0.091	-0.025	-0.024
7.	Occupation	0.166*	0.121	-0.070	0.043	0.016
8.	Monthly income	0.039	0.014	-0.018	0.072	-0.023

Source: Primary data
*Significant at five per cent level

It is understood from Table 5 that there is a relationship between age and website preference for the purchase of specific product namely electronics. Table 5 further shows that there is a relationship between marital status and website preference for the purchase of specific product namely life style. It is found from Table 5 that there is a relationship between number of members in the family and website preference for the purchase of the specific product namely electronics. It is further found from Table 5 that there is a relationship between occupation and website preference for the purchase of specific product namely life style.

LEVEL OF SATISFACTION TOWARDS ONLINE PURCHASE AMONG DIFFERENT AGE GROUP OF RESPONDENTS

Respondents of different age groups have different level of satisfaction towards online purchase. In order to find out the significant relationship between level of satisfaction towards online purchase and age group of working women, 'ANOVA' is attempted with the null hypothesis as, *"There is no significant relationship between level of satisfaction towards online purchase and age group of working women in Tirunelveli Corporation"*. The result of ANOVA for level of satisfaction towards online purchase and age group of working women is presented in Table 6.

Table 6: Level of Satisfaction Towards Online Purchase and Age Group of Working Women

Particulars	Age Group (Mean Score)				F Statistics
	20-30 years	31-40 years	41-50 years	Above 50 years	
I. Pre-Purchase Decision					
Price of the product	4.5616	4.5882	4.5476	4.4706	0.163
Quality of the product	4.1096	4.1176	4.2381	4.1765	0.219
Availability of sufficient product information	4.1906	4.2506	4.3095	4.1176	0.914
Easy understanding of terms and conditions	3.9589	4.1029	4.2143	3.7059	1.667
Different choices of payment method	4.0274	4.1176	4.5000	3.9412	3.428*
Wide range of options	4.1781	4.2206	4.0952	3.8235	0.882
Time saving to search product information	4.1644	4.0735	4.2619	4.1176	0.458
Use friendly websites	3.9589	4.1029	4.0952	4.1765	0.424
Attractive discounts	4.0959	4.0441	4.0714	4.1675	0.098
User rating and testimonials	4.0822	4.1324	4.1190	4.1150	0.088
Available elsewhere	3.9315	4.2059	4.1667	4.4218	2.331*
Items not available elsewhere	3.8767	3.9557	3.9762	4.2353	0.515

Particulars	Age Group (Mean Score)				F Statistics
	20-30 years	31-40 years	41-50 years	Above 50 years	
II. On purchase decision					
Delivery period	4.0274	4.0882	3.9524	4.2941	0.470
Security of payment	4.0000	3.9706	4.2619	4.3529	1.627
Privacy of personal information	4.0959	4.2206	4.2857	4.4118	0.972
Home delivery changes	3.8493	4.0294	3.8333	3.9412	0.444
Low transactions cost	3.9452	4.0000	3.9048	4.4118	0.796
III. Post purchase decisions					
Assurance of after sales services	3.9452	4.0000	4.0952	4.1765	0.365
High positive vendors feedback and support	4.0274	3.9265	4.0714	4.1256	0.442
Trust of the store	3.7534	3.7941	3.9762	3.8824	0.554
Information about newer products	4.0137	4.1912	4.0238	4.3529	0.992
Easy to return products	3.9863	4.0000	3.9524	4.1765	0.255
IV. Others					
No time limitation	4.1918	3.8824	4.3333	4.2353	1.988
Website Quality/Trust	3.9589	4.0294	4.1905	4.2941	0.791
Convenience	3.9178	4.1176	3.9524	4.1176	0.769
No crowded shopping environment	3.7671	3.8824	3.7619	3.9412	0.289
Speed action	3.7123	4.0735	4.0000	3.8235	1.300

Source: Computed data
*Significant at five per cent level

Table 7 shows the mean score of level of satisfaction towards online purchase among different age group of working women along with its respective 'F' statistics. There is high level of satisfaction towards online purchase among the working women who are in the age group of 20-30 years are price of the product and no time limitation and their respective mean scores are 4.5616 and 4.1918, among the working women who are in the age group of 31-40 years, price of the product and availability of sufficient product information and their respective mean scores are 4.5882 and 4.2506. The high level of satisfaction towards online purchase among the working women who are in the age group of 41-50 years are price of the product and different choices of payment method and their respective mean scores are 4.5476 and 4.5000, among the working women in the age group of above 50 years, price of the product and available elsewhere and their respective mean scores are 4.4706 and 4.4218. Regarding the level of satisfaction towards online purchase, the significant difference among the different age group of working women, are identified in the case of different choices of payment method and available elsewheresince the respective 'F' statistics are significant at 5 per cent level and thus the null hypothesis is rejected.

SUMMARY OF FINDINGS AND SUGGESTIONS SUMMARY OF FINDINGS

Findings relating to Sources of awareness about online shopping

- It is found that 32.5 per cent of the respondents are aware about online shopping through friends & relatives and TV advertisement, 11.5 per cent respondents are aware about online shopping through Apps, 9.5 per cent respondents are aware about online shopping through Magazines, 7.0 per cent respondents are aware about online shopping through news papers and 6.5 per cent respondents are aware about online shopping through websites.

Findings relating to respondent's preference of website to purchase products through online

- It is identified that majority of the respondents prefer Amazon website for life style products and Flip kart website is preferred by the respondents for electronics products.

- Majority of the respondents purchase products through Amazon for better comparison and for wider selection of products the respondents prefer Flip kart website.

Findings relating to respondent's opinion about the websites used for online purchase and profile of the respondents

- There is a significant relationship between opinion about Flip Kart and educational qualification of the respondents.
- There is a significant relationship between respondent's opinion about Snap deal and nature of family of the respondents.
- There is a significant relationship between opinion about ebay and marital status of the respondents.

Findings relating to respondent's website preference for the purchase the specific product and profile of the respondents

- There is a significant relationship between age of the respondents and website preference for the purchase of specific product namely electronics.
- There is a significant relationship between marital status of the respondents and website preference for the purchase of specific product namely life style.
- There is a significant relationship between number of members in the family of the respondents and website preference for the purchase of specific product namely electronics.
- There is a significant relationship between occupation of the respondents and website preference for the purchase of specific product namely life style.

Findings relating to level of satisfaction towards online purchase and profile of the respondents

- The high level of satisfaction towards online purchase among the respondents who are in the age group of 20-30 years are price of the product and no time limitation and their respective mean scores are 4.5616 and 4.1918 and among the respondents in the age group of above 50 years, price of the product and available elsewhere and their respective mean scores are 4.4706 and 4.4218.
- The high level of satisfaction towards online purchase among the respondents who are married are price of the product and different choices of payment method and their respective mean scores are 4.5812 and 4.2308, among the respondents who are unmarried, price of the product and privacy of personal information and their respective mean scores are 4.5301 and 4.2048.
- The high level of satisfaction towards online purchase among the respondents who belong to joint family are price of the product and privacy of personal information and their respective mean scores are 4.5904 and 4.2892, among the respondents who belong to nuclear family, price of the product and no time limitation and their respective mean scores are 4.5385 and 4.2137.
- The high level of satisfaction towards online purchase among the respondents who are Hindus are price of the product and quality of the product and their respective mean scores are 4.5542 and 4.2410, among the respondents who are Christians, price of the product and high positive vendors feedback and support and their respective mean scores are 4.5696 and 4.2278. The high level of satisfaction towards online purchase among the respondents who are Muslim are price of the product and availability of sufficient product information and their respective mean scores are 4.5526 and 4.3382.
- The high level of satisfaction towards online purchase among the respondents who belong to the family size of 2-3 members are price of the product and available elsewhere and their respective mean scores are 4.5806 and 4.2581. The high level of satisfaction towards online purchase among the respondents who belong to the family size of more than 6 members are price of the product and time saving to search product information and their respective mean scores are 4.6591 and 4.2573.
- The high level of satisfaction towards online purchase among the respondents who are HSC qualified are price of the product and high positive vendors feedback and support and their respective mean scores are 4.7000 and 4.6000 and among the respondents who are undergraduate, price of the product and time saving to search product information and their respective mean scores are 4.4940 and 4.2289.
- The high level of satisfaction towards online purchase among the respondents who are self-employed are price of the product and time saving to search product information and their respective mean scores are 4.6000 and 4.3667 and among the respondents who are private employee, price of the product and privacy of personal information and their respective mean scores are 4.5545 and 4.3267.
- The high level of satisfaction towards online purchase among the respondents who belong to the monthly income of below Rs.15,000 are price of the product and quality of the product and their respective mean scores are 4.6471 and 4.2453 and among the respondents who belong to the monthly income of above Rs.30,000, price of the product and security of payment and their respective mean scores are 4.6000 and 4.4333.

CONCLUSION

Most of the working women use the internet not only to buy the product but also to compare prices and features of product. It is essential for the companies engaged in online marketing of their products to understand the working women's attitude towards online purchase. Today many organizations provide online services for the shopping purpose. This study highlights the marketers to know the factors which influence working women's attitude towards online purchase.

It is observed from the analysis that majority of the respondents prefer Amazon website for life style products and for electronic products, the respondents prefer Flipkart website. Better comparison and wider selection are two important factors considered by the respondents while purchasing online. Through the findings of this research, online retailers could better realize online customer's expectations and the determinants of working women's behavior. By understanding the key drivers that could impact on working women's attitude towards online shopping, online retailers would be able to formulate and implement their e-business strategy efficiently and effectively and possess stronger competitive advantage.

REFERENCES

www.managementorg.com

http://www.studymode.com/essays/consumer-behaviour-256093.html management.

http://www.abhinavjournal.com/images/commerce_&_management/sep12/2.pd

http://www.eshoppingindia.com/info/history-online-shopping.html

Impact of BRICS Agreement Over Economy of Brazil, Russia, India, China and South Africa

Nadiminti Rajesh Kumar*, Lakshmi Ananth, Bharath Senapathy*****

Abstract *This paper provides contemporary climate, deep rooted economic conditions for FTA (free trade agreement), BRICS. In light of changing global economy this paper traces GDP, unemployment and inflation change before and after the FTA. BRICS Nations together has 22.2% of global output, 17.2% Global trade and 40% of global population. The significance of trade and GDP were highlighted during 6th BRICS summit Brazil 2014, which paved much deeper agreement and talks with respect to strategy for economic partnership trade and Investment Corporation. The significance of international trade among BRICS countries was highlighted during the Sixth BRICS Summit in Fortaleza, Brazil in 2014. Secondary data was collected from various sources for the past 20 years and analysis is done using basic regression in SPSS.*

Keywords *BRICS, Free Trade Agreement, Economic Impact, Trade, Inflation, GDP, Unemployment*

INTRODUCTION

It's been 7 years since the formation of BRICS. The BRICS club (Brazil, Russia, India, China and South Africa), which used to be known for its tremendous growth potential, is today in the midst of severe economic and political woes (BRICS- Wikipedia, 2017). The Federal rate increase has contributed to the mounting debt burden for these economies and also falling global commodity prices have affected these emerging markets which rely heavily on export led growth. Moreover, the structural transformation of China, which has been the main driver of this group, from an export driven economy to a one relying on domestic consumption, has added to the current woes of BRICS. Among these BRICS nations, India is the only country which has shown signs of strong potential for growth. The share of exports of goods and services in GDP in 2014 was 23.2% in India, while that of Russia was 30% and South Africa was 31.3%.(Carmody, 2012) India has the lowest per capita GDP of $5,238 among the other members (Information about BRICS, n.d.).

WORKING DEFINITIONS

Inflation is the percentage change in the value of the Consumer Price Index (CPI) on a year-on year basis. It effectively measures the change in the prices of a basket of goods and services in a year. In India, inflation is calculated by taking the CPI as base (Inflation, n.d.).

Gross domestic product is the best way to measure a country's economy. GDP is the total value of everything produced by all the people and companies in the country (What is GDP?, n.d.).

Unemployment is a phenomenon that occurs when a person who is actively searching for employment is unable to find work. Unemployment is often used as a measure of the health of the economy (Unemployment, n.d.).

LITERATURE REVIEW

The BRICS group is the 'third giant' after the EU and the US. But BRICS member nations are too different, and have too few synergies, to represent a solid economic and political power (What is State of BRICS Economies, 2015).

Over the next 50 years, Brazil, Russia, India and China - the BRICs economies - could become a much larger force in the world economy. We map out GDP growth, income per capita and currency movements in the BRICs economies until 2050. Overall, growth for the BRICs is likely to slow significantly over this timeframe. By 2050, only India on our projections would be recording growth rates significantly above 3% (Dreaming With BRICs:The Path to 2050).

The dominance of the Chinese economy and its role in trade relations makes the BRICS much more a China-with-partners group than a union of equal members.

BRICS countries lack mutual economic interests. Trade between them is now less than 320 billion dollars a year and declining. Their trade with the US and EU is 6.5 times higher. China's trade with the rest of the world is 12.5 times

* Lecturer, Department of Pharmaceutical Management, NIPER, Hyderabad, Telangana, India. Email: rajesh@niperhyd.ac.ins
** 2nd year MBA (Pharma) Student, Department of Pharmaceutical Management, IIHMR University, Jaipur, Rajasthan, India.
*** 2nd year MBA (Pharma) Student, Department of Pharmaceutical Management, NIPER, Hyderabad, Telangana, India.

higher. Bilateral trade between China and South Korea is almost as large as that between BRICS nations.

Members are too similar in some key areas. All members (apart from Russia) hold huge foreign reserves (15-35% of GDP) and have low external debt (15% to 37% of GDP.) Apart from Russia, they are heavily integrated into consumer goods production with the 'West' (Matthias vom Hau, 2012).

BRICS nations compete in third markets. In many areas, from clothing (China, India and Brazil), through economic influence in Africa (China, South Africa and India) to international aircraft and military equipment markets (China, Russia and Brazil) BRICS countries compete with one another. Diversity of cultures. Phases of economic development, ideologies, definitions of poverty and other cultural differences mean BRICS members lack common understandings about priorities that are necessary for productive sharing of experiences.

RESEARCH QUESTION

Is BRICS formation being beneficial to any of these 5 countries.

Which country gets more benefitted from BRICS agreement.

HYPOTHESIS

Null Hypothesis: There is no difference in economies before and after the formation of BRICS.

Alternate Hypothesis: There is a significance difference in economies of 5 countries before and after BRICS.

DATA COLLECTION AND ANALYSIS

Data is collected from various sources through extensive research from internet. Statistical tests like paired sample t test, correlation and regression is used to analyse the data.

RESULTS AND FINDINGS

GDP is main measure of Economy of any country. Also, other major contributors include unemployment and inflation. So, by keeping GDP as dependant variable and Inflation and Unemployment as independent variable r^2 and F(Sig.) value are obtained from SPSS.

Table 1: Measuring the Relation between GDP and Inflation by Keeping GDP as Dependant Variable

GDP vs Inflation				
Country	Pre-BRICS		Post BRICS	
	r^2	F(Sig)	r^2	F(Sig)
Brazil	0.193	0.324	0.794	0.007
Russia	0.025	0.232	0.51	0.072
India	0.071	0.565	0.027	0.725
China	0.054	0.615	0.559	0.053
South Africa	0.129	0.429	0.168	0.197

Table 2: Measuring the Relation between GDP and Unemployment by Keeping GDP as Dependant Variable

GDP vs Unemployment				
Country	Pre-BRICS		Post BRICS	
	r2	F(Sig)	r2	F(Sig)
Brazil	0	0.983	0.224	0.283
Russia	0.246	0.258	0.374	0.144
India	0.07	0.86	0.123	0.44
China	0.97	0	0.973	0
South Africa	0.024	0.741	0.786	0.005

Table 3 & 4: Measuring the Correlation between GDP vs Inflation and Unemployment

Correlation GDP Vs Inflation		Correlation GDP Vs Unemployment	
Brazil	-0.476	Brazil	0.063
Russia	-0.045	Russia	0.122
India	-0.145	India	0.124
China	0.244	China	-0.99
South Africa	-0.37	South Africa	-0.292

Table 5: Paired t test (t sig) Values of Before and After BRICS Agreement

Paired t test of GDP, Inflation and Unemployment Before and after BRICS (p values)			
Country	**GDP**	**Inflation**	**Unemployment**
Brazil	0.26	0.949	0.017
Russia	0.148	0.028	0.002
India	0.529	0.346	0.001
China	0.021	0.873	0.037
South Africa	0.078	0.72	0.16

OBSERVATIONS

From table 1 [F Sig. (0.007)] Brazil is significant and inflation alone explains 79.4% relation with GDP in post BRICS era where it explains only 19.3% in pre-BRICS era. Also, China is having [F Sig. (0.005)] which explains 55.9% of GDP with inflation. Russia's GDP with inflation is explained with around 52%.

From table 2, China Unemployment alone explains 97% of inflation in pre-and post BRICS era. in South Africa Unemployment dependency changes from 2.4% to 78.6% of GDP. Russia's Unemployment dependency over GDP is explained with around 37.4%.

From table 3 & 4, GDP and inflation are negatively correlated, but correlation between them is week. Correlation of GDP with unemployment is weakly positively correlated except for China and South Africa. China's correlation with Unemployment is almost perfectly negatively correlated, due to main reason that china's extensive production concept and dumping of Goods.

From table 5, except for South Africa GDP was changed for all other countries in pre-and post BRICS era. In case of inflation Russia's remains same in pre-and post BRICS era where as Other countries change is significant. Unemployment levels in South Africa remains same in Pre-and post BRICS era, where as for other countries unemployed levels were changed significantly positive.

CONCLUSION

Brazil's Unemployment (p=0.017) which indicates to reject null hypothesis and conclude that Unemployment was changed in pre-and post BRICS. Whereas for GDP (p=0.26) and Inflation (p=0.949) we do not reject null and conclude GDP and Inflation was same in pre-and post BRICS.

Russia's Inflation (p=0.028) and Unemployment (p=0.002) which indicates to reject null and conclude that Inflation and Unemployment were changed significantly pre-and post BRICS. Whereas for GDP (p=0.148) we do not reject null and conclude GDP was same in pre-and post BRICS.

India's Unemployment (p=0.001) which indicates to reject null hypothesis and conclude that Unemployment was changed in pre-and post BRICS. For GDP (p=0.529) and Inflation (p=0.346), we do not reject Null and conclude GDP and Inflation was same in pre-and post BRICS.

China's GDP (p=0.021) and Unemployment (p=0.037) which indicates to reject null and conclude that GDP and Unemployment were changed significantly pre-and post BRICS. Whereas for Inflation (p=0.873) we do not reject null and conclude Inflation was same in pre-and post BRICS.

South Africa's GDP (p=0.078) which indicates to reject null and conclude that GDP was changed significantly pre-and post BRICS. Whereas for Inflation (p=0.873) and Unemployment (p=0.16) we do not reject null and conclude Inflation and Unemployment were same in pre-and post BRICS.

REFERENCES

BRICS- Wikipedia. (2017, August). Retrieved from Wikipedia: https://en.wikipedia.org/wiki/BRICS

Carmody, P. (2012). Another BRIC in the wall? South Africa's developmental impact and contradictory rise in Africa and beyond. *The European Journal of Development Research*, 223-241.

Dreaming With BRICs: The Path to 2050. (n.d.). *Economic research from the GS financial workbench.* Goldman Sachs.

Inflation. (n.d.). Retrieved from Economic Times http://economictimes.indiatimes.com/definition/inflation

Information about BRICS. (n.d.). Retrieved from Brazil Govt Official: http://brics.itamaraty.gov.br/about-brics/information-about-brics

Hau, M. V., Scott, J., & Hulme, D. (2012). Beyond the BRICs: Alternative strategies of influence in the global politics of development. *The European Journal of Development Researc, 24*(2)*,* 187-204.

Unemployment. (n.d.). Retrieved from Investopedia http://www.investopedia.com/terms/u/unemployment.asp

What is GDP? . (n.d.). Retrieved from The Balance https://www.thebalance.com/what-is-gdp-definition-of-gross-domestic-product-3306038

What is State of BRICS Economies. (2015, April). Retrieved from World Economic Forum https://www.weforum.org/agenda/2016/04/what-is-the-state-of-the-brics-economies/

The ConBack Gimmick: A Strategy for Speculation

Bhabani Sankar Rout*, K. Chandrasekhara Rao**

Abstract *This paper is directed to empirically explore the applicability of Keynes's assumptions on Indian Commodity Derivative market and to have an insight about the randomness of Contango and Normal Backwardation of Contract Months and Near Months in the select commodities. The data for the select commodities have been triangulated from MCX and NCDEX over a period of three years i.e. from 2013 to 2015. Runs test is employed to check the randomness of the Contango and Normal Backwardation in the select commodities market. The paper also attempted to draw an exclusive pattern for both Contango and normal backwardation by which the hedgers would be able to hedge their price risk and also would be beneficial to the speculators to earn a handsome premium.*

Keywords *Contango, Backwardation, Anchor's Heuristic Effect, Risk Premium, Shadownomics*

JEL *G11, G13, G14, G41, P34*

INTRODUCTION

The commodity Derivative Segment provides a wide platform for both price risk management and market uniformity. The price risk has only be hedged through proper risk premium analysis and assumptions. The producers or farmers, who maintain their livelihood by producing crops, food grains, serials etc. are the most practical and phenomenal individuals. The mere fluctuation in the crop price will give a dimension to their financial obligation. The farmers who are involve in farming do not have any self-financial assistance for their crop harvesting, the all drastically depend upon the financial intermediary for financial assistance. The producer again has the obligation to pay back the loaned amount with a specified interest rate. So the fluctuation in the price gives a flaw to the farmer's inflows.

It is very much important to understand the symptoms before judging the disease. So if we are confident about the decrease or increasing trend of the price of the products, we can hedge our price risk in engaging in various instruments in the derivatives market. So, knowledge of the pattern in the market is very significant in order to hedge the price risk by the hedgers and to earn a good premium by the speculators. John Maynard Keynes had developed Keynesian Economics, where he partially focused on the Speculation activities in Commodity Segment. The contract, which gives a safeguard to the price fluctuation in the commodity market and allow the farmer to sell in the product with a better price.

KEYNES'S ASSUMPTIONS

The theory of Speculation was propounded by Keynes in 1948. Keynes put an effort to explore the reason for Normal Backwardation. Backwardation is normally observed when Commodity is in Short supply in the market. It gives a lead about "Seasonal" and "Off Seasonal" Product". If a producer producing an off-seasonal product, he expects a better value for his products as the demand is higher than the supply of the commodity and he will always try to strike the best price for the product. However, due to uncertainty in the market and price variations, the producers will hedge sort. And due to the hedging pressure and risk adverse nature of the producers, he has to set the futures price below the future expected spot price. Therefore, in the normal backwardation market condition, the futures price is always lower than the future expected spot price of the commodities. Whereas, the market condition is said to be in *Contango,* when the futures price is higher than the future expected spot price, and as opposite to backwardation, this situation arises when the supply is enough and the convenience yield is less than the cost of storage.

Suppose, a producer is producing commodity X for commercial selling and the demand for the commodity X is higher than supply, then the convenience yield of the commodity will be higher than the cost of storage and thereby there is a greater chance of increasing price trend as the producers will demand more prices due to short supply. However, the producers are always risk averse as they bears more risk than consumers because of the possession of the commodities with them. This leads to congenital weakness on the demand side of many commodities futures contracts (*Feldmen & Till, 2006*). This leads a lower price of the contract than the future expected spot price. In such case the market is said to be backwardation.

However, if the case is the opposite one and the supply of the commodity in the market is more than the demand, the

* Research Scholar, Dept. of Banking Technology, Pondicherry University, Puducherry, India. Email: bsrout3@gmail.com
** Professor, Dept. of Banking Technology, Pondicherry University, Puducherry, India. Email: kcsrao9894255526@gmail.com

producers will try to store the produce to sell it at later period. According to the traditional storage theory, therefore the current spot price will be higher than the future expected spot price which implies a decreasing trend in the price. Again, in such case the speculators will take short position and try to sell the produce predicting a declining price market. Thus the pressure from the speculators side leads the futures price higher compared to the future expected spot price. And this situation is termed as *contango* in commodities derivatives market.

MARKET MICROSTRUCTURE

The market micro structure completely based on the current Demand and Supply of the commodity with optimum information transformation. The commodity market is much un-organized than stock market as there are an ample amount of chances of leakage of market information. Normally the spot market is regulated by various "Shadownomics". Sometime the Efficient Market Hypothesis (EMH) does not work out properly due to involvement of such "Shadownomics". This is the biggest reason behind the Normal Backwardation.

If a producer or farmer produces certain commodities and wish to sell it up in the market, normally he finds price risk due to easy availability of both producer and product. So in order to hedge his price risk, he enters in to futures contract for a better price in the future date. But such practice is very miserably seen in Indian context. So indirectly it gives a rise of "Backwardation" situation.

SHADOWNOMICS

Shadownomics is a kind of black economy, where *Cartel Risk* is seen, and producers are not allowed to sell their product in derivative segment. Improper information about price of saleable commodities, sometimes leads to "Backwardation" in the market. The economy is considered as shadow or darkens due to manipulation of price mechanism for the farmer. The economy is pumped in with a wrong information about price and restricts the producers to sell their products in futures Market. The market agents forces the producers to sell in spot market even if it is a distress sell. The Shadownomics invokes abnormal price fluctuation and inflation in an economy. The market agent acts as bookie to undergone malpractice by reselling the distressed sold commodities.

CARTEL RISK

The cartel risk is created or initiated by the market agents or bookies who fixes the price of which are sold by the farmer with a lower price. In such case the farmer is unable to get a proper price for his produced commodities. The Market agents restrict them to sell in futures market and force them to deliver in Spot Market with a cheaper price. As we know, it is very difficult to get a proper price for the seasonal product as competitors are more in such scenario and this is the only reason behind the initiation of Derivative Segment. In such platform, the producers can hedge their price risk by entering into Future contracts. But such practice is rarely seen in Indian Derivative Market. Most of the Mandies are operated by the illegal Market Agents and they decides upon their net gains i.e. whether the farmer will enter into futures segment or still continue with spot market. The illiterate, poor farmers render their produces with no option, neither they know how to trade online nor wishes to fight with local "Gundas".

As we know "Backwardation" is not seen in security market and here is the biggest reason behind such drastic issue. Security Market is more organized and ruled up by high net worth intellectuals but due to such Cartel Risk, "Backwardation" has eaten away the real aroma of trading for the poor farmers. The Cartel Risk can be diversified by superimposing regulation on local Mundies and eradicating the illegal market agent, but still we are so far form moon.

ANCHOR HEURISTIC EFFECT

The *Anchor Heuristic Effect* normally calculates the Ups and Downs from the original value at the time of prediction. In such situation, we are intended to predict the happening of "Contango" and "Normal Backwardation" by capturing the movement of "Spot Price Trend" of past three years. We assumed that, *if the current future price of the select commodities is "Above" the moving average of last three years Spot Price, we can get a "Backwardation" trend and if "Bellow" there will be a "Contango" Pattern*. We assumed that if the futures price of the select commodities is below the spot price. The reason for calculating *Spot Price Trend* is that, we assumed that there is an *Influence* of past year Spot Price on the current year spot price for the *Contango* and *Normal Backwardation* situation. Suppose the current Spot price of Channa is "Above" than last three-year spot price, which means that the commodity has gone through lower supply and higher demand. The non-availability influences the Spot Price of the commodity hence resulted Backwardation. In such situation, a speculator can store the commodity for a *premium* in future date. This situation

is purely adverse in case of Contango. The *return* of such holding of commodities is called *Convenience Yield*.

SPECULATION THEORY

Normal Backwardation seems to be more peculiar with the aspect of *Hedgers* and *Speculators Prospective*, but it's more specific on *Producers prospective*.

The producers are those who harvest, grow and try to settle the produced crops with a minimal profit margin, however, hedgers are those, who tries to mitigate the price risk by entering in Derivative market with a *Long Hedge* or *Sort Hedge*. The Speculators are of dynamic forecasting ability where they can earn a premium for it.

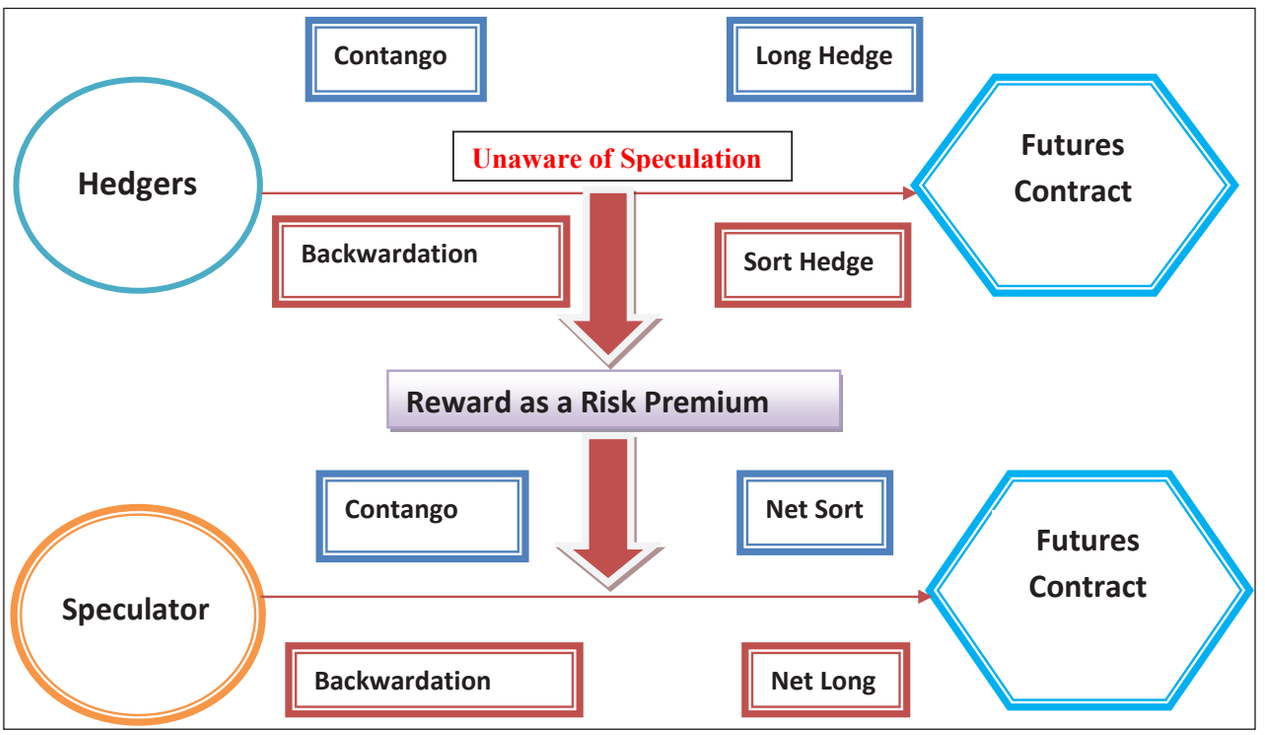
If we focus the "*Market Microstructure*", the situation of "Normal Backwardation" and "Contango" has a dynamic spillover effect to each other and provides an enormous support to Speculating activities. Again, if we address the Hedgers, the situation of both "Contango" and "Normal Backwardation," it provides a platform for risk management, where a hedger can get an Insurance Premium along with the benefit of risk management, if he depicts if they recognize the exclusive pattern on ConBack. It is obvious that, when a Hedger is going to mitigate the price risk of his possession, he has to "Hedge Long" and it is purely opposite in the case of "Speculator," i.e. Net Sort, hence the situation is expected to be "Contango" and again, in "Normal Backwardation", the "Speculator" has a net pay off by taking "Net Long" position where as "Hedgers" to be reverse.

Therefore, all of the "Speculators" profits would be a reward for risk bearing and none is a reward for "Forecasting Skill" (Lee and Zhang, 2008).

MECHANISM

The below mentioned chart has given a pictorial mechanism of the net position of both Speculator and Hedger as well. The moment a Hedger enters into Derivative segment, immediately he thinks up the *futures prices* of his possession will continuously decrease, hence in order to shield his price risk, he *Hedge Long*. In the same scenario the Speculator, who make his position by *Net Sort* with a prediction that they can repurchase in a minimum rate. in such moment, we drastically predict a "Contango" situation and reverse is "Normal Backwardation".

In such situation, the *Net Premium,* the Speculator gain is a reward for *taking of risk* and hence it is paid by the hedger. Again, if we understand the Keynes assumption on storing of inventory, we could understand, the more secure our inventory storage, the more we face "Backwardation" situation, this is due to the convenience yield is greater than the cost of storage and thus the producers expects a better price for their products i.e. expects the price to be upward trending to justify his argument, Keynes developed a theory by saying, "Normal Backwardation occurs, when the Commodity is in short supply". It is purely based on the demand and supply theory, less the supply, chances of immediate disbursement is quite high due to high demand.



LITERATURE REVIEW

Lee and Nancy (2005), the authors investigate on "Future Markets: Speculator Participation and Risk Premium". The study aims at to explore whether changes in Futures Price are determined by the shifting of price risk and the presence of risk premiums in the transaction between Hedgers and Speculators. The author explained the two theories i.e. "Theory of Normal Backwardation" and "Forecasting Theory", which gives return to speculative traders and significant price volatility in futures marker, he also pointed out the Theory of Convenience yield, and how speculators will benefit, when product is in short supply.

Garton and Ronnembor (2006) have conducted a study entitled "Facts and Fantasies about Commodity Futures". The Study observes that commodity futures have historically offered the same return and Sharpe-ratio as equities. While risk premium on commodity futures is essentially same as equities, the study on commodity Futures with a sample of 32 commodities traded in London Metal Exchange during 1959-2004 observes that the returns of commodity markets are negatively correlated with equity returns and bond returns. The negative correlation between commodity futures and other asset classes in commodity futures are truly correlated with inflation and unexpected inflation, changes in expected inflation.

Feldman & Till (2006) examined the role of backwardation in the performance of positive long positions in soybean, corn and wheat futures over the period 1950 to 2004. They found high level of explanatory power for backwardation and roll return in describing the performance of three commodity futures.

Bose (2008) has explored a study on "Commodity futures market in India: Study of trends in the National Multi Commodity Indices**.** The characteristics of Indian commodity futures market has been studied through price efficiency functioning of market. The result based on Multi Commodity Indices shown at higher exposure to material and energy product with clear and efficient price dissemination in national and International Market. She has expected the nature of Contango and Normal Backwardation in her observation. The suggestion made on the base of trend of Spot and Future Index for 2005-2007.

Fantacci et. al. (2010), the author makes an attempt to study on "Speculation in Commodities, Keynes practical acquaintance with future market". Information like un-published letter, broker's statement and speculation theory of Keynes have been used to analyze the speculative behavior in wheat future market, the observation shows that, Normal Backwardation applied only to well specified circumstances. It also observes that, Keynes actual behavior as a speculator is different from the theory suggested by him (Speculative Theory).

Varadi (2012), the author explores in the topic of "An Evidence of Speculation in Indian Commodity Market". He explains the price volatility is influenced by several factors like traditional supply and demand, excess global liquidity and financialization attitude of speculators and investors. The study has attempt to find the impact of the above said factors in Indian Commodity Futures Market. The result shows that, speculation played an important role in price volatility especially in the global crisis. He has pointed out how the Theory of Normal Backwardation helpful in such regards. Data collected from FMC fortnightly from 2006-2010.

Gorton et. al. (2012) empirically verified how price based signals are related to inventory levels and risk premium using a comprehensive data set of 31 commodity futures and physical inventories between 1971 and 2010. They observed that increase in hedging (decrease in long position) by commercials is associated with higher futures return. Commercials increase their short positions as prices go up, while non- commercial increase their long position in a rising market.

Das and Chakroborty (2015), the author studied on "Hedging performances of Commodity Futures in India: An empirical Study on Some Agri Commodities". This paper aims to measure optimal hedging ratio and hedging effectiveness for reducing the price risk. A positive base implies that, a Future Price lag behind or backward to Spot Price (Future Market is in Backwardation, whereas aa negative basis is termed as Contango). Potato price shows a mixed Pattern, with a greater incidence of Contango and Backwardation.

Kumar (2016) has conducted a study entitled "Financialisation of Commodity Market in India: A closer look at the evidence". The impact of financialisation of price risk and price volatility of Indian commodities market has been studied by using time series techniques. The commodity price index is related to stock index price and causality test indicated that commodity prices are Granger causes the stock prices in India.

Botterud et. al. (2016) studied the relationship between long term and short term prices in the Scandinavian electricity market. The analysis is based on historical spot

and futures prices covering the period from 1995 to 2001. They established that on an average futures price seems to overestimate the actual spot price and average risk premium is negative.

OBJECTIVE

In the current study we are focusing on to examine the applicability of Keynes's assumptions on Indian Commodity Derivative market. On the other hand, we have also intended to calculate the randomness of Contango and Normal Backwardation of Contract Months and Near Months in the select commodities. We are expected to draw a suitable pattern of ConBack for betterment of risk management practices by the producers as well as Hedgers and Forecasting skill adopted by Speculator to earn Risk Premium.

DATA CRUNCHING

We have grabbed the *time series closing price* of select commodities i.e. Channa, Chilli, Jeera, Soya Bean and Turmeric from MCX and NCDEX over three years i.e. from 2013 to 2015. We both have collected *Contract Month* and *Near Month* data for our research. We have taken *one hundred forty two* contracts to focus Contract Month.

METHODOLOGY

Test of Randomness: The test of randomness is very much important to understand the wavering movement of values. In order to capture such wavering movements, we tried "Runs Test", runs are defined as a series of Decreasing or Increasing Series. The length is determined by the number of runs in that series. In a random data series, the probabilistic occurrence that the (I+1) th value is smaller or larger than I th value follows a Binomial Distribution, which is the basis of Runs Test.

$$Z = \frac{R - \overline{R}}{SR} \quad (1)$$

R = Observed no. of Runs

$\overline{R}$ **= Expected no. of Runs**

SR = Standard Deviation of runs.

$$\overline{R} = \frac{2n1n2}{n1 + n2} + 1 \quad (2)$$

$$SR = \frac{2n1n2(2nin2 - ni - n2)}{(n1 + n2)(n1 + n2 - 1)} \quad (3)$$

n1 and n2 = the positive and negative number in the series

We have collected near month contract cycles for the select commodities of our study. We have analyzed *Spread (Expected Spot Price-Future Price)* to explore the Existence of Contango and Backwardation. The *negative Spread* gives Contango whereas Backwardation for *Positive Spread*.

INTERPRETATION OF RESULT

Runs Test

Commodities	Contract Months		Near Months	
	Total Runs	Significance	Total Runs	Significance
Channa	11	0.113	197	0.000
Chilli	15	0.262	061	0.000
Jeera	15	0.000	164	0.000
Soya bean	08	0.119	224	0.000
Turmeric	10	0.000	125	0.000

Runs Test: 01

We have attempted to measure the randomness of *Contango* and *Normal Backwardation* for both *Near Months* and *Contract months* for select agricultural commodities i.e. Channa, Chilli, Jeera, Soya Bean and Turmeric over the three years. We have tried *Runs Test* to capture the Randomness of sample. If we observe keenly, we could able to observe, the *Total Runs* of Commodities in Near Months are relatively high in *Contract Months*, and the commodities are completely significant in Near Month contracts where as it is partially significant in Contract Months (Runs Test: 01).

The commodities like, Jeera and Soya Bean are significant whereas rest of the commodities i.e. Channa, Chilli and Soya Bean are insignificant in Contract Months , that depicts, the Commodities, those who shows a significant in *Runs Test*, have rejected the *Null Hypothesis* and provide a *randomness* of Contango and Normal Backwardation. In the other hand, the commodities that are i*nsignificant* in *Runs Test* provide a *non-randomness* of happenings of Contango and Normal Backwardation. Again, the randomness of Contango and Normal Backwardation in *Near Month* contracts gives a significant result, hence we can conclude that, there is a Randomness of Contango and Normal Backwardation persists in Near Month contract in all select commodities.

As it is clearly seen, the Total Runs of Contango and Normal backwardation in Near Months contract are relatively high in compare to Contract Months and it is due to the impact of *Maturity Month* and *convergence* effect. The prices fluctuations are mostly observe in *Near Month* period due to

delivery and settlement of commodities. But this scenario is completely absent in *Contract Months*. The non-randomness of Contango and Normal Backwardation provides a drastic pattern; it is due to the systemic trends of happening of ConBack, and also disproves both Anchor Heuristic Effect and Keynes assumptions.

Results

Select Commodities	Existence of ConBack	Keynes's Assumption	Anchor Heuristic effect	Significance Level (Runs Test)
Channa	Yes	Proved	Proved	0.113
Chilli	Yes	Proved	Proved	0.262
Jeera	Yes	Disproved	Disproved	0.000
Soya bean	Yes	Proved	Proved	0.119
Turmeric	Yes	Disproved	Disproved	0.000

Results: 01

KEYNES'S ASSUMPTION

We have made an attempt to empirically document Keynes assumption regarding Backwardation (Contango). In Backwardation, the supply of commodities is very less, hence expecting a positive price movement, so the *Future Price* is quite above the *Expected Spot Price*. The commodities like Jeera and Turmeric disproved the Keynes assumption of Contango (Backwardation), whereas the commodities like Channa, Chilli, and Soyabean has proved the assumption. The sowing and harvesting periods, seems to be Backwardation, because that time normally market faces a short supply of commodities, whereas it is reverse in Contango. (Results: 01). The availability of commodities is depends upon their arrival months. Hence, the Futures Price is higher than the Expected Spot Price, resulting Contango.

ANCHOR HEURISTIC EFFECT

The assumption of Anchor Heuristic Effect is to calculate the Ups and Downs from the original value in the time of prediction. In such situation, we are intended to predict the happening of "Contango" and "Normal Backwardation" by capturing the movement of "Spot Price Trend" of past three years. The result provided a clear idea about the happening of Contango and Normal Backwardation with the aspect of Anchor Heuristic Effect. The commodities like Channa, Chilli and Soya Bean has *proved* the assumption of Anchor Heuristic Effect with a *non-random* pattern of Contango and Backwardation. It conveys, the non-randomness of Contango and Backwardation has a specific *Spot Price Trend* which will again lead a situation for Contango (Backwardation). Similarly, the commodities like, Jeera and Turmeric *Disproved* the Anchor Heuristic Effect assumption with a *random* pattern of Contango and Normal Backwardation.

CONBACK PATTERN

The pattern for *Contango* and Normal *Backwardation* is keenly observed in the select agricultural commodities. The pattern may very much helpful to producers, hedgers and Speculatorsas well. It is necessary to adopt proper strategy in order to optimize profit and mitigate risk as well. The *net position* of both Hedgers and Speculators can be more authentic and specific, if the aware of certain pattern of market behavior. Channa has a systematic pattern of Contango in January, February, April, May, June and July but a Backwardation pattern in March. In order to gain premium in Contango situation, the Speculator tries to position *Net Sort* and Hedgers may take *Long Hedge* to protect their price risk in January, February, April, May, June and July for Channa contract and reverse in Backwardation in March contract (*Appendix: A*). Again, if we observe rest of the agricultural commodities, we can also suggest the optimum strategies for both Hedgers and Speculators to minimize the risk and earn premium (Speculator. as well. In Chilli contract, the Hedgers will position at *Hedge Sort* and Speculator will be at *Net Long* over January to September except March, hence in March, they have to take Long Hedge (Hedger) and *Net Sort* (Speculator). Jeera contract has a definite position of *Sort Hedge* (Hedgers) and *Net Long* (Speculator) in March to July but Soya Bean from April to November the Speculators can position themselves by taking *Net Long* and *Sort Hedge* for Hedgers, but it is reverse in January and December. The Turmeric contract has drastic pattern of *Contango*, hence,

the Speculator will position at *Net Sort* whereas the Hedgers will take *Long Hedge* from April to August and reverse in case of February and March.

CONCLUSION

A clear pattern of Contango and Backwardation is clearly observed in this paper. The pattern will help the Hedgers as well as Speculator to make appropriate strategies to hedge the price risk and earn risk premium as well. The randomness of Contango and Normal Backwardation in some commodities failed to provide a definite pattern throughout the year, but the structured pattern are much obvious and authentic to make optimum strategy both Hedgers and Speculators as well. They can play in a definite pay off up to the equilibrium, once it touch the threshold, the strategies has to be changed in order to perform in the derivative market. Again, we have discovered the existence of Contango and Normal Backwardation in select agricultural commodities and also we have identified the commodities which have followed the Keynes Assumptions and assumptions of Anchor Heuristic Effect.

APPENDIX: A

ConBack Pattern

Net Position of Hedgers and Speculators in ConBack Situation										
	Channa		Chilli		Jeera		Soya Bean		Turmeric	
	Hedger	Speculator	Hedger	Speculator	Hedger	Speculator	Hedger	Speculator	Hedger	Speculator
January	Long Hedge	Net Sort	Sort Hedge	Net Long	No Pattern		Long Hedge	Net Sort	No Pattern	
February	Long Hedge	Net Sort	Sort Hedge	Net Long			No Pattern		Sort Hedge	Net Long
March	Sort Hedge	Net Long	Long Hedge	Net Sort	Sort Hedge	Net Long			Sort Hedge	Net Long
April	Long Hedge	Net Sort	Sort Hedge	Net Long	Sort Hedge	Net Long	Sort Hedge	Net Long	Long Hedge	Net Sort
May	Long Hedge	Net Sort	Sort Hedge	Net Long	Sort Hedge	Net Long	Sort Hedge	Net Long	Long Hedge	Net Sort
June	Long Hedge	Net Sort	Long Hedge	Net Sort	Sort Hedge	Net Long	Sort Hedge	Net Long	Long Hedge	Net Sort
July	Long Hedge	Net Sort	Sort Hedge	Net Long	Sort Hedge	Net Long	Sort Hedge	Net Long	Long Hedge	Net Sort
August	No Pattern		Sort Hedge	Net Long	No Pattern		Sort Hedge	Net Long	Long Hedge	Net Sort
September			Sort Hedge	Net Long			Sort Hedge	Net Long	No Pattern	
October			No Pattern				Sort Hedge	Net Long		
November							Sort Hedge	Net Long		
December							Long Hedge	Net Sort	Long Hedge	Net Sort

Contango Pattern					
	Channa	Chilli	Jeera	Soyabean	Turmeric
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

Backwardation Pattern					
	Channa	Chilli	Jeera	Soyabean	Turmeric
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

APPENDIX: B

Existence of Contango and Normal Backwardation in Select Commodities

CHANNA			
	2013	2014	2015
JANUARY	B	C	C
FEBRUARY	NT	C	C
MARCH	NT	NT	NT
APRIL	B	C	C
MAY	B	C	C
JUNE	C	C	C
JULY	B	C	C
AUGUST	C	C	B
SEPTEMBER	B	C	B
OCTOBER	B	C	B
NOVEMBER	B	C	B
DECEMBER	C	C	B

Table-I

CHILI			
	2013	2014	2015
JANUARY	NT	NT	NT
FEBRUARY	NT	NT	NT
MARCH	C	NT	C
APRIL	C	NT	C
MAY	NT	NT	NT
JUNE	C	C	C
JULY	B	C	B
AUGUST	B	C	B
SEPTEMBER	B	C	B
OCTOBER	B	C	C
NOVEMBER	C	C	B
DECEMBER	C	C	B

Table-II

JEERA			
	2013	2014	2015
JANUARY	NT	NT	C
FEBRUARY	NT	NT	C
MARCH	B	B	B
APRIL	B	B	B
MAY	B	B	B
JUNE	B	B	B
JULY	B	C	B
AUGUST	B	C	B
SEPTEMBER	B	B	B
OCTOBER	B	C	B
NOVEMBER	B	C	B
DECEMBER	B	C	B

Table-III

C - Contango

B - Backwardation

NT – Not Traded

Table-IV

Table-V

SOYABEAN			
	2013	2014	2015
JANUARY	B	B	C
FEBRUARY	B	B	C
MARCH	NT	B	NT
APRIL	B	NT	B
MAY	B	B	NT
JUNE	B	B	C
JULY	B	NT	NT
AUGUST	NT	B	B
SEPTEMBER	NT	NT	NT
OCTOBER	B	B	B
NOVEMBER	B	B	B
DECEMBER	C	C	C

TURMERIC			
	2013	2014	2015
JANUARY	NT	NT	NT
FEBRUARY	NT	NT	NT
MARCH	NT	NT	NT
APRIL	C	C	C
MAY	C	C	C
JUNE	C	C	C
JULY	C	C	C
AUGUST	C	C	B
SEPTEMBER	B	C	C
OCTOBER	B	C	C
NOVEMBER	C	C	C
DECEMBER	B	C	C

APPENDIX: C

The Anchor Heuristic Effect

CHANNA			
	2013	2014	2015
JANUARY	A	B	A
FEBRUARY	NT	B	A
MARCH	NT	NT	NT
APRIL	A	B	A
MAY	A	B	A
JUNE	A	B	A
JULY	B	B	A
AUGUST	B	B	A
SEPTEMBER	B	B	A
OCTOBER	B	B	A
NOVEMBER	B	B	A
DECEMBER	B	B	A

Table-I

CHILI			
	2013	2014	2015
JANUARY	NT	NT	NT
FEBRUARY	NT	NT	NT
MARCH	B	NT	A
APRIL	B	NT	A
MAY	NT	NT	NT
JUNE	B	A	A
JULY	B	A	A
AUGUST	B	A	A
SEPTEMBER	B	A	A
OCTOBER	B	A	A
NOVEMBER	B	A	A
DECEMBER	B	A	A

Table-II

JEERA			
	2013	2014	2015
JANUARY	NT	NT	A
FEBRUARY	NT	NT	A
MARCH	B	B	A
APRIL	B	B	A
MAY	B	B	A
JUNE	B	B	A
JULY	B	B	A
AUGUST	B	B	A
SEPTEMBER	B	B	A
OCTOBER	B	B	A
NOVEMBER	B	B	A
DECEMBER	B	B	B

A - Above

B - Bellow

NT – Not Traded

Table-III

SOYABEAN			
	2013	2014	2015
JANUARY	A	A	B
FEBRUARY	A	A	B
MARCH	NT	A	NT
APRIL	A	A	B
MAY	A	A	NT
JUNE	A	A	B
JULY	A	A	NT
AUGUST	NT	NT	A
SEPTEMBER	NT	NT	NT

TERMERIC			
	2013	2014	2015
JANUARY	NT	NT	NT
FEBRUARY	NT	NT	NT
MARCH	NT	NT	NT
APRIL	B	A	A
MAY	B	A	A
JUNE	B	A	A
JULY	B	A	A
AUGUST	B	A	A
SEPTEMBER	B	A	A

OCTOBER	A	B	B
NOVEMBER	A	B	B
DECEMBER	A	B	A

Table-IV

OCTOBER	B	A	A
NOVEMBER	B	A	A
DECEMBER	B	A	A

Table-V

REFERENCES

Feldman, B., & Till, H. (2006). Backwardation and commodity futures performance: Evidence from evolving agricultural markets. *Journal of Alternative Investment,* Summer.

Gorton, G., & Rouwenhorst, K. G. (2006). Facts and fantasies about commodity futures. *Financial Analysts Journal 62*(2), 47-68.

Lee, J. W., & Beneda, N. (2005). Future markets: Speculator participation and risk premium. *Management Research News, 28*(6), 1-17.

Lee, J. W., & Zhang, Y. (2009). Evidence of normal backwaerdation and forecasting theory in futures markets. *Journal of Derivatives & Hedge Fund, 15,* 158-170.

Das, J. K., & Chakraborty, G. (2015). The hedging performance of commodity futures in India: an empirical study on some agricultural commodities. *International Journal of Information, Business and Management*.

Kaur, H. P., & Anjum, B. (2013). Agricultural commodity futures in India: A literature review. *Galaxy International Interdisciplinary Research Journal, 1*(1), 35-43.

Fantacci, L., Marcuzzo, M. C., & Sanfilippo, E. (2010). Speculation in commodities: Keynes' 'Practical Acquaintance' with futures markets. *Journal of the History of Economic Thought, 32*(3), 397-418.

Maravi, A. S. (2015). Performance analysis of Indian agricultural commodity market. *International Journal of Commerce, Business and Management (IJCBM), 4*(2), 1125-135.

Singh, A., & Pal, N. (2015). Testing seasonality and efficiency in Chana futures market. *Apeejay Business Review, 14*(2).

Jena, P. K. (2016). Financialization of commodity market in India: A closer look at the evidence. *The Romanian Economic Journal,* 147-167.

Sehrawat, S. (2015). Impact of futures contract on agricultural commodity prices: An Indian Perspective. *International Journal of Development Research, 5*(3), 3740-3744.

Sendhil, R., Kar, A., Mathur, V. C., & Jha, G. K. (2013). Price discovery, transmission and volatility: Evidence from agricultural commodity futures. *Agricultural Economics Research Review*, *26*(1), 41-54.

Shakeel, M., & Purankar, S. (2014). Price discovery mechanism of spot and futures market in India: A case of selected agri-commodities. *International Research Journal of Business and Management, 8*(8), 50-61.

Singh, A. (2014). Commodity futures market efficiency and related issues: A review of existing literature. *Asian Journal of Business and Economics, 4*(4), 1-21.

Takatsuki, Y. (2008). The Formation of an Efficient Market in Tokugawa Japan. *ISS discussion paper series* F-143.

Tobergte, D. R., & Curtis, C. (2013). Price discovery process and volatility spillover of chilli spot and futures prices evidence from National Commodity and Derivative Exchange Ltd (NCDEX). *International Journal of Engineering and Management Research (IJEMR), 3*(12), 1-23.

Tripathy, T. (2008). Volatility and price integration in primary commodities market: A strategic direction in India. *The ICFAI Journal of Business Strategy, 5*(1), 7-21.

Varadi, V. K. (2012). An evidence of speculation In Indian commodity markets**.** *MPRA Journal.*

AUTHOR GUIDELINES

Submitted manuscripts should not have been previously published and should not be submitted for publication elsewhere while they are under consideration.

Page 1 should include the full title of the paper, a proposed short title for the paper (6-8 words) and the names and affiliations of all authors. Give the full address including email, telephone and fax of all authors. Clearly indicate which author will act as primary contact for all correspondence and who will be responsible for checking proofs (corresponding author). Include the names of any sponsors of any research contained in the paper, along with grant numbers. Supply biographies of no more than 100 words on each author's personal history and current interests. Author details should not be included on any other part of manuscript.

Page 2 should include the full title of the paper, an abstract of no more than 250 words.

Page 3 should include the full title followed by the text of the manuscript.

To enable the publisher to disseminate the author's work to the fullest extent, the author must sign a **Copyright Transfer Agreement** transferring copyright in the article from author to publisher. Without this we are unable to accept the submission

MANUSRIPT STYLE

The language of the journal is English. 12-point type in one of the standard fonts: Times, Helvetica, or Courier is preferred. It is not necessary to double-line space your manuscript. Tables must be on separate pages after the reference list, and not be incorporated into the main text. Figures should be supplied as separate figure files.

Please supply the full title, short title of up to 70 characters and names and affiliations of all authors. Give the full address, including email, telephone and fax, of the corresponding author who is to check the proofs.

Include the name(s) of any **sponsor(s)** of the research contained in the paper, along with **grant number(s).**

Enter an **abstract** of up to 250 words for all articles [except book reviews]. An abstract is a concise summary of the whole paper, not just the conclusions, and is understandable without reference to the rest of the paper. It should contain no citation to other published work.

The journal will publish articles from around 4000 to 6000 words.

Reference style in the text

Single authored work, Marsden (2001), or (Marsden, 2001).

Joint authored work, Addis and Holbrook (2001), or (Addis and Holbrook, 2001)

More than two author: Moutinho et al. (2001), or Moutinho et al. (2001:37)

Where reference is made to more than one work by the same author published in the same year, identify each citation in the text as follows:

(Collins, 1998a; 1998b), or Collins (1998a; 1998b)

Multiple citations should be separated by semicolons (Addis & Holbrook 2001; Collins 1998b) in alphabetical order of author.

Reference style at the end of the text: List all references cited in the text at the end of the article under a separate heading entitled 'References'. List alphabetically by author, including last names and initials of first names of all authors: multiple entries by one author be listed separately, repeating the author's name each time, from earliest to most recent publication. Article titles should be in sentence case, followed by journal title which should be in italics. Include volume (issue), and page numbers:

Marsden D.2001. Deconstructing consumer behavior: theory and practice.*Journal of Consumer Behaviour* 1 (1): 9-21

Addis M, Holbrook MB. 2001. On the conceptual link between mass customization and experiential consumption: an explosion of subjectivity. *Journal of Consumer Behaviour* 1 (1): 50-66.

Moutinho LA, Davies FM, Goode MMH, and Ogbonna E. 2001. Critical factors in consumer supermarket shopping behaviour: a neural network approach. *Journal of Consumer Behaviour* 1 (1): 35-49.

References for books and edited works should follow the same conventions for author details. Examples:

Landsman M.2005.*Dictatorship and Demand: The Politics of Consumerism in West Germany*. Harvard University Press: Cambridge, MA.

Douglas B, Saren M. 2005. The communication of marketing: a critical analysis of discursive practice, in *Marketing Communication: New Approaches Technologies and Styles*, Allan J. Kimmel (ed.). Oxford University Press: Oxford; 278-296.

Online citations should include date of access. Examples:

Pabillano J.2006. Available at http://adbusters.org/the_magazine/62/Bad_Pharma.html [accessed on 31 August 2006].

Consumer Union. 2006. Available at http://consumersunion.org [accessed on 25 March 2006].

All references must be complete and accurate. Where possible the DOI for the reference should be included at the end of the reference. Online citations should include date of access. If necessary, cite unpublished or personal work in the text but do not include it in the reference list.

Illustrations: Supply each figure as a separate file in either .tiff or .eps format, the figure number and the top of the figure indicated. Compound figures e.g. 1a, b,c should be supplied as one figure. Tints are not acceptable. Lettering must be of a reasonable size that would still be clearly legible upon reduction, and consistent within each figure and set of figures. Where a key to symbols is required, please include this in the artwork itself, not in the figure legend. All illustrations must be supplied at the correct resolution:

Black and white and colour photos - 300dpi

Graphs, drawings etc - 800dpi preferred; 600dpi minimum

Combinations of photos and drawings 9black and white and colour) - 500dpi

XIBA Business Review

SUBSCRIPTION INFORMATION

Dispatch Address:-

The Manager,

XIBA Business Review

Plot No-56, 1st Floor

Deepali Enclave, Pitampura

New Delhi -110034

Ph —09212715375

Subscription Amount for year 2018

	Print	Print + Online
Indian Region	Rs 2700	Rs 3500
International	USD 150	USD 180
Price mentioned is for Academic Institutions & Individual. Pricing for Corporate available on request. Price is Subject to change without prior notice.		

Payment can be made through D.D. at par cheque in favour of "**Publishing India Group**" payable at **New Delhi** and send to above mentioned address.

Disclaimer

The views expressed in the Journal are of authors. Publisher, Editor or Editorial Team cannot be held responsible for errors or any consequences arising from the use of Information contained herein. While care has been taken to ensure the authenticity of the published material, still publisher accepts no responsibility for their inaccuracy.

Journal Printed at Anvi Composers, Paschim Vihar

Copyright

ABOUT XIBA

St.Xavier's College is run by the Jesuits (Society of Jesus), in the name of Society of St. Francis Xavier, a body registered under the Societies Registration Act, (S.No.3 of 1920 - 21) having its office at Palayankottai. The College was started in 1923 by the dedicated French Jesuit Missionaries in Palayankottai. In recognition of its service and to increase its efficiency still further, autonomy was conferred on St.Xavier's College with effect from June 1987.

The College was accredited with Five Stars by the National Assessment and Accreditation Council (NAAC) on 17th April 2000 and reaccredited with 'A' Grade by NAAC with CGPA of 3.5 in April 2012. UGC conferred on the college the status of "College with Potential for Excellence" in 2004 and for the Second time in 2010.

XIBA is a Department of Management Studies,St.Xavier's College, affiliated to Manonmaniam Sundaranar University, Tirunelveli and approved by AICTE in August 2012. It is a Jesuit B School run by Jesuits of Tamilnadu, who run LIBA-Chennai, XLRI-Jamshedpur, XIM-Bhuvaneswar and JIM-Trichy.

The core of XIBA education lies in forming leaders who would make a difference possitively in the lives of people. In its every activity, be it academic or non-academic, XIBA aims at formation of character of students. As in its motto, XIBA forms excellent leaders with ethics.

VISION

To form competent, committed, creative and compassionate leaders who excel in what they feel, think and act with values of Justice, Peace and Love.

MISSION

* To unearth innate talents and build positive self image.
* To build skills that make the students become able individuals.
* To acquire knowledge that shapes the students become capable persons.
* To develop an attitude that helps to be socially responsible.
* To gain confidence to become entrepreneurs.
* To help students become global citizens with local concerns.

In association With:

PublishingIndia.com

Publishing India Group
56, Deepali Enclave, Pitampura, New Delhi-110034
Contact: 011-28082485; 011-47044510
info@publishingindia.com

Xavier Institute of Business Administration (XIBA)
St. Xavier's College, Palayankottai,
Tirunelveli - 627 002, Tamilnadu, India
Phone: 0462 - 4264441 / 4264442
Email: xibatvl@gmail.com
Website: www.xibasxc.com