Print : ISSN : 0019-512X | Online : ISSN : 2454-6801

THE INDIAN JOURNAL OF COMMERCE

Quarterly Publication of the Indian Commerce Association

Vol. 72 **No. 3 & 4** **July-December, 2019**

The Indian Journal of Commerce
A Quarterly Refereed Journal

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

The Indian Journal of Commerce is published four times in a year i.e., March, June, September and December. The Indian Journal of Commerce is freely distributed to all members.

Correspondence: All correspondence regarding publications, and membership subscriptions should be addressed to : The Managing Editor, The Indian Journal of Commerce, School of Management Studies, Indira Gandhi National Open University (IGNOU), Maidan Garhi, New Delhi 110 068, E_mail- nkishor@ignou.ac.in

THE INDIAN JOURNAL OF COMMERCE

Quarterly Publication of the Indian Commerce Association

Vol. 72 **No. 3 & 4** **July-December, 2019**

Contents

Notes for Contributors

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

Two copies of the manuscript typed in double space on A4 size bond paper should be submitted Electronically.

All contributions submitted will be subjected to peer review. The decision of the Editorial Committee will be the final.

First page should consist of title of the paper, name(s), of author (s) with all details and abstract not exceeding 150 words. Second page should start with the title of the paper again, followed by the text.

In captions for tables, figures, and column heading in tables, the first letter of the first word should be capitalised and all other words should be in lower case (except proper nouns). For example Table 5. Price ratios between edible groundnut kernel and other edible nut kernels. **Footnotes** in the text should be numbered consecutively in plain Arabic superscripts. All the footnotes, if any, should be typed under the heading 'Footnotes; at the end of the paper immediately after 'Conclusion'.

Follow the Author-date in-text reference: e.g. Hooda (1997) observed that ... A study (Grover et. Al. 1998) found that .... When it is necessary to refer to a specific page (s), cite it in the text as : Hooda (1997 P.105) observed that ... A study Hooda 1997a, Hooda 1997b, Hooda 1997c, so on.

Only cited works should be included in the **'References'** which should appear alphabetically at the end of the paper. Follow the reference citation strictly in accordance to the APA Referencing style. For example:

Book : Narasimham, N.V. (1994). *A model for the commodity price system analysis.* New Delhi : Himalaya Publications.

Journal Article : Alagh, Y.K. (1997). Agriculture trade and policies. *The Indian Journal of Commerce* L (192) : 1-11.

Government Publication : Government of India, Ministry of Communications, Department of Telecommunications (1995). Annual report 1994-95. New Delhi : Government of India, Ministry of Communications, Department of Telecommunications.

Chapter in a Book : Gilberto Mendoza, (1995). *A premier on marketing channels and margins.* Pages 257-276 in Prices, products and People (Gregory J. Scott, ed.) London. Lynne Rienner Publishers.

All manuscripts should be sent to the Managing Editor, The Indian Journal of Commerce, School of Management Studies, IGNOU, Maidan Garhi, New Delhi 110 068. Tel: 011-29535266, E-mail nkishor@ignou.ac.in

Lasertypeset by: Tessa Media & Computers, C-206, A.F.E-II, Jamia Nagar, New Delhi-25

Printed by: KIIT Deemed to be University, Bhubaneswar, Odissa

Published by Prof. Nawal Kishor on behalf of the Indian Commerce Association.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Exploring Volatility Transmission and Spillovers Among Selected SAARC and Developed Countries

VANITA TRIPATHI AND RITIKA SETH

Abstract: This paper has tried to explore the possibility and extent of Volatility transmission and spillovers among the stock markets of selected SAARC countries and selected three Developed countries of the world. Further, it has attempted to look for the existence of Asymmetric effect in the stock markets of selected SAARC countries. The data set consists of daily closing values of benchmark stock indices of selected SAARC and developed countries for more than 27 years period starting from November 5th, 1991 till December 31st, 2018. The research objectives are tested not just for the complete sample period but for Sub-periods as well. The data is analysed using ADF and PP Unit Root tests and the family of ARCH – GARCH models. The results of ARCH – GARCH model indicate that the volatility in the stock markets of selected four countries do get affected by the volatile behaviour persisting in the stock markets of rest of the selected SAARC countries as well as selected three developed countries. E-GARCH model points towards the existence of Asymmetry effect in the stock returns behaviour of Indian, Pakistan and Sri Lankan stock markets. Varying results have been obtained for sub-periods. This study is unique as its emphasises on selected SAARC countries, for which there is dearth of literature. Moreover, the time period of study is substantial. Sub-period analysis has also been carried on to check for the impact of Asian and global financial crisis. Therefore, its results can be of great help in formulating portfolio diversification strategies by potential investors. The findings also have noteworthy value for government, regulators, policy makers, academicians and researchers.

Keywords: ARCH – GARCH, Asymmetry Effect, E-GARCH, SAARC, Time Series Econometrics, Volatility Transmission.
JEL Codes: C40, F36, G01

Introduction

In this era of globalization and liberalization of countries, the economic growth of any country is not isolated; rather it depends much on the integration and

Dr. Vanita Tripathi is Professor, Department of Commerce, Delhi School of Economics, University of Delhi, New Delhi – 110007. and Ms. Ritika Seth (Corresponding Author) is PhD. Research Scholar, Department of Commerce, Delhi School of Economics, University of Delhi, New Delhi – 110007.

regional economic alliance with other countries. The integration of stock markets across the globe has increased in recent times as compared to two decades back because of easier international cross listing and trading of securities and revolution in the information technology. The cross listing of company's stocks internationally has augmented the curiosity among academicians and investors towards the subject of co – movement of different stock markets of the world since a shock occurred in one market is quickly transmitted to the others. These also lead to volatility spillovers from one market to other markets, i.e., the volatility in one market is transmitted to the other inter-linked markets. An economy has greater opportunity for trade, economic development and growth if it is closely associated with the regional countries. However, the close integration and association with other regional countries might also result in the transmission of adverse economic conditions persisting in other countries. It has become very important to understand the information linkages and correlation among global stock markets for the purpose of taking financial decisions relating to investment and risk management as they have a considerable impact on possible advantages from international portfolio diversification and on a country's financial stability.

The focus of the present research paper is on examining the existence and extent of volatility transmission among the stock markets of selected four SAARC countries. South Asian Association of Regional Cooperation (SAARC) is a regional trade bloc that was founded in 1985 in Dhaka with the collaboration of seven South Asian countries (Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka). Afghanistan also became the member of SAARC in 2005. The basic objective behind the formation of SAARC is to bring collective economic, social, technical, and cultural development of all its member states. There is extreme diversity in South Asian region in terms of the size of countries, their level of economic and social development, governance system, weather, languages and culture. The combined economy of all SAARC countries is 3rd largest in the world after the USA and China in terms of GDP (PPP) and is 8th largest in the terms of nominal GDP. While, SAARC nations comprise only 3% of the world's area, their population is close to one-fourth of the world's total population. India can be called a leader in SAARC as it covers over 70% of the total area and population among these eight countries. Moreover, India contributes approximately 80% of SAARC total GDP. Some of the significant steps that have been initiated in order to improve the integration among the regional capital markets of SAARC countries include SAARCFINANCE (1998), South Asian Federation of Exchanges – SAFE (2000) and South Asian Securities Regulators' Forum – SASRF (2005).

Therefore, the focus of this research paper is mainly on the South Asian markets that have received relatively little research interest by the researchers. There are plethora of studies that have been carried out in the past studying the presence and extent of volatility transmission among several countries of the world, but, there is hardly any study that has specifically focussed on the emerging economies of South Asia together and extensively as well as the developed economies of the world. Moreover, there is no study that has concentrated on recent data with respect to these four selected SAARC countries and that too for such a long-time span of over 27 years and using the most advanced econometric techniques. Sub-period analysis has also been carried on checking for the impact of Asian and global financial crisis. This makes our study unique and an important contribution to the existing literature.

Objectives

The main research objectives of the present study are:

- To test whether there is volatility transmission in the stock markets of selected four SAARC countries among themselves and from the stock markets of selected three developed countries of the world.
- To check for the presence of asymmetric or leverage effect in the stock markets of selected four SAARC countries.
- To check if there is any change in the extent of volatility transmission and spillovers across sub-periods in the stock markets of selected four SAARC countries among themselves and from the stock markets of selected three developed countries of the world.
- To check if there is any change in the presence of asymmetric or leverage effect in the stock markets of selected four SAARC countries across sub-periods.

Hypotheses

Based on the above objectives, the following null hypotheses have been tested:

H_1: There is no significant volatility transmission and spillover in the stock markets of selected four SAARC countries among themselves and from the stock markets of selected three developed countries of the world.

H_2: There is no asymmetric or leverage effect present in the stock markets of selected four SAARC countries.

H_3: There is no significant change in the extent of volatility transmission and spillovers across sub-periods in the stock markets of selected four SAARC countries among themselves and from the stock markets of selected three developed countries of the world.

H_4: There is no change in the presence of asymmetric or leverage effect in the stock markets of selected four SAARC countries across sub-periods.

Literature Review

The focus of most of the studies is though on discovery of the extent of interdependence and causality among the stock markets of different countries, but this needs to be understood that the information transmission between stock markets is not only on account of mean returns but can also be attributed to volatility spill overs. Thus, checking the volatility spillovers among the stock markets of different countries has also been a topic of great interest among the researchers due to the possibility of reaping potential gains through international diversification.

Hamao, Masulis and Ng (1990) looked for spill-over effects in open-to-close stock returns by focussing on major stock indices of Tokyo (Japan), UK (London) and USA (New York) for a three-year period. They found a statistically significant correlation between the London and New York open-to-close returns and there was an evidence of price volatility spill over from USA to Japan, UK to Japan and USA to UK using ARCH family of econometric models.

Past research efforts, such as King and Wadhwani (1990), Cheung and Ng (1992), Theodossiou and Lee (1993), Susmel and Engle (1994), Liu and Pan (1997) and Miyakoshi (2003) mainly concentrated on mean and volatility spill over effects among the global stock markets. Most of them found US market to be the leader in terms of significant spillover effects transmitting from US market to the stock markets of other countries. However, the structures of information transmission observed a change post stock market crash of October 1987.

Koutmos and Booth (1995) investigated the transmission mechanism of price and volatility spillovers across the New York, Tokyo and London stock markets using E-Garch methodology. A before and after October 1987 crash analysis reveals that the linkages and interactions among the three markets have increased substantially in the post-crash era. Similar results were reported by Kanas (1998) for three largest European markets, London, Frankfurt and Paris. He also pointed out the asymmetric nature of spillovers in the sense the effect of bad news in one market has a greater effect on the volatility of another market than good news.

Chiang and Doong (2001) tried to examine the empirical relationship between the stock market returns and volatility based on seven Asian stock market indexes by applying GARCH (1,1) and TAR-GARCH models. It was found that four out of the seven Asian stock markets had significant relationship between stock returns and unexpected volatility and there was presence of asymmetric effect on conditional volatility. Yang (2005) also examined the international stock market correlations among five Asian Tigers using Engle's (2002) dynamic conditional correlation (DCC) analysis under multi-variate GARCH framework and found the existence of volatility contagion across markets. The results revealed the presence of time varying volatility with volatility clustering, high persistence and predictability. The parameter defining asymmetry in the E-GARCH model also came significant.

Mukherjee and Mishra (2006) focussed on studying the return and volatility spillovers for Indian stock market with that of twelve other developed and emerging Asian countries. The results revealed the presence of positive and significant contemporaneous intraday (open-to-close) return spillover among the markets of almost all the countries except for China and Sri Lanka. Karmakar (2007) investigated the heteroskedastic behaviour of the Indian stock market using family of GARCH models. Similar studies were conducted by Lee (2009), Mishra and Rahman (2010), Mukherjee and Mishra (2010), Singhania and Prakash (2014), Jebran and Iqbal (2016), Tripathi and Chaudhary (2016), Tripathi and Seth (2016), Jebran, Chen, Ullah and Mirza (2017) and Savadatti (2018) for Asian stock markets.

Adrangi, Chatrath and Raffiee (2014) investigated the daily volatility spillovers across equity indices of US, Brazil, Argentina, and Mexico for the period of August 2007 through August 2012 using Bi-Variate VAR-GARCH and VAR-EGARCH models. The results indicated the presence of leverage effect and bi-directional volatility spillovers. Similar results were reported by Natarajan, Singh and Priya (2014) across five international markets, namely, US, Australia, Brazil, Hongkong and Germany and Abidin, Reddy and Zhang (2014) for Australia, New Zealand, Japan, China and Hongkong.

Abbas, Khan and Shah (2013) conducted a similar study for regional Asian stock markets of India, China, Pakistan and Sri Lanka along with four developed countries of USA, UK, Japan and Singapore. There was evidence of volatility transmission among the stock markets of selected countries, especially from developed countries to all these Asian countries.

Lakshmi, Visalakshmi and Shanmugam (2015) tried to analyse the strength of transmission of shocks from USA stock market to the stock markets of BRICS countries for the entire sample period starting from January, 2001 till May, 2012. They also checked for the change in the level of intensity of shocks due to the occurrence of global financial crisis that emanated in USA. VAR, Granger causality test and Co-integration tests have been employed. The results revealed the presence of both long run co-integration and short-run causal relationships among the stock markets of US-BRICS. The extent of causality amplified during the period of 2007-2009, when global financial crisis cropped up in USA.

Data and Methodology

Data

The data consists of closing values of daily benchmark stock indices of four out of eight SAARC countries, namely, Bangladesh, India, Pakistan and Sri Lanka and three developed countries of the world, namely, USA, UK and Japan. The time period of study spans over 27 years period starting from November 5th, 1991 till December 31st, 2018. Such a long period holds great significance in reaching at important conclusions. There have been significant economic developments that took place in each of the SAARC countries post 1991 affecting the performance of stock markets and ultimately the stock returns. Because of several regional agreements, the trade and commerce has also grown in SAARC countries post 1991. Most of the SAARC countries are now considered as emerging economies of the world.

Only four countries out of the eight (SAARC) countries could be included in the study because of non-availability of enough stock indices data for the other four markets. The stock markets of Nepal, Bhutan and Maldives are not much developed and there is very little trading activity. Nepal Stock Exchange Limited (NEPSE) is the only Stock Exchange of Nepal that operates under Securities Exchange Act, 1983. The Royal Securities Exchange of Bhutan is the only stock exchange in Bhutan founded in 1993 and it is one of the world's smallest stock exchanges, with a market capitalization of around 493.40 million Ngultrum (Nu. – Bhutanese Currency) and only 21 listed companies as of June 2018. It has only 3 trading days, Monday, Wednesday and Friday. There are lot of restrictions to deal in Bhutanese stock market, for instance, International companies are not allowed to be listed in Bhutan and they are also not permitted to work in the country. The Maldives Stock Exchange was established on April 14, 2002 and it is operated by the Maldives Stock Exchange Company Private Ltd., with effect from January 24, 2008. Currently, only 10 (8 Equity and 2 Debt) companies are listed on the Maldives Stock Exchange (MSE). The stock exchange of Afghanistan is not yet operational. (Tripathi and Seth, 2016).

The three developed countries chosen for analysis are USA, UK and Japan. The choice of developed countries is based upon the logic that USA economy is the world's largest national economy and has significant influence on the rest of the world including South Asian countries; UK's stock exchange is the largest stock exchange in Europe and can be considered as the next substantial and influencing economy of the world; and Finally, Japan's stock exchange is regarded as the Asian giant and third largest stock exchange in the world in terms of market capitalization. The stock exchanges are chosen for each of the selected country based on Volume of trading taking place at that exchange. The ones with the largest volume or market turnover are chosen and then the benchmark stock index of that exchange is selected for further study.

The stock market indices for Bangladesh, India, Pakistan and Sri Lanka are Dhaka Stock Exchange Broad Index (DSEX), Bombay Stock Exchange Sensitive Index (BSE Sensex), Karachi Stock Exchange 100 Index (KSE100) and Colombo Stock Exchange, All Share Index (CSEALL), respectively. The benchmark indices taken up in the study of three developed countries of USA, UK and Japan are S&P 500 Index, FTSE 100 Index and Nikkei 225 Index respectively. All the data has been collected from Bloomberg Database denominated in their respective local currency units and adjusted for dividends and splits. The data has been filtered to consider only those dates where all the selected stock markets were open for trading.

It is best to use daily frequency data for meeting research objectives as stock markets are dynamic in nature where the securities are dealt on real time basis. Therefore, to capture the potential interactions, daily data fits in the best. Also, we expect the spillovers between financial markets to take place within very short time intervals due to modern information technology.

The whole analysis has been done for the entire sample period as well as for the sub-periods. The entire time-period of study is divided into three sub-periods based on the dates of Asian Financial Crisis (1997) and Global Financial Crisis (2007). The purpose is to check if there is any change in the extent of volatility transmission because of the crisis situation.

Methodology

The closing values of all the stock indices have been converted into natural logarithm form to smoothen out the fluctuations and to create a linear data series for further analysis of data. Such conversion has the advantage that it removes most first-order serial correlation and logarithm series are of greater theoretical interest. The closing stock indices values are considered for analysis for the very reason that the closing prices are after the adjustment of noise generated during the trading period.

The daily log returns are calculated using the following formula:

$$R_t = ln\left(\frac{P_t}{P_{t-1}}\right) \qquad \text{..... Equation 1}$$

Where, P_t = Closing stock indices value of day (t).
P_{t-1} = Closing stock indices value of day (t-1).

ARCH Family of models are used to achieve the said research objectives. Before the application of Arch – Garch Model, the stock return series are checked for stationarity using ADF (Augmented Dickey Fuller) and PP (Phillips and Perron) Unit Root methods.

ARCH – GARCH Model

IHS (2013): "Autoregressive Conditional Heteroskedasticity (ARCH) models are specifically designed to model and forecast conditional variances. The variance of the dependent variable is modelled as a function of past values of the dependent variable and independent or exogenous variables.

ARCH models were introduced by Engle (1982) and generalized as GARCH (Generalized ARCH) by Bollerslev (1986) and Taylor (1986). These models are widely used in various branches of econometrics, especially in financial time series analysis.

The development of ARCH model requires providing three distinct specifications – one for the conditional mean equation, one for the conditional variance and one for the conditional error distribution. The simplest GARCH (1,1) specification can be seen as:

$$Y_t = X_t^{'} + \varepsilon_t \qquad \text{..... Equation 2}$$

$$\alpha_t^2 = \omega + \alpha\varepsilon_{t-1}^2 + \beta\sigma_{t-1}^2 \qquad \text{..... Equation 3}$$

Equation 2 is a Mean equation which is written as a function of exogenous variables with an error term and Equation 3 is a Conditional Variance equation where conditional variance σ_t^2 is a function of three terms:

- A constant term, ω.
- News about volatility from the previous period, measured as the lag of the squared residual from the mean equation, ϵ_{t-1}^2 (the ARCH term).
- Last period's forecast variance, σ_{t-1}^2 (the GARCH term).

The (1, 1) in GARCH (1, 1) refers to the presence of a first-order autoregressive GARCH term (the first term in parentheses) and a first-order moving average ARCH term (the second term in parentheses). An ordinary ARCH model is a special case of a GARCH specification in which there are no lagged forecast variances in the conditional variance equation—*i.e.,* a GARCH (0, 1)." (p.207-208)

E-GARCH Model

According to IHS (2013): The E-GARCH or Exponential GARCH model was proposed by Nelson (1991). The specification for the conditional variance is:

$$\frac{Log(\sigma_t^2) = \omega + \sum_{j=1}^{q} \beta_j Log(\sigma_{t-j}^2) + \sum_{i=1}^{p} \alpha_1 \left| \frac{\varepsilon_{t-1}}{\sigma_{t-1}} \right| + \sum_{k=1}^{r} \gamma_k \varepsilon_{t-k}}{\sigma_{t-k}} \quad \text{..... Equation 4}$$

The left-hand side of the equation is the log of the conditional variance. This implies that the leverage effect is exponential, rather than quadratic, and that forecasts of the conditional variance are guaranteed to be non-negative. The presence of leverage effects can be tested by the hypothesis that $\gamma_i < 0$. The impact is asymmetric if $\gamma_i \neq 0$. (p.221)

E-views 8.0 package program is used for analysing the data and application of econometric techniques.

Results

Table 1: Results of ADF and PP Unit Root Test at level

Log returns of Stock Index	Level: ADF Intercept	ADF Trend and Intercept	PP Intercept	PP Trend and Intercept
	t – statistics			
Bangladesh	-61.76824*	-61.77336*	-62.25878*	-62.21338*
India	-59.12852*	-59.12166*	-59.20455*	-59.19745*
Pakistan	-38.65643*	-38.65128*	-56.78031*	-56.77394*
Sri Lanka	-23.38757*	-23.38462*	-54.54038*	-54.53420*

*Significant at 1%; **Significant at 5%

Source: Author's own computation

ADF and PP Unit Root Tests

The result of ADF and PP Unit Root test suggest that the stock returns series of all the selected four SAARC countries are stationary at level. The results are reported in Table 1.

Since the stock returns series are stationary at level, the further analysis of data using ARCH-GARCH model is done using the stock returns series of selected four SAARC countries.

ARCH – GARCH Model

An effort has been made to investigate the extent of volatility transmission among the stock markets of selected SAARC countries. It is fascinating to understand whether the geographical proximity causes more volatility spillovers or it is other factors, for instance, maturity of the market, cross country bilateral trade, openness of the economy, etc. that are more responsible for creating volatility shocks.

Autoregressive Conditional Heteroskedasticity (ARCH) model requires the fulfillment of two conditions:

i) Volatility clustering should be present. Volatility clustering means that period of high volatility tends to follow periods of high volatility whereas periods of low volatility tends to follow periods of low volatility.

ii) The residual diagnostic ARCH test for presence of heteroskedasticity should be rejected. The null hypothesis of the ARCH test is that there is no ARCH effect in the regression equation.

The stock return series of all the four selected SAARC countries are found to have ARCH effects (as per the result of ARCH-LM test, the value of F-statistics is substantial enough with less than 0.05 probability that makes it reasonable enough to reject the Null Hypothesis stating that there is no ARCH Effect in residuals) and they are autocorrelated along with fat-tail distribution, which makes it reasonable to apply Arch – Garch Model on these stock return series.

Here, the ARCH-GARCH model is applied separately on all the four selected SAARC countries stock markets. The GARCH model estimation involves the valuation of two equations, namely, conditional mean equation and conditional variance equation. The first part of the model i.e. mean equation for Bangladesh stock market is:

$$DlogBang = C(1) + \varepsilon \qquad \text{….. Equation 5}$$

The similar equation can be written for India, Pakistan and Sri Lanka as well.

The regression is run on constant. The above mean equation, when tested for volatility clustering and ARCH effect satisfies both the above conditions for all the markets and thus, can be represented through ARCH-GARCH model.

The second part of the model is the application of variance equation for checking the volatility in Bangladesh stock market. It is:

$H_t = C(2) + C(3)^*\varepsilon_{(t-1)}^2 + C(4)^* Ht\text{-}1$ ….. Equation 6

Where,

H_t = Variance of the residual error term derived from equation (5). It is volatility of Bangladesh stock returns.

$å^2_{(t-1)}$=Previous day's squared residual derived from equation (5). It is also known as previous day's stock return information about volatility or ARCH term.

H_{t-1} = Previous day's residual variance. It is also known as GARCH term.

DlogInd, DlogPak and DlogSlk are the exogenous variables or variance regressors to check if the volatility in India, Pakistan and Sri Lanka affects the volatility of Bangladesh stock market.

Similarly, DlogUSA, DlogUK and DlogJapan are considered as exogenous variables to check if the volatility in USA, UK and Japan affects the volatility of Bangladesh stock market.

The similar equations can be written for rest of the three selected SAARC countries as well. For the present study Normal Gaussian distribution has been used. The results are summarized in Table 2.

Table 2 reveals that both the ARCH and GARCH term are significant for the stock markets of all the four selected SAARC countries. The significant ARCH term implies that previous day's index return information can influence today's return volatility and a significant GARCH term implies that previous day's Index return volatility can influence today's Index return volatility. C(4), the GARCH parameter is greater than C(3), the ARCH parameter for all the four selected SAARC countries, indicating that the volatility in the stock returns of each of the selected SAARC countries is more sensitive to its volatility in the previous period than to new shocks in the previous period pointing towards the persistent nature of volatility. It also implies that the market has a memory longer than one period. Further, the sum of Arch and Garch coefficients is close to one for three out of four selected SAARC countries, again indicating that the shocks are persistent but not explosive pointing towards mean reverting process. For Bangladesh stock market, the sum of ARCH and GARCH terms is less than one signalling mean reverting variance process. The intercept term is also found to be significant in almost all the scenarios indicating the persistence of average long-term volatility for common stock returns in Bangladesh stock market.

Table 2: Results of ARCH-GARCH model for selected SAARC countries (daily data)

Dependent Variable/ Coefficients		Bangladesh	India	Pakistan	Sri Lanka
		Coefficients (Z- Statistics in parenthesis)			
ARCH Term (C(3))		0.322521* (18.26983)	0.095753* (24.59983)	0.113259* (18.21279)	0.372155* (36.25509)
GARCH Term (C(4))		0.389698* (27.48324)	0.902732* (212.6363)	0.862503* (140.7328)	0.711610* (129.3615)
Volatility	Bangladesh	N.A.	-0.000145** (-2.215313)	-0.0000561* (-1.082648)	-0.000124* (-4.985350)
	India	-0.001533* (-21.53094)	N.A.	-0.000595* (-9.079797)	0.0000091 (-0.232589)
	Pakistan	0.000823* (4.022023)	-0.000150** (-2.143696)	N.A.	0.000347* (21.74513)
	Sri Lanka	0.002613* (38.59625)	-0.000139*** (1.711419)	-0.000447* (-7.665642)	N.A.
	USA	0.007650* (53.04063)	-0.000471** (-2.201899)	-0.000363** (-1.992568)	-0.000342* (-3.857991)
	UK	-0.006412* (-31.87517)	-0.000484** (-2.280697)	0.001031* (5.394341)	0.000184*** (1.928707)
	Japan	-0.000860* (-3.481283)	-0.000368* (-3.773602)	-0.000320* (-3.328423)	0.0000648 (1.408533)

*Significant at 1%; **Significant at 5%; ***Significant at 10%

Source: Author's own computation

The results further indicate that the volatility in Bangladesh and Indian stock market is significantly affected by the volatility persisting in the stock markets of all three remaining SAARC countries as well as the volatile conditions prevailing in the stock markets of selected three developed countries of USA, UK and Japan. The volatility in Pakistan stock market is significantly affected by the volatile conditions prevailing in the stock markets of India and Sri Lanka among the SAARC countries and all three selected developed countries of the world. Finally, the volatility in Sri Lankan stock market is significantly affected by the volatile conditions prevailing in the stock markets of Bangladesh and Pakistan among the SAARC countries and USA and UK among the selected developed countries.

The results points towards the dominating characteristics of developed countries as the volatility persisting in the stock markets of all three selected developed countries are significantly getting transmitted to the stock markets of selected SAARC countries.

The reasons for such transmission of volatility from the stock market of one country to the stock markets of other countries can be attributed to the global nature of corporations. Markets across the world face lot of short-term volatility (frequent rise or fall in stock market) which is mainly driven by news and events in the global markets. For example, news/rumours related to economic recession in USA, fluctuations in the prices of global crude oil, speculations over the monetary policy review by FED, changes in the prices of global commodities, etc. are some fundamental reasons why the stock markets across the globe, including the Indian stock market react in a volatile manner on the basis of developments taking place in global markets.

After this, once again Arch effect is checked for and this time, we accept the Null hypothesis that there is no Arch effect present in the model at 5% level of significance.

E-GARCH Model

Exponential Generalized Auto Regressive Conditional Heteroskedasticity Model (E-GARCH) has also been applied in order to check for the presence of asymmetric effect in the stock returns data of selected four SAARC countries.

Table 3: Results of E-GARCH model for selected SAARC countries (daily data)

Coefficients	Bangladesh	India	Pakistan	Sri Lanka (Z- Statistics in parenthesis)
Arch Term	0.439880* (40.55773)	0.169640* (25.75445)	0.205580* (36.29186)	0.558670* (52.40619)
Garch Term	0.868634* (238.6581)	0.989894* (662.3451)	0.970899* (503.4426)	0.901456* (266.0686)
E-Garch Term	-0.006507 (-1.324648)	-0.019752* (-5.347434)	-0.033879* (-9.495000)	0.017294** (2.258364)

*Significant at 1%; **Significant at 5%; ***Significant at 10%

Source: Author's own computation

From Table 3, it has been found that both ARCH and GARCH coefficients for all four selected SAARC countries are significant at 1% level of significance and, the sum of Arch and Garch coefficients is more than one pointing towards persistent nature of shocks and mean reverting process. The coefficient for E-GARCH term indicates the asymmetry effect and it is expected to have negative sign as per the Null hypothesis that states 'Negative shocks creates more volatility as compared to Positive shocks of equal magnitude.' The coefficient of E-Garch term is found to be negative for all the four selected SAARC countries but it is significant in three out of four selected SAARC countries for the entire sample period and it can be stated that Asymmetric effect is significantly present in the stock returns behaviour of Indian, Pakistan and Sri Lankan stock market at 5% level of significance. Asymmetric effect is not significant in the stock market of Bangladesh.

Sub-Period Analysis

ADF and PP Unit Root Test

Table 4: Results of ADF and PP Unit Root Test at level for the Sub-periods

2. 3.		Level			
Log Returns of Stock Index	Sub - Periods	ADF Intercept	ADF Trend and Intercept	PP Intercept	PP Trend and Intercept
		t – statistics			
Bangladesh	1	-25.63700*	-25.62516*	-25.83468*	-25.82094*
	2	-36.16015*	-36.32448*	-36.25075*	-36.36870*
	3	-41.51499*	-41.53781*	-41.61457*	-41.62608*
India	1	-21.98654*	-21.97918*	-21.99121*	-21.98173*
	2	-37.71956*	-37.80554*	-37.72280*	-37.80714*
	3	-18.39171*	-18.38835*	-40.77290*	-40.76547*
Pakistan	1	-21.40880*	-21.43301*	-21.80806*	-21.82308*
	2	-24.00122*	-24.06059*	-35.78091*	-35.78663*
	3	-36.46513*	-36.46128*	-37.21912*	-37.21233*
Sri Lanka	1	-19.11373*	-19.09941*	-20.42706*	-20.41475*
	2	-27.23276*	-27.31960*	-33.60177*	-33.64217*
	3	-35.14347*	-35.20355*	-37.73989*	-37.69793*

*Significant at 1%; **Significant at 5%

Source: Author's own computation

The results of ADF and PP Unit Root test suggest that the stock returns series of all the four selected SAARC countries are stationary at level across Sub-periods, so the further analysis of data using ARCH-GARCH model is done using the stock returns series of selected four SAARC countries.

ARCH-GARCH Model

The Arch-Garch Model is applied on Sub – Periods with daily frequency of data. These Sub – Periods are created based upon the time of occurrence of Asian financial crisis (July 2, 1997) and Global financial crisis (August 9, 2007) respectively. The purpose is to check if there is any change in the extent of volatility transmission due to the occurrence of these crisis.

As discussed earlier, before the application of Arch-Garch Model, the two conditions need to be fulfilled. There should be presence of volatility clustering and the residual diagnostic ARCH test used to check the presence of heteroskedasticity should be rejected. It means that there should be ARCH effect present in the data set which implies that data is suffering from the problem of Autocorrelation and Heteroskedasticity.

It is found from the results that ARCH effect is not present in the stock markets of Pakistan and Sri Lanka in Sub period 1 and Bangladesh stock market in Sub period 2. Therefore, Arch-Garch and even E-Garch model cannot be applied on the stock indices data of Pakistan and Sri Lanka for Sub Period 1 and Bangladesh stock market for Sub Period 2. The following set of comparisons can be made:

- Bangladesh – Sub Period 1 and 3
- India – Sub Period 1, 2 and 3
- Pakistan – Sub Period 2 and 3
- Sri Lanka – Sub Period 2 and 3

The results are summarized in Table 5 for each of the SAARC countries selected in the study.

The results of Arch-Garch model reported in Table 5 can be summarised as follows:

- Both the ARCH and GARCH term are significant for selected SAARC countries for all the relevant sub-periods.
- For Bangladesh stock market, there is found significant transmission of volatility from the stock market of Pakistan after the occurrence of Global financial crisis. However, the transmission of volatility from the stock markets of India and USA has come out to be insignificant in sub-period 3. The reason that could be attributed to such results can be limited exposure of Bangladesh to world events.

Table 5: Results of Arch – Garch model for selected SAARC countries (daily data – sub -period analysis)

Coefficients		Sub-Periods	Bangladesh	India	Pakistan	Sri Lanka
			(Z- Statistics in Parenthesis)			
ARCH Term		1	0.284076* (11.99826)	0.073845* (5.293042)		N.A.
		2	N.A.	0.108772* (8.756672)	0.191255* (10.10441)	0.393752* (10.39177)
		3	0.315696* (13.05730)	0.035676* (7.449635)	0.125893* (9.778398)	0.053999* (14.11814)
GARCH Term		1	0.390060* (21.12319)	0.905719* (50.19109)		N.A.
		2	N.A.	0.829653* (47.40889)	0.764757* (53.17602)	0.445118* (13.07981)
		3	0.697076* (40.69345)	0.955473* (185.4471)	0.794658* (47.86260)	0.940943* (296.9738)
Coefficients		Sub-Periods	Bangladesh	India	Pakistan	Sri Lanka
			(Z- Statistics in Parenthesis)			
Volatility	Bangladesh	1	N.A.	-0.000736* (-3.348443)		N.A.
		2		-0.000489*** (-1.817803)	-0.001013* (-5.108723)	-0.000353*** (-1.888359)
		3		-0.000225* (-3.255361)	-0.000288** (-2.344996)	-0.0000926* (-2.935607)
	India	1	-0.004091* (150.2132)	N.A.		N.A.
		2	N.A.		-0.001323* (-7.749757)	0.001692* (10.09573)
		3	0.000190* (1.301772)		0.000894* (5.599520)	-0.0000192 (-0.473057)
	Pakistan	1	0.000120* (-0.081261)	-0.000900* (-2.950075)	N.A.	N.A.
		2	N.A.	-0.000464** (-2.193486)		0.000555* (2.903547)
		3	0.000434* (4.752591)	0.000255* (3.778404)		0.0000682** (2.495753)

Contd...

Contd...

Sri Lanka	1	0.007754* (3.379260)	0.000816 (1.612928)	N.A.	N.A.
	2	N.A.	-0.000833* (-2.762922)	-0.000443* (-3.434675)	
	3	0.000563* (4.394750)	0.000231* (3.026214)	-0.000459* (-3.335946)	
USA	1	0.018929* (3.344020)	0.004129* (2.943655)	N.A.	
	2	N.A.	-0.002349* (-3.148603)	-0.001754** (-2.379282)	0.000644 (1.302220)
	3	0.0000826 (0.433204)	-0.000468** (-2.097222)	-0.000675** (-2.132075)	-0.000511* (-5.502137)
UK	1	-0.017381* (-3.813473)	0.000374 (0.275449)	N.A.	
	2	N.A.	0.000461 (0.597384)	0.002838* (3.939347)	-0.004154* (-8.748717)
	3	0.000619* (3.056073)	-0.000844* (-5.547181)	-0.001236* (-3.912020)	0.000130*** (1.788197)
Japan	1	-0.006981** (-2.221153)	-0.0003479* (-4.724530)	N.A.	
	2	N.A.	-0.000651*** (-1.902599)	0.000277 (0.709714)	0.001470* (4.630419)
	3	-0.000719* (-7.496552)	-0.0000369 (-0.505068)	0.000398** (2.386040)	0.0000978* (2.586834)

*Significant at 1%; **Significant at 5%; ***Significant at 10%

Source: Author's own computation

- For Indian stock market, first, all the three sub-periods could be tested for. It has been found that there is significant transmission of volatility from the stock market of UK after the occurrence of Global Financial Crisis and from the stock market of Sri Lanka after Asian financial crisis itself. However, the transmission of volatility from the stock market of Japan has come out to be insignificant in sub-period 3. The increased transmission of Volatile conditions in Indian stock market cab be attributed to the open nature of Indian economy. Lots of trade, cross-listings of shares, etc. can be commonly found in Indian economy.
- For Pakistan stock market, there no change is found in the transmission of volatility across the sub-periods except for the significant transmission of Volatility from the stock market of Japan in sub-period 3.

- For Sri Lankan stock market, there is significant transmission of volatility from the stock market of USA after the occurrence of global financial Crisis. However, the transmission of volatility from the stock market of India has turned out to be insignificant in sub-period 3.

E-GARCH Model

Table 6: Results of E-Garch model for selected SAARC countries (daily data – sub-period analysis)

Coefficients	Sub-Periods	Bangladesh	India	Pakistan	Sri Lanka
		(Z- Statistics in Parenthesis)			
Arch Term	1	0.566743* (11.99826)	0.222109* (8.311616)	N.A.	
	2	N.A.	0.220534* (10.90859)	0.255532* (17.05847)	0.716838* (31.75412)
	3	0.454839* (21.12319)	0.082232* (8.588717)	0.218177* (15.23372)	0.208077* (14.67484)
Garch Term	1	0.861186* (57.85740)	0.943416* (67.77820)	N.A.	
	2	N.A.	0.895368* (79.77637)	0.952687* (165.4100)	0.826772* (74.65132)
	3	0.934802* (150.2132)	0.996037* (1353.064)	0.912346* (130.1007)	0.984954* (444.5423)
E-Garch Term	1	0.111544* (4.414601)	0.054807* (4.356577)	N.A.	
	2	N.A.	-0.157331* (-12.22337)	-0.027449** (-2.462505)	-0.009555 (-0.495329)
	3	-0.109580* (-7.062171)	-0.045061* (-8.042606)	-0.153383* (-14.87027)	-0.011812*** (-1.897865)

*Significant at 1%; **Significant at 5%; ***Significant at 10%

Source: Author's own computation

The results of E-Garch model for the sub-periods of selected four SAARC countries are contained in Table 6. E-Garch model has also been applied only on those sub-periods where Arch effect is present and there is evidence of volatility clustering. It has been found that both ARCH and GARCH coefficients for all four selected SAARC countries are significant at 1% level of significance for all the sub-periods taken into consideration. Moreover, there is no change in the significance level of coefficient for E-Garch term across sub-periods that implies that there is no significant difference in the extent of asymmetric effect that is found in the stock markets of selected four SAARC countries across sub-periods except for Sri Lankan Stock market, where, Asymmetric effect was though present, but not significant in sub-period 2. However, after the occurrence of global financial crisis, i.e., significant asymmetric effect could be found in the stock market of Sri Lanka. Thus, it can be concluded that the occurrence of crisis situation is not a major determining factor for the presence of asymmetric effect in the stock returns behaviour of selected four SAARC countries.

Conclusions

This paper focussed on checking for the presence of volatility transmission among the stock markets of selected four SAARC countries and also the presence of asymmetric effect in these stock markets. The data consisted of daily stock indices of these four countries for more than twenty-seven years period starting from November 5th, 1991 till December 31st, 2018. The analysis is carried out using ARCH family of models. Apart from the analysis of objectives for the entire sample period, a sub-period analysis has also been carried on checking for the impact of Asian and global financial crisis.

The results of ARCH – GARCH model revealed that the volatility in the stock markets of selected four SAARC countries do get influenced by the volatility persisting in the stock markets of rest of the selected SAARC countries and selected three developed countries of the world. Chiang and Doong (2001), Yang (2005), Mukherjee and Mishra (2006), Karmakar (2007), Tripathi and Chaudhary (2016), Tripathi and Seth (2016), Jebran, Chen, Ullah and Mirza (2017) and Savadatti (2018) also found the similar results for different Asian stock markets. E-GARCH model pointed towards the presence of asymmetric effect in the stock markets of all the four selected SAARC countries, though the coefficient for E-GARCH term is insignificant for Bangladesh stock market. No significant changes in the extent of volatility transmission has been found in the results of sub-periods.

Policy Implications

The findings of present study can have significant implications for policy makers, regulators, government, potential investors, academicians and researchers.

Since, the volatility in the stock markets of selected four SAARC countries are found to get influenced by the volatile conditions occurring in the stock markets of rest of the selected SAARC countries as well as developed countries of the world, it implies that the investors cannot forecast and take their investment decision by considering one country in isolation. Similarly, the policy makers of selected SAARC countries need to review the policies of neighbouring countries as well as the developed countries while framing their own. There would be limited scope for the investors to earn abnormal returns through portfolio diversification. Such good results provide an incentive to the future researchers to carry out even a more extensive study covering more Asian countries (developed and emerging) besides SAARC countries and also provide robustness to the results by dividing the entire sample period into sub-periods based upon implementation of some major reforms in above selected countries for instance, dematerialisation of shares or automated trading system.

Limitations and Scope for Future Research

The study is confined to only four out of eight SAARC countries because the stock markets of rest four countries are either not developed or they are in their nascent stage of existence. So, a complete analysis of SAARC as a whole could not be performed. Further, the study is exclusively based on secondary data collected from Bloomberg Database. Therefore, the quality of the study depends purely on the accuracy, reliability and quality of the secondary data source.

In future, a greater number of developed countries can be considered and the study can be made more in line with the recent times by including the data for recently established stock markets of Nepal and Maldives among the SAARC countries.

REFERENCES

Abbas, Q., Khan, S., & Shah, S.J.A. (2013). Volatility transmission in regional Asian stock markets. *Emerging Markets Review, 16,* 66-77.

Abidin, S., Reddy, K., & Zhang, C. (2014). Intensity of price and volatility spillover effects in Asia – Pacific basin equity markets. *Australasian Accounting, Business and Finance Journal, 8(5),* 3-18.

Adrangi, B., Chatrath, A., & Raffiee, K. (2014). Volatility spillovers across major equity markets of Americas. *International Journal of Business, 19(3),* 255-274.

Cheung, Y. W., & Ng, L. K. (1992). Interactions between the US and Japan stock market indices. *Journal of International Financial Markets, Institutions and Money, 2,* 51- 70.

Chiang, T.C. & Doong, S.C. (2001). Empirical analysis of stock returns and volatility: evidence from seven Asian stock markets based on TAR-GARCH Model, *Review of Quantitative Finance and Accounting, 17(3),* 301-318.

Engle, R. (2002). Dynamic Conditional Correlation: A simple class of multivariate Generalized Autoregressive Conditional Heteroskedasticity models, *Journal of Business and Economic Statistics, 20(3),* 339-350.

Hamao, Y., Masulis, R.W., & Ng, V. (1990). Correlations in price changes and volatility across international stock markets. *Review of Financial Studies, 3(2)*, 281-307.

IHS Global Inc. (2013). Eviews 8 User's Guide I & II. Web-link: www.eviews.com.

Jebran, k., & Iqbal, A. (2016). Examining volatility spillover between Asian countries stock markets. *China Finance and Economic Review,4(6),* 1-13.

Jebran, k., Chen, S., Ullah, I. & Mirza, S.S. (2017). Does volatility spillover among stock markets varies from normal to turbulent periods? Evidence from emerging markets of Asia? *The Journal of Finance and Data Science, 3,* 20-30.

Kanas, A. (1998). Volatility spillovers across equity markets: European evidence. *Applied Financial Economics,8*. 245-256.

Karmakar, M. (2007). Asymmetric volatility and risk – return relationship in the Indian stock market. *South Asia Economic Journal, 8(1),* 99-116.

King, M.A., & Wadhwani, S. (1990). Transmission of volatility between stock markets. *Review of Financial Studies, 3(1),* 5-33.

Koutmos, G., & Booth, G.G. (1995). Asymmetric volatility transmission in international stock markets. *Journal of International Money and Finance, 14(6),* 747-762.

Lakshmi, P., Visalakshmi, S., & Shanmugam, K. (2015). Intensity of shock transmission amid US-BRICS markets. *International Journal of Emerging Markets, 10(3),* 311-328.

Lee, S.J. (2009). Volatility spillover effects among six Asian countries. *Applied Economic Letters, 16,* 501-508.

Liu, Y.A., & Pan, M. (1997). Mean and volatility spillover effects in the US and Pacific-Basin stock markets. *Multinational Finance Journal, 1(1),* 47-62.

Mishra, B., & Rahman, M. (2010). Dynamics of stock market return volatility: Evidence from the daily data of India and Japan. *International Business & Economics Research Journal, 9(5)*, 79-83.

Miyakoshi, T. (2003). Spillovers of stock return volatility to Asian equity markets from Japan and the US. *Journal of International Financial Markets, Institutions & Money, 13,* 383-399.

Mukherjee, K.N., & Mishra, R.K. (2006). Information leadership and volatility spillover across the countries: A case of Indian and other Asian equity markets. Indian Institute of Capital Markets 9th Capital Markets Conference Paper.

Mukherjee, K.N., & Mishra, R.K. (2010). Stock market integration and volatility spillover: India and its major asian counterparts. *Research in International Business and Finance, 24(2)*. 235-251.

Natarajan, V.K., Singh, A.R., & Priya, N.C. (2014). Examining mean-volatility spillovers across national stock markets. *Journal of Economics, Finance and Administrative Science, 19,* 55-62. Retrieved from: http://ssrn.com/abstract=874916

Savadatti, P.M. (2018). Association between Indian and U.S. stock markets: Volatility spillover effect using GARCH models. *Indian Journal of Research in Capital Markets, 5(1),* 25-33.

Singhania, M., & Prakash, S. (2014). Volatility and cross correlations of stock markets in SAARC nations, *South Asian Journal of Global Business Research*, *3(*2), 154 – 169.

Susmel, R., & Engle, R. F. (1994). Hourly volatility spillovers between international equity markets, *Journal of International Money and Finance, 13(2)*, 3-25.

Theodossiou P., & Lee, U. (1993). Mean and volatility spillovers across major national stock markets: further empirical evidence*. Journal of Financial Research, 16(Winter)*, 337- 50.

Tripathi, V. & Seth, R. (2016). Market efficiency, inter – linkages and volatility transmission in stock markets of selected SAARC countries. *South Asian Journal of Management 23(4)*, 149-174.

Tripathi, V., & Chaudhary, P. (2016). Estimating stock return volatility in Indian and Chinese stock markets. *International Journal of Banking, Risk and Insurance, 4(2),* 37-49.

Yang, S.-Y. (2005). A DCC analysis of international stock market correlations: the role of Japan on the Asian four tigers. *Applied Financial Economics Letters, 1(2)*, 89-93.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Relationship between Corporate Governance Mechanism and Market-Based Measurements in Indian & Gulf Cooperation Council (GCC) Listed Firms

WALEED M. AL-AHDAL AND TWINKLE PRUSTY

Abstract: The aim of study to analyze the impact of corporate governance mechanism on the marketing-based measurements of Indian and Gulf Cooperation Council (GCC) listed firms. This paper relies on secondary data collected from different sources for eight years from 2008-09 to 2015-16. Fifty companies from each emerging market have been selected. The study took two variables for measuring firm's value namely: Market value added (MVA) and Tobin Q. Board accountability score, audit committee score and transparency disclosure score were taken as proxies for corporate governance. Based on the sample data and its analysis, it is found that corporate governance practice in India has been more stringent than GCC countries according to the international codes of corporate governance. Findings reveal that in case of GCC firms, corporate governance mechanism significantly impacts firms' value. Moreover, corporate governance mechanism (BA, AC, and TD) in India significantly impacts firms' value. The present study contributes to the existing literature by providing a concise view of how corporate governance mechanism is followed by Indian & GCC listed firms.

Keywords: Corporate Governance, marketing-based measurements, India, GCC

Introduction

Nowadays awareness of Corporate Governance [CG] is rising and it has emerged as an important issue due to the continuous financial scandals all over the world. Corporate collapses of the recent past which involved companies such as (Polly Peck, 1991; Adelphia, 2002; Commerce Bank, 1991; Enron, 2001; World Com, 2002; etc.) due to the poor governance systems. The first British company was Polly Peck (1991), while Enron (2001) was the first American company to collapse (Mallin, 2013). Failures and scandals in the major firms affect the volatility of financial markets, and due to this, losses occurred to the stakeholders of corporations and primarily shareholders, to overcome with these failures

Waleed M. Al-Ahdal is Research scholar, Faculty of Commerce, Banaras Hindu University, and Twinkle Prusty is Professor, Faculty of Commerce, Banaras Hindu University, India.

Countries need to work on laws which provide a platform to handle the corporate disclosure and enhance the governance practices among the firms (Bayrakdaroglu et al., 2012; Chhaochharia & Laeven, 2009). Corporate governance (CG) issue received great acceptance in the recent period. It ensures the safety of the business reports through full transparency in the disclosure procedures and carries the moral dimension of the accounting practices along with it. It will lead shareholders and companies to apply rational and sound decisions; and if implemented properly, it will be helpful for business to attract investments and finance for their production process.CG is all about how do the corporations work and how much are they accountable to their shareholders. It describes an individual's rights and responsibilities (such as the board, managers, investors and other stakeholders) and clearly explains the rules and procedures for taking decisions on corporate matters, as well as the process that helps the company set goals and allows them to track performance (OECD, 1999).

Corporate governance describes as having legitimacy, accountability, and competence in the realm of policy and delivery of services by simultaneously respecting the law and human right (Srivastava, 2009). The concept can be easily understandable by the Cadbury report in which it is mentioned that corporate governance how the companies managed and controlled their working activities (Cadbury,2002). However; it can be said that governance can be good or bad, effective or ineffective but depend on what is incorporated during the governing practice and also based on the characteristic or quality values associated with it. The concept of corporate governance is not too old for India; it had started at the time of early 90's when the globalization was introduced which need transparency, accountability and good performance from the corporate executives and that reflect the requirement of the Corporate governance(Bhardwaj et al., 2014). The priority for CG in the GCC started gaining momentum in the early 2000 due to a chain of various unforeseen incidents in the business arena. It has recently emerged and grabed the attention of each one whether they are investors or corporate professionals. (Shehata,2015).

There is a vast difference between the Indian market and the GCC market in perspective of culture, economy and geographical area and because of dissimilarities, corporate governance and its financial performance required different guidelines for different countries. Hence, there are different guidelines which are recommended by these countries according to their corporate legal system, important regulations and monitoring policies but the fact that Asian countries have mainly family-owned business or concentrated similar to the US and United Kingdom, holding companies (Tsamenyi et al., 2011). Therefore, the developing countries should follow the guidelines suggested by the developed countries on corporate governance. Capable and efficient corporate governance has become a crucial in developing countries because of weak corporate governance structure, it is required to motivate corporate governance which shows transparency, managerial excellence to cope up with all fraudulent which help the company to attract foreign investors and enlarge its capital (Marn & Romuald, 2012). However, Chen & Shapiro, 2011 advocate that even though adopting proper codes, based on the OECD Principles in developing countries, they may not necessarily have good corporate governance in the presence of many problems including weak and loops in a legal system, poor investor protection, uncertain economies and government intervention. Many studies recommend that poor corporate governance practice result in inadequate performance and worry among stakeholders(Mcgee,2009).

The market-based measurement is characterized by its forward-looking aspect and its reflection of the expectations of the shareholders concerning the firm's future performance, which has its basis on previous or current performance. This type of information may be helpful for decision-making process to extract the best decision for planning, directing and controlling. The selection of performance evaluation depends on an organization's objectives, a clear calculation method to compare, and this is achieved by people who are involved in the Organization(Neely, 1999). The Organization for Economic Cooperation and Development (OECD) Principles of Corporate Governance represent a common basis that OECD member countries consider essential for the development of good governance practice. This study clarifies the mutual and interlocking relationship of corporate governance mechanism, and market-based measurements (Market value added, and Tobin q) which is affected by mechanisms of corporate governance in Indian and GCC listed firms. Therefore, most of the important requirements set out by the OECD principles regarding good corporate governance are defined in the companies act in India and these provisions have been supplemented by SEBI, and it is also directed to stock exchanges to amend new clauses in agreement with listed companies to improve governance practices (Pande & Kaushik, 2009). In addition to attracting foreign direct investment flows to the GCC countries, a number of international bodies thought that CG regulations required a smooth functioning of the business sector such as the International Financial Centre (DIFC) in Dubai, the world bank, IFC and OECD. Following this recognition, Hawkamah was founded in 2005, Hawkamah's principal objective is to help boards and businesses develop their CG practices in the Middle East and North African Institute of CG (MENA). Hawkamah is also primarily responsible for conducting various studies and surveys, involving different industries and governments in the development of different CG benchmarks that serve as catalysts to improve CG practices in the region (Hawkamah, 2016).

In the literature of corporate governance, a number of studies has been done to investigate the association between market-based measurements and good corporate governance in both developed and developing countries (Brown & Caylor, 2004; Darko et al.,2016; Farag et al.,2014; Klapper & Love, 2004; Sami et al.,2011). One literature stream finds that corporate governance is positively associated with the market-based measurements (Ammann et al., 2011; Brown & Caylor, 2006; Chong et al., 2009; Okiro & Aduda, 2015; Renders et al.,2010; Sami et al., 2011). Certain reports, on the contrary, suggest a negative relationship between corporate governance and market measurements such as (Akbar et al.,2016; Hassan & Halbouni, 2013; Mohamed et al.,2016). Nonetheless, the effect of corporate governance on market-based indicators has not been investigated in India and the GCC region. Thereupon, this study would examine the relationship between corporate governance and market-based measurements performance. Moreover, regarding extensive dissociation, the purpose of this study is to fill the literature review gap through the relationship between corporate governance and market-based measurements particularly in India and GCC region.

Review of Literature

Corporate governance is a system that not only enhances the relationship between various parties (firm's shareholders, managers, and investors), but it also ensures that proper provision of resources among competing users exists. Additionally, it offers structures through which firm objectives are formulated and ways to achieve the goals as well as examining if performances are carried out. Standard and Poor's issued a report in 2003 defines Corporate governance index as a composite evaluation of various corporate governance practices followed by a firms, then order to assess and embed CG in a company's structural framework and compare the respective companies' governance score with the accepted standards set by the regulatory bodies this Index is prepared. In the prior literature, many corporate governance indices were developed, mostly of these indexes are based on developed countries. However, few studies were conducted in the developing and emerging markets. The current paper tries to bring new facts and understanding on the emerging markets in Asia, more specifically, India and GCC countries. There is some research work that has been conducted in this regard e.g. (Aggarwal et al., 2010; Al-Malkawi et al.,2014; Arora & Sharma, 2016 ; Bishnoi & Sh, 2015; Black et al., 2017; Daines et al.,2010; Garay & González, 2008; Gompers et al., 2003; Hassan, 2012; Leal & Carvalhal, 2005; Wahab et al., 2007), are among others.

The distribution and concentration of ownership and their coordination are most noticeable when the cluster of firms run under the shared property. Thus, different scoring on CG [CGI] were suggested by many academics and institutions around the globe. Setting the index is helpful because it reduced the number of elements of the firm's governance system so that it becomes one element. However, there is no such system for measuring the compliance on CG, previous research has been developed several CGI in India such as Dharmapala & Khanna (2013) used a series of reforms in India to examine the effect of corporate governance on corporate values (Clause 49). They prepared Corporate Governance Index based on clause 49 for 4335 listed firms from 1998 to 2006. They found that the governance reforms combined with clause 49 had a statistically significant positive effect (at least 6% of the firm value). Likewise, Varshney et al.,(2012) have studied relationship between the governance mechanism and the firm performance of Indian companies. They have developed a corporate governance index relied on Clause 49 of the Securities and Exchange Board of India and based on 105 Indian companies for the periods of two years 2002–2003 and 2008–2009. It has been found that there is a positive relationship between corporate governance which is based on the corporate governance index and firm performance. Furthermore, Balasubramanian et al.,(2010) studied the relationship between corporate governance at the company level and market value: an Indian case study. They noticed cross-sectional evidence of a positive correlation of company market value with an overall index of governance, as well as a sub-index representing investor rights.

There are some studies which investigated the impact of corporate governance index on market-based measurements in Gulf countries. The following studies were conducted by Abdallah & Ismail,(2017) to explore the relationship between corporate governance and performance by different levels of concentrated ownership and also by different types of ownership. Sub-index has taken to assess corporate governance score trading history, corporate communications, and disclosure for 581 GCC companies from 2008 to 2012. The result shows the significant positive relationship between governance quality and firm performance and it is maintained stronger at low levels of concentrated ownership. The similar study has been made by Pillai & Al-malkawi.,(2017) explored the impact on corporate performance (FP) in the GCC countries of internal corporate governance mechanisms (CG). Datasets were selected for 349 financial and non-financial companies and the study lasts from 2005 to 2012. They concluded that government shareholdings, audit type, size of the board, in most countries, corporate social responsibility and leverage have a significant impact on the FP of the GCC. Also, Al-Malkawi et al., (2014) examined the practices of corporate governance in emerging markets giving a special focus on the listed firms in the (GCC). Findings revealed that companies in Gulf States adhere 69% of the attributes addressed in the CGI. Moreover, Al-Matari et al.,(2012) examined the relationship between the internal corporate governance mechanism measured by the board of directors and the audit committee characteristics and evaluate the performance of 135 Saudi companies in 2010 and reveald that audit committee size have a significant relationship with firm performance while non-executive directors, CEO duality, board size, audit committee independence, audit committee meeting insignificantly related to firm performance.

Market-wide studies of corporate governance and its impact on market-based measurements do not seem to exist for India and Gulfs countries emerging market. Therefore, the objective of this study is to fill the gap in the literature review by studying the relationship between corporate governance and market-based measurements particularly in India and GCC non-financial listed firms.

Research Methodology

Sample Selection and data collection

This study focuses on examining the associations of corporate governance mechanisms (Board accountability index, Transparency and disclosure index, Audit committee (AC) index), and the marketing-based measurements in India and GCC non-financial listed firms. The independent variables are the corporate governance while the marketing-based measurements is the dependent variable as measured by Market value added and Tobin Q. Besides, the control variables in this study consist of government effectiveness, and firm leverage. Fifty non-financial listed companies from each emerging market have selected by market capitalization covering all sectors of the economy. In the case of GCC, a multistage sampling technique adopted in selecting the countries. In The first stage, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE) chosen purposively from GCC because they started to follow the rule and regulation of corporate governance before or in 2009. The second stage involves the selection of fifty non-financial listed companies from each state by market capitalization. The sample data have been collected for eight years from 2009 up to 2016. These years are selected due to the starting practice of the corporate governance policy in GCC.

Corporate governance data in India are hand-collected from the companies' official websites, annual reports, and Money control website. Data on marketing-based measurements and leverage have been extracted from the Prowess Q database. The data of Governance effectiveness has been obtained from the World Bank website. Any missing financial data from the process Q database are collected from the respective annual reports. Contrary, the data about the corporate governance mechanisms index in GCC are collected from the companies' official websites, annual reports, Gulf Base official website, and Argaam official website. Data on marketing-based measurements and

Table 1:Recent studies related to the two issues corporate governance and market-based measurement

Studies	Dependent variables	Independent variables	Control variables	Time span	Sample size	Methods	Country	Results
Enache & Hussaine (2019)	Tobin's Q	Disclosure index ,Technical disclosure index , Market disclosure index , Board structure measures	Leverage, Firm age	2005-2013	647 companies	Multiple linear regression	US	Results show that informative has similar value-increasing effect as corporate governance and that the marginal effect of trustworthy disclosures is decreasing in governance.
Saidat et al., (2019)	Tobin's Q	Ownership structure Board structure	Firm size, leverage	2009-2015	228 listed firms	Multiple regression	Jordan	Findings reveal that there is a strong relationship between corporate performance and independent directors in nonfamily firms. Ownership concentration has an insignificant correlation with corporate performance.

Husam-Aldin et al.,(2018)	Tobin's Q	Insider shareholding, Institutional shareholdings, Government shareholdings , Board size ,CSR	Leverage, Firm size, Firm age	2005-2015	22 companies	Feasible generalized least squares	GCC	Results show that five internal CG mechanisms have statistically significant relationship with FP, measured by Q-ratio.
Yameen et al.,(2019)	Tobin's Q	Board structure Audit Committee Size ,Audit Committee Composition, Audit Committee Diligence, Foreign Ownership	Net Sales, Firm Size, Firm Age	2013/2014 to 2015/2016	39 hotels	Ordinary least-squares (OLS)	India	Results also reveal that board directors' size, audit committee's size, and foreign ownership positively impact the Indian hotels' performance measured by Tobin's Q.
Liu et al., (2018)	Tobin's Q	Supervisory board over board of directors, and monitoring strength of board of directors over CEO	Firm Size, Leverage	2001-2016	1295 firms	Multiple Liner Regression	China	The authors find that good corporate governance practices moderate the negative effect on firm performance.
Ciftci et al.,(2019)	Tobin's Q	Ownership concentration, Foreign ownership, Women boardmembership ,Executive board membership,	Firm size, and leverage	2010-2013	234 listed firms	Generalized Least Squares (GLS)	Turkey	Findings reveal that there is a positive eûects between corporate governance and firm's performance.

leverage are gathered from Data Stream financial database by referring to the Data Stream Manual. The data of Governance effectiveness is extracted from the World Bank website. Any missing financial data from the Data Stream are collected from the respective annual reports.

Variables description

Table 2: Variables description

Variable type	Variable name	Symbol	Proxy measure	Used in the existing studies
Dependent variable	Market Value Added	MVA	It can be calculated by It is the difference between the Market Value and book value of Equity.	(Dzingai & Fakoya, 2017; Gupta & Sharma, 2014; Najjar, 2012)
	Tobin's Q	TQ	Tobin's Q can calculate by the ratio of the market capitalization plus total debt divided by total asset of the company.	(Brown & Caylor, 2006; Moradi et al.,2012; Singh et al., 2018)
Independent Variables	Board Accountability	BAI	Board accountability Index(16 item)	(Bonn et al.,2004; Hassan et al.,2017; Wang, 2013)
	Audit committee	ACI	Audit committee Index (10 Items)	(Al-Matari et al., 2014; Al-Matari et al., 2014; Bansal & Sharma, 2016)
	Transparency & disclosure	TDI	Transparency and disclosure Index(14)	(Kamal Hassan, 2012; Rashidah & Faisal, 2015; Samaha et al.,, 2012)
Control Variables	Leverage	LEV	It measured by dividing the total assets upon total liabilities.	(Abdallah & Ismail, 2017; Akbar et al., 2016)
	Governance Effectiveness	GE	Worldwide Governance Index	(Briano-Turrent & Rodríguez-Ariza, 2016; Kaufmann et al.,2011)

Dependent variables

Market Value Added: It is the difference between the market value and book value of equity.

Tobin's Q: Tobin-Q represents the market's expectation of the performance of firms. It can be calculated by divided the market capitalization plus total debt on a total asset of the company.

Independent variables Corporate Governance Scores/Ratings

This study relies on previous literature and makes an effort to develop a good Corporate Governance Index (CGI) that is similar to the Principles of OECD. To measure CGI more accurately, we use the recommended practices of the GCC Code on Corporate Governance and Indian clause 49 of corporate governance practice, using scores between 0 and 1 for each item. The Corporate Governance Index (CGI) set to GCC, India context and the Asian continent in general. Researchers in future can use this index to evaluate corporate governance and provide information for decision making. Moreover, this index would be helpful for managers and stakeholders as it will enable them to assess corporate governance practice in India and GCC regain.

Board Accountability Index

Table (3) Board accountability index

Board Accountability	References
1. The board Size of the directors is at least five but not more than sixteen members.	(Aggarwal et al., 2010; Ammann et al., 2011; OECD, 1999; Srairi, 2015)
2. Disclosure the qualifications of the board members.	(Aggarwal et al., 2010; Hassan, 2012; OECD, 2004; Srairi, 2015)
3. Attendance of all members at least 75% in board meetings.	(Ammann et al., 2011; Black et al., 2006; Brown & Caylor, 2006; Hassan, 2012; Srairi, 2015)
4. The number of the board meetings held in the year and the attended physically through via electronic media is disclosed for every board member.	(Al-Malkawi et al., 2014; Hassan, 2012; OECD, 2015)
5. The firms have implemented a procedure for a regular assessment of the board.	(Hassan, 2012; OECD, 1999)
6. The firm reveals the offces held by an independent director in other companies.	(Hassan, 2012; OECD, 2015)
7. Separation of chairman and CEO.	(Al-Malkawi et al.,2014; Ammann et al.,2011; Brown & Caylor, 2006; Hassan, 2012; OECD, 1999; Srairi, 2015)
8. The firm has an annual board meeting only for non-executive directors.	(Al-Malkawi et al., 2014; Ammann et al., 2011; Balasubramanian et al., 2010)

Contd...

Contd...

9.	Board performance is periodically evaluated.	(R. Aggarwal et al., 2010; Al-Malkawi et al., 2014; Ammann et al., 2011; Black et al., 2006; Brown & Caylor, 2009; Nwakama et al., 2011; OECD, 2015)
10.	Chairman of board independent director.	(Cheung et al., 2007; Henry, 2010; Khan & Banerji, 2016)
11.	The governance/nomination committee is composed of independent board members.	(Al-Malkawi et al., 2014; Ammann et al., 2011; OECD, 1999)
12.	The time gap between the two meetings does not exceed four months.	(Brown & Caylor, 2006; Khan & Banerji, 2016)
13.	Governance/nomination committee has a written charter or terms of reference.	(Al-Malkawi et al., 2014; Ammann et al., 2011)
14.	More than 50 percent of the board is controlled by independent outside directors.	(Abdallah & Ismail, 2017; R. Al-Malkawi et al., 2014; Ammann et al., 2011; Black et al., 2006; Brown & Caylor, 2006; Rashidah & Faisal, 2015)
15	Remuneration of the CEO and board members is disclosed.	(Turrent & Ariza, 2016; Khan & Banerji, 2016; OECD, 1999)
16.	Support committees for the board.	(Abdallah & Ismail, 2017;Turrent & Ariza, 2016; OECD, 1999; Rashidah & Faisal, 2015)

Transparency and disclosure Index

Table 4: Transparency and disclosure index

Transparency and disclosure		References
1.	Company objective.	(Cheung et al., 2007; OECD, 1999; Srairi, 2015)
2.	The firm reports the accounting principles followed.	(Turrent & Ariza, 2016; OECD, 1999; Srairi, 2015)
3.	Publication of annual corporate governance report.	(Abdallah & Ismail, 2017; Ararat et al., 2017; Turrent & Ariza, 2016; Hassan, 2012; OECD, 1999; Rashidah & Faisal, 2015; Srairi, 2015)
4.	Disclose of related party transaction.	(Abdallah & Ismail, 2017; Bishnoi & Sh, 2015; Hassan, 2012; Khan & Banerji, 2016; OECD, 1999; Srairi, 2015)

Contd...

Contd...

5. Consolidated financial statements can be found on the company website.	(Abdallah & Ismail, 2017; Garay & González, 2008;Hassan, 2012; Nwakama et al., 2011; OECD, 1999; Srairi, 2015; Zheka, 2005)
6. Stock price information	(Hassan, 2012; Srairi, 2015)
7. Risk management information is available in the annual report.	(Al-Malkawi et al., 2014; Rashidah & Faisal, 2015; Samaha et al., 2012; Srairi, 2015)
8. The companies have disclosed the company's penalties and sanctions .	(Turrent & Hughes, 2017; Turrent & Ariza, 2016; Hassan, 2012; OECD, 1999)
9. Company discloses a code for ethic or conduct for the Board.	(Al-Malkawi et al., 2014; Balasubramanian et al., 2010; Garay & González, 2008; Henry, 2010; Nwakama et al., 2011; Samaha et al., 2012)
10. Information about the notice of the meeting Information about the notice of the meeting is available in the annual report of the company.	(Turrent & Ariza, 2016; OECD, 1999)
11. The firm publishes the annual report in the English language.	(Abdallah & Ismail, 2017; Ararat et al., 2017;Black et al., 2006; Turrent & Ariza, 2016)
12. The company has a website.	(Al-Malkawi et al., 2014; Cheung et al., 2007; Nwakama et al., 2011; Zheka, 2005)
13. Annual reports for the company are available.	(Al-Malkawi et al., 2014; Ararat et al., 2017; Balasubramanian et al., 2010; Cheung et al., 2007)
14. Firm annual report discovers the details of corporate social responsibility.	(Al-Malkawi et al., 2014; Hassan, 2012; Srairi, 2015)

Audit committee Index

Table 5: Audit committee index

*Audit committee (AC)	References
1. The firm has formed an audit committee.	(Ammann et al., 2011; B. S. Blacket al., 2010; Black et al., 2006; Fallatah, 2012; Nwakama et al., 2011; Rashidah & Faisal, 2015; Samaha et al., 2012; Srairi, 2015)

Contd...

Contd...

2. Audit committee consists solely of non-executive directors.	(Aggarwal et al., 2010; Al-Malkawi et al., 2014; Srairi, 2015)
3. At least two-thirds of members in audit committee are independent directors.	(Black et al., 2006; Khan & Banerji, 2016; Srairi, 2015)
4. The chairman of an audit committee is an independent director.	(Khan & Banerji, 2016; Srairi, 2015)
5. One member at least of the audit committee has accounting expertise or experience in the field of finance.	(Black et al., 2006; OECD, 2004; Srairi, 2015)
6. Size of the audit committee is at least three members.	(Bishnoi & Sh, 2015; Khan & Banerji, 2016; Srairi, 2015)
7. Chairman of audit committee present at AGM.	(Khan & Banerji, 2016)
8. AC has a written charter or terms of reference.	(Al-Malkawi et al., 2014; Ammann et al., 2011)
9. AC meets two or more times per year.	(Black et al, 2006)
10. All members of AC attended at least 75% of board meetings.	(Brown & Caylor, 2006)

Control variables

Leverage. Leverage indicates the debt position of a firm. It is measured by dividing the total assets upon total liabilities.

Governance Effectiveness: it is a measurement used by the worldwide bank to evaluate the quality of policy formulation and implementation, the quality of public services, the credibility of the government's commitment to such policies, and, the quality of the civil service and the degree of its independence from political pressures.

Model Specifications and Econometric Tools

The current study uses a panel data of 50 companies for a period of 8 years from 2009 to 2016 for each company in India and GCC countries. There are two advantages of adopting the panel data analysis approach which has been confirmed in many studies. Firstly, its efficiency of econometric estimates over pure time-series or pure cross-sectional data analysis techniques (Hsiao, 2003). Secondly, it controls for individual heterogeneity and multicollinearity (Kyereboah-Coleman, 2007). The present study applies the Generalized Method of Moment to find out the impact of corporate governance practices on the market-based measurements of Indian and GCC listed firms. The reason behind applying the GMM estimator is that it accounts for possible correlations between any of the independent variables (Athanasoglou et al., 2008). Moreover, Saona (2016) argues that problems and issues that are related to individual heterogeneity are one of the justifications for using GMM. The difference of GMM estimators can be subjected to serious finite sample biases if the instruments used have near unit root properties (Chowdhury and Rasid, 2017). In some situations in which the panel data set consist of small T and large N, independent variables that are not strictly exogenous, fixed individual effects, heteroscedasticity, and autocorrelation both difference and system GMM estimators are suitable to be used (Roodman, 2006). To achieve the study objectives, the following regression models are developed:

$$MVA_{it} = \alpha + \beta 1\ BAI_{it} + \beta 2\ ACI_{it} + \beta 3\ TDI_{it} + \beta 4\ LEV + \beta 5\ GE + \varepsilon_{it} \quad (1)$$

$$TQ_{it} = \alpha + \beta 1\ BAI_{it} + \beta 2\ ACI_{it} + \beta 3\ TDI_{it} + \beta 4\ LEV + \beta 5GE + \varepsilon_{it} \quad (2)$$

Where,

α is the intercept, i and t correspond to firm and year, MVA refers to market value added, TQ is Tobin Q, BA is board accountability score, AC audit committee composition score, TD refers to transparency and disclosure score, LEV is the short form of leverage, GE stands for the Government effectiveness and ε is the error term of the model.

Data Analysis and Discussion

Descriptive statistics

Panel A (GCC Listed Firms)

Table (6) demonstrates the descriptive statistics for panels A (GCC listed firms). The results show that mean values of market value added and Tobin Q are 344135.72 and 1.73 respectively. The median for the marketing-based measurements (MVA and TQ) is 7.900435 and for TQ is 1.47. Regarding corporate governance indicators findings reveal that the mean values of BA, AC and TD are 0.71, 0.75 and 0.72 respectively while the minimum score of each indicator is 0.31, 0.00 and 0.43. The standard division of each corporate governance indicator is 0.14, 0.15 and 0.13 respectively. Two control variables were used in this study LEV and GE, their mean values are 52.24 and 67.97 respectively.

Panel B (Indian Listed Firms)

The findings reveal that mean values of market value added and Tobin Q are 462885.31 and 3.14 respectively which are far different from that one's of GCC. The median for the marketing-based measurements (MVA and TQ) are 148482.46 and 2.21. Regarding corporate governance indicators results reveal that the mean values of BA, AC and TD are 0.75,0.87 and 0.94 respectively while the minimum score of each indicator is 0.44, 0.55 and 0 .64. These results indicate that corporate governance are better practiced in India than GCC countries listed firms, the standard division of each corporate governance indicator is 0.11, 0.09 and 0.08 respectively. The mean values of LEV and GE are 51.24 and 67.41 respectively.

Table 6: Descriptive statistics for GCC Firms

	Panel A (GCC Firms)						
	MVA	TQ	BA	AC	TD	LEV	GE
Mean	344135.72	1.73	0.71	0.75	0.72	52.24	67.41
Median	7.900435	1.47	0.75	0.73	0.71	45.22	63.46
Maximum	12321054	6.97	0.94	1.64	1.00	2869.03	91.35
Minimum	-485.22	0.52	0.31	0.00	0.43	2.51	45.50
Std. Dev.	1380896.477	0.99	0.14	0.15	0.13	142.76	12.26

Table 7: Descriptive statistics for Indian Firms

	Panel B(Indian Firms)						
	MVA	TQ	BA	AC	TD	LEV	GE
Mean	462885.31	3.14	0.75	0.87	0.94	51.24	67.41
Median	148482.46	2.21	0.75	0.91	0.96	44.95	63.46
Maximum	7221464	15	0.94	1.00	1.00	87.61	57.21
Minimum	1723	0.16	0.44	0.55	0.64	45	45.19
Std. Dev.	714635.586	2.669	0.107	0.093	0.080	4.54	25.34

Correlation Matrix and VIF

Correlation matrix is one of the econometric tools that examine the trend of association between the variables. It tells us how significant the association between the variables of the study is. It also provides an indicator of multicollinearity absence and presence. If an independent variable in a model has variance inflation factor value more than or equal to 10, it indicates the present of multicollinearity in the model (Field, 2009).

Results in Table (8) show that BA has negative and significant association with MVA of GCC listed firms whereas it has a positive and insignificant association with MVA of Indian listed firms. However, BA has an insignificant positive relationship with TQ of GCC listed firms and significant positive relationship with TQ of Indian listed firms. Regarding AC results reveal that it has a negative correlation with both marketing-based measurements MVA and TQ of both GCC and Indian listed firms.TD negatively correlates with MVA of GCC listed firms and positively with Indian listed firms. Furthermore, it correlates positively with TQ of both GCC and Indian listed firms. In terms of leverage findings demonstrate that there is a negative and insignificant association between leverage and market value added of both GCC and Indian listed companies. GE of firms has a negative and significant relationship with both marketing-based measurements of GCC listed firms where as it has insignificant relationship with market value added and Tobin Q of Indian listed firms. Results of multicollinearity tests show that there is no high collinearity among the variables, which indicate the absence of multicollinearity. According to statistics, we certainly have multi-linearity, which is not the case in this analysis, when VIF for any parameter are more than 10.

Table 8: Pearson correlation

		MVA	TQ	GE	LEV	BA	TD	AC
Panel A(GCC firms)								
MVA	Pearson Correlation	1						
TQ	Pearson Correlation	.150**	1					
GE	Pearson Correlation	-.101*	-.257**	1				
LEV	Pearson Correlation	-.037	.036	-.029	1			
BA	Pearson Correlation	-.232**	.064	.060	.020	1		
TD	Pearson Correlation	-.186**	.044	.041	-.013	.542**	1	
AC	Pearson Correlation	-.168**	.043	-.099*	.058	.577**	.337**	1
	Variance inflation factor		1.5	1.9	1.03	1.04	1.4	
Panel B(Indian firms)								
MVA	Pearson Correlation	1						
TQ	Pearson Correlation	.166**	1					
GE	Pearson Correlation	-.066	-.071	1				
LEV	Pearson Correlation	-.037	.054	-.011	1			
BA	Pearson Correlation	.054	.200**	.021	-.091	1		
TD	Pearson Correlation	.111*	.027	-.049	-.267**	.241**	1	
AC	Pearson Correlation	-.057	.060	.124*	.013	.187**	.045	1
	Variance inflation factor		1.05	1.09	1.01	1.07	1.1	

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

*. Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis

The regression model is a useful tool for determining whether or not the independent variable has a significant impact on the dependent variable and for indicating how much change the addictive variable is attributable to the independent variable. In the present study generalized method of moment is used to investigate the impact of corporate governance mechanism on the market-based measurements of GCC and Indian listed Firms. Before running the generalized method of moment all assumptions were checked out and were met. Scatterplot technique was used for examining linearity and homogeneity while VIF was used for detecting multicollinearity as shown in Table (9), moreover normality of residuals was visualized, the histogram of the residuals show that residuals seems to have a normal distribution. Furthermore, skewness values are also examined to confirm the normal distribution of error terms. GMM estimator accounts for possible correlations between any of the independent variables and problems that are related to individual heterogeneity which are one of the justifications of using GMM. There are three additional assumptions for using GMM which were examined and met in this study Table (9).

Panel A (GCC Firms)

Table (9) shows that BA has a significant impact on the marketing-based measurements of gulf listed companies measured by MVA and TQ (P.V<0.05), this result is consistent with(Abdallah & Ismail, 2017; Conheady et al.,2015; Mohd et al., 2014) who argue that BA has a significant impact on marketing-based measurements, the result of the study regarding BA contradicts with (Al-Matari et al., 2012; Bonn et al., 2004) who believes that BA has insignificant impact on marketing-based measurements. The sign of coefficient indicates that BA has a positive and significant impact on MVA and TQ of gulf companies. Regarding AC it is clear from Table (8) that AC has significant negative impact on MVA, the result agrees with(Al-Matari et al., 2014; Hassan et al.,2013). It clears from the Model (2) that there is insignificant negative impact of AC on TQ (P.V>0.05), this result is supported by (Al-Matari et al., 2014; Ararat et al., 2017) who advocate that AC negatively affect firms marketing-based measurements. In terms of TD Table (9) demonstrates that TD significantly and positively affects MVA, this result is in accordance with (Kolobe, 2007; Sharif et al.,2015; Zaman et al., 2015) who argue that TD positively impacts firms' measured by MVA. On the contrary, TQ is affected the TD significantly and negatively, this finding is in the line with (Hassan et al.,2013) who found out that TD has a negative impact on the marketing-based measurements. The controlling variables LEV and GE have insignificant

Table 9: GMM estimation for GCC Firms

Panel A(GCC Firms)									
Model (1) MVA					Model(2) TQ				
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
MVA(-1)	0.235574	0.001901	123.949	0.000	TQ(-1)	0.767663	0.141107	5.440271	0.000
BA	1279894	355807.6	3.59715	0.004	BA	2.244106	0.90071	2.491487	0.0133
AC	-2466014	213246.1	-11.5641	0.000	AC	-0.033113	0.832903	-0.039756	0.9683
TD	6617968	417135	15.86529	0.000	TD	-2.906369	1.28247	-2.266228	0.0242
LEV	-4150.493	3165.878	-1.31100	0.1909	LEV	-3.46005	0.000107	-0.32388	0.7463
GE	-12779.2	2397.55	-5.3301	0.000	GE	0.010692	0.008811	1.213553	0.2259
Prob (J-statistic)	0.390443				Prob. (J-statistic)	0.137082			
AR(1)	0.499				AR(1)	0.0514			
AR(2)	0.984				AR(2)	0.641			

Table 10: GMM estimation for Indian Firms

Panel B (Indian Firms)

Model (1) MVA					Model(2) TQ				
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
MVA(-1)	0.058584	0.007675	7.633015	0.000	TQ(-1)	-0.500838	0.205548	-2.43659	0.0154
BA	3110188	481190.6	6.463527	0.000	BA	18.95601	10.3498	1.831535	0.068
AC	3080752	290437.2	10.60729	0.000	AC	28.51853	5.54999	5.138484	0.000
TD	2466938	372129.5	6.629247	0.000	TD	-21.71229	9.871829	-2.19941	0.0286
LEV	37664.73	4798.928	7.848573	0.000	LEV	-0.063599	0.067359	-0.94418	0.3459
GE	12015.58	2454.175	4.895975	0.000	GE	0.031831	0.04137	0.76941	0.4423
Prob (J-statistic)	0.436493				Prob (J-statistic)	0.906531			
AR(1)	0.1721				AR(1)	0.0013			
AR(2)	0.2595				AR(2)	0.4238			

impact on MVA and TQ as P.V>0.0, except for GE on TQ, it shows a significant impact.

Panel B (Indian Listed Firms)

Models (1) and (2) in panel B are investigating the impact of corporate governance mechanism on the marketing-based measurements of Indian listed companies. Findings in Table (10) illustrates that BA has a significant and positive impact on the marketing-based measurements of Indian listed companies measured by MVA and TQ (P.V<0.05), this result is in the line with (Aggarwal, 2013; Arora & Sharma, 2016)who believe that BA positively impacts Firms' marketing-based measurements, the result contradicts with (Conheady et al., 2015; Varshney et al., 2013) who argue that BA negatively impacts firm's marketing-based measurements. Model (1) shows that AC has a significant and positive impact on marketing-based measurements measured by MVA on the contrary it has a significant and positive impact on TQ (P.V<0.05), this result is supported by(Balasubramanian et al., 2010; Neifar & Jarboui, 2017). The findings of this study also disagree with (Al-Matari et al., 2012; Bansal & Sharma, 2016). Regarding TD model (1) demonstrates that TD has a positive and significant impact on MVA of Indian listed companies (P.V>0.05), this findings go in the line with (Abdallah & Ismail, 2017; Rouf, 2012)who advocate that TD positively impacts firms' marketing-based measurements performance. model (4) shows that TD negatively and significantly affects TQ of the selected companies, this result is supported by (Balasubramanian et al., 2010) who found that TD has a negative impact on marketing-based measurements. The controlling variables LEV and GE have significant impact on MVA and insignificant impact on TQ as P.V>0.05.

Conclusion

This paper aims to find out the impact of corporate governance on the marketing-based measurements of the companies listed in GCC countries and India. Moreover, it aims to provide a brief view of the history of the corporate governance process of India and the GCC, the corporate law structure and policies of the Government of India and the GCC and other regulatory authorities. This piece of research relies on secondary data collected from different web sources and annual reports of the companies covering the period of 8 years from 2009 to 2016. To achieve the objectives of the study, 50 companies from India and GCC which were selected by their market capitalization based on the corporate governance practices that are being followed by them. Focusing was on some corporate governance mechanisms through different governance variables such as Board accountability index, audit committee index, and Transparency disclosure index. Generalized Method of Moment was used in the analysis.

Based on the sample data and its analysis, it is found in the study that corporate governance practice in India has been more stringent than GCC countries according to international codes of corporate governance. Findings reveal that corporate governance mechanism significantly impacts GCC countries marketing-based measurements measured by MVA and TQ except for AC that has insignificant impact on TQ. In contrast, corporate governance mechanism (BA, AC, and TD) significantly impact the marketing-based measurements of Indian listed companies measured by MVA and TQ. This present study contributes to knowledge by providing a concise view of how is corporate governance followed in the firms and particular in India and GCC listed firms. The research is thus beneficial for both the financial practitioners and researchers. Moreover, this study also contributes to the already limited pieces of literature on CG in India and the GCC region by examining the effect of CG on marketing-based measurements in their non-financial listed firms.

REFERENCES

Abdallah, A. A. N., & Ismail, A. K. (2017). Corporate governance practices, ownership structure, and corporate performance in the GCC countries. *Journal of International Financial Markets, Institutions and Money*, 46, 98-115. https://doi.org/10.1016/j.intfin.2016.08.004

Aggarwal, P. (2013). Impact of corporate governance on corporate financial performance. IOSR *Journal of Business and Management*, 13(3), 01–05. https://doi.org/10.9790/487X-1330105

Aggarwal, R., Erel, I., Stulz, R., & Williamson, R. (2010). Differences in governance practices between US and foreign firms: Measurement, causes, and consequences. *The Review of Financial Studies*, 22(8), 3131-3169. https://doi.org/10.1093/rfs/hhn107

Akbar, S., Poletti-Hughes, J., El-Faitouri, R., & Shah, S. Z. A. (2016). More on the relationship between corporate governance and firm performance in the UK: Evidence from the application of generalized method of moments estimation. *Research in International Business and Finance*, 38, 417–429. https://doi.org/10.1016/j.ribaf.2016.03.009

Al-Malkawi, H. A. N., Pillai, R., & Bhatti, M. I. (2014). Corporate governance practices in emerging markets: The case of GCC countries. *Economic Modelling*, 38, 133–141. https://doi.org/10.1016/j.econmod.2013.12.019

Al-Matari, E. M., Al-Swidi, A. K., & Bt Fadzil, F. H. (2014). The effect of board of directors characteristics, audit committee characteristics and executive committee characteristics on firm performance in Oman: An empirical study. *Asian Social Science*, 10(11), 149–171. https://doi.org/10.5539/ass.v10n11p149

Al-Matari, E. M., Al-Swidi, A. K., & Fadzil, F. H. B. (2014). Audit committee characteristics and executive committee characteristics and firm performance in Oman: Empirical study. *Asian Social Science*, 10(12), 98–113. https://doi.org/10.5539/ass.v10n12p98

Al-Matari, Y. A., Al-Swidi, A. K., & Bt Fadzil, F. H. (2012). Corporate governance and performance of Saudi Arabia listed Companies. *British Journal of Arts and Social Sciences*, 9(1), 1–30.

Al-Matari, Y. A., Kaid Al-Swidi, A., Hanim, F., Fadzil, B., & Al-Matari, E. M. (2012). Board of directors, audit committee characteristics and performance of Saudi Arabia Listed Companies. *International Review of Management and Marketing*, 2(4), 241–251. Retrieved from www.econjournals.com

Ammann, M., Oesch, D., & Schmid, M. M. (2011). Corporate governance and firm value: International evidence. *Journal of Empirical Finance* (Vol. 18). Elsevier B.V. https://doi.org/10.1016/j.jempfin.2010.10.003

Ararat, M., Black, B. S., & Yurtoglu, B. B. (2017). The effect of corporate governance on firm value and profitability: time-series evidence from Turkey. *Emerging Markets Review*, 30(November 2014), 113–132. https://doi.org/10.1016/j.ememar.2016.10.001

Arora, A., & Sharma, C. (2016). Corporate governance and firm performance in developing countries: Evidence from India. Corporate Governance: *The International Journal of Business in Society*, 16(2). https://doi.org/doi.org/10.1108/CG-01-2016-0018

Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. (2008). Bank-specific, industry-specific and macroeconomic determinants of bank profitabilit. *International Financial Markets Institutions and Money*, 18, 121–136. https://doi.org/10.1016/j.intfin.2006.07.001

Balasubramanian, N., Black, B. S., & Khanna, V. (2010). The relation between firm-level corporate governance and market value: A case study of India. *Emerging Markets Review*, 11(4), 319–340. https://doi.org/10.1016/j.ememar.2010.05.001

Bansal, N., & Sharma, A. K. (2016). Audit committee, corporate governance and firm performance: Empirical Evidence from India. *International Journal of Economics and Finance*, 8(3), 103. https://doi.org/10.5539/ijef.v8n3p103

Bayrakdaroglu, A., Ersoy, E., & Citak, L. (2012). Is there a relationship between corporate governance and value-based financial performance measures/ ? A Study of Turkey as an Emerging Market. *Asia-Pacific Journal of Financial Studies*, 224–239. https://doi.org/10.1111/j.2041-6156.2012.01071.x

Bhardwaj, M. N., Batani, C., & Rao, R. (2014). Corporate governance practices in india – a case study. *Asia Pacific Journal of Research* I Issue XIII, I(XIII), 2320–5504.

Bishnoi, T. R., & Sh, S. D. (2015). Corporate governance and performance of foreign firms in India. *Indian Journal of Corporate Governance*, 8(2), 137–152. https://doi.org/10.1177/0974686215602384

Black, B., de Carvalho, A. G., Khanna, V., Kim, W., & Yurtoglu, B. (2017). Corporate governance indices and construct validity. *Corporate Governance: An International Review* (Vol. 25). https://doi.org/10.1111/corg.12215

Black, B. S., Carvalho, A. de, & Gorga, É. (2010). Does One Size Fit All in Corporate Governance? Evidence from Brazil (and other BRIK Countries). Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1434116

Black, B. S., Jang, H., & Kim, W. (2006). Does corporate governance predict firms' market values? Evidence from Korea. *Journal of Law, Economics, and Organization*, 22(2), 366–413. https://doi.org/10.1093/jleo/ewj018

Bonn, I., Yoshikawa, T., & Phan, P. H. (2004). Effects of board structure on firm performance: A comparison between Japan and Australia. *Asian Business & Management*, 3(1), 105–125. https://doi.org/10.1057/palgrave.abm.9200068

Briano-Turrent, G. D. C., & Poletti-Hughes, J. (2017). Corporate governance compliance of family and non-family listed firms in emerging markets: Evidence from Latin America. *Journal of Family Business Strategy,* 8(4), 237–247. https://doi.org/10.1016/j.jfbs.2017.10.001

Briano-Turrent, G. del C., & Rodríguez-Ariza, L. (2016). Corporate governance ratings on listed companies: An institutional perspective in Latin America. *European Journal of Management and Business Economics*, 25(2), 63–75. https://doi.org/10.1016/j.redeen.2016.01.001

Brown, L. D., & Caylor, M. L. (2004). Corporate governance and firm performance. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.586423

Brown, L. D., & Caylor, M. L. (2006). Corporate governance and firm valuation. *Journal of Accounting and Public Policy*, 25(4), 409–434. https://doi.org/10.1016/j.jaccpubpol.2006.05.005

Brown, L. D., & Caylor, M. L. (2009). Corporate governance and firm operating performance. *Review of Quantitative Finance and Accounting*, 32(2), 129–144. https://doi.org/10.1007/s11156-007-0082-3

Chen, V. Z., Li, J., & Shapiro, D. M. (2011). Are OECD-prescribed "good corporate governance practices" really good in an emerging economy? *Asia Pacific Journal of Management*, 28(1), 115–138. https://doi.org/10.1007/s10490-010-9206-8

Cheung, Y.-L., Connelly, J. T., Limpaphayom, P., & Zhou, L. (2007). Do investors really value corporate governance? Evidence from the Hong Kong Market. *Journal of International Finance Management and Accounting*, 18(2), 86–122. Retrieved from http://www3.interscience.wiley.com/journal/117999812/abstract

Chhaochharia, V., & Laeven, L. (2009). Corporate governance norms and practices. *Journal of Financial Intermediation*, 18(3), 405–431. https://doi.org/10.1016/j.jfi.2008.10.001

Chong, A., Guillen, J., & Lopez-de-Silanes, F. (2009). Corporate governance reform and firm value in Mexico: An empirical assessment. *Journal of Economic Policy Reform*, 12(3), 163–188. https://doi.org/10.1080/17487870903105346

Chowdhury, M. A. F., & Rasid, M. E. S. M. (2017). Determinants of performance of islamic banks in gcc countries: dynamic gmm approach. *Advances in Islamic Finance, Marketing, and Management*, 49–80. https://doi.org/https://doi.org/10.1108/978-1-78635-899-820161005

Ciftci, I., Tatoglu, E., Demirbag, M., & Zaim, S. (2019). Corporate governance and fi rm performance in emerging markets/ : Evidence from Turkey. *International Business Review*, 28(September 2017), 90–103. https://doi.org/10.1016/j.ibusrev.2018.08.004

Conheady, B., McIlkenny, P., Opong, K. K., & Pignatel, I. (2015). Board effectiveness and firm performance of Canadian listed firms. *British Accounting Review*, 47(3), 290–303. https://doi.org/10.1016/j.bar.2014.02.002

Daines, R. M., Gow, I. D., & Larcker, D. F. (2010). Rating the ratings: How good are commercial governance ratings? *Journal of Financial Economics*, 98(3), 439–461. https://doi.org/10.1016/j.jfineco.2010.06.005

Darko, J., Aribi, Z. A., & Uzonwanne, G. C. (2016). Corporate governance: The impact of director and board structure, ownership structure and corporate control on the performance of listed companies on the Ghana stock exchange. *Corporate Governance: The International Journal of Business in Society*, 16(2), 259–277. https://doi.org/10.1108/CG-11-2014-0133

Dharmapala, D., & Khanna, V. (2013). Corporate governance, enforcement, and firm value: Evidence from India. *Journal of Law, Economics, and Organization*, 29(5), 1056–1084. https://doi.org/10.1093/jleo/ews011

Dzingai, I., & Fakoya, M. B. (2017). Effect of corporate governance structure on the financial performance of Johannesburg Stock Exchange (JSE)-listed mining firms. *Sustainability*, 9(6), 867. https://doi.org/10.3390/su9060867

Enache, L., & Hussainey, K. (2019). The substitutive relation between voluntary disclosure and corporate governance in their effects on firm performance. *Review of Quantitative Finance and Accounting*. https://doi.org/10.1007/s11156-019-00794-8

Fallatah, Y. (2012). Corporate governance and firm performance and value in Saudi Arabia. *African Journal of Business Management*, 6(36), 10025–10034. https://doi.org/10.5897/AJBM12.008

Farag, H., Mallin, C., & Ow-Yong, K. (2014). Governance, ownership structure, and performance of entrepreneurial IPOs in AIM companies. *Corporate Governance: An International Review*, 22(2), 100–115. https://doi.org/10.1111/corg.12049

Field, A. (2009). Discovering statistics using SPSS. Sage publications.

Garay, U., & González, M. (2008). Corporate governance and firm value: The case of Venezuela. *Corporate Governance: An International Review*, 16(3), 194–209. https://doi.org/10.1111/j.1467-8683.2008.00680.x

Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate governance and equity prices. *The Quarterly Journal of Economics*, 118(1), 107–155. https://doi.org/10.1162/00335530360535162

Gupta, P., & Sharma, A. M. (2014). A study of the impact of corporate governance practices on firm performance in Indian and South Korean Companies. *Procedia - Social and Behavioral Sciences*, 133, 4–11. https://doi.org/10.1016/j.sbspro.2014.04.163

Hassan, A. F. S., Karbhari, Y., Isa, A. A. M., & Razak, N. H. A. (2017). Board attributes and performance of government-linked companies (GlCS): Evidence From an Emerging Economy. *Corporate Ownership and Control*, 14(3). https://doi.org/10.22495/cocv14i3art8

Henry, D. (2010). Agency costs, ownership structure and corporate governance compliance: A private contracting perspective. *Pacific Basin Finance Journal*, 18(1), 24–46. https://doi.org/10.1016/j.pacfin.2009.05.004

Husam-Aldin, Al-Malkawi, N., & Pillai, R. (2018). Analyzing financial performance by integrating conventional governance mechanisms into the GCC Islamic banking framework. *Managerial Finance*, 44(5), 604–623.

Hsiao, C. (2003) Analysis of panel data, 2nd ed., Cambridge University Press, New York.

Kamal Hassan, M. (2012). A disclosure index to measure the extent of corporate governance reporting by UAE listed corporations. *Journal of Financial Reporting and Accounting* (Vol. 10). https://doi.org/10.1108/19852511211237426

Kamal Hassan, M., & Saadi Halbouni, S. (2013). Corporate governance, economic turbulence and financial performance of UAE listed firms. *Studies in Economics and Finance*, 30(2), 118–138. https://doi.org/10.1108/10867371311325435

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2011). The worldwide governance indicators: Methodology and analytical issues. *Hague Journal on the Rule of Law*, 3(2), 220–246. https://doi.org/10.1017/S1876404511200046

Khan, M. I., & Banerji, A. (2016). Corporate governance and foreign investment in India. *Indian Journal of Corporate Governance*, 9(1), 19–43. https://doi.org/10.1177/0974686216635786

Klapper, L. F., & Love, I. (2004). Corporate governance , investor protection , and performance in emerging markets. *Journal of Corporate Finance*, 10, 703–728. https://doi.org/10.1016/S0929-1199(03)00046-4

Kolobe, K. (2007). The impact of reported corporate governance disclosure on the financial performance of companies listed on the JSE. *Investment Analyst Journal*, (66), 43–56. https://doi.org/10.1080/10293523.2007.11082492

Kyereboah-Coleman, A. (2007) 'The impact of capital structure on the performance of microfinance institutions', *The Journal of Risk Finance*, Vol. 8, No. 1, pp.56–71

Leal, R. P. C., & Carvalhal da Silva, A. (2005). Corporate governance and value in Brazil and in Chile. *SSRN Electronic Journal*, 514(October). https://doi.org/10.2139/ssrn.726261

Li Liu, Wen Qu, Janto Haman, (2018) Product market competition, state-ownership, corporate governance and firm performance, *Asian Review of Accounting*, Vol. 26 Issue: 1, pp.62-83, https://doi.org/10.1108/ARA-05-2017-0080

Mallin, C. A. (2013). Corporate governance. Oxford University Press (4th ed., Vol. 1). Oxford. https://doi.org/10.1017/CBO9781107415324.004

Mcgee, R. W. (2009). Corporate governance in developing economies. In Corporate governance in developing economies. Springer. https://doi.org/10.1007/978-0-387-84833-4

Mohd Nor, M., Shafee, N. B., & Samsuddin, N. (2014). Board characteristics and Malaysian firm performance. *Global Journal of Business Research in Accounting, Auditing and Business Ethics*, 1(3), 139–147.

Moradi, N. S., Aldin, M. M., Heyrani, F., & Iranmahd, M. (2012). The effect of corporate governance, corporate financing decision and ownership structure on firm performance: A panel data approach from tehran stock exchange. *International Journal of Economics and Finance*, 4(6), 86–93. https://doi.org/10.5539/ijef.v4n6p86

Najjar, N. J. (2012). The impact of corporate governance on the insurance firm's performance in Bahrain. *International Journal of Learning and Development*, 2(2), 1–17. https://doi.org/10.5296/ijld.v2i2.1412

Neely, A. (1999). The performance measurement revolution/ : why now and what next/ ? *International Journal of Operations & Production Management*, 19(2), 205–228.

Neifar, S., & Jarboui, A. (2017). Corporate governance and operational risk voluntary disclosure: Evidence from Islamic banks. *Research in International Business and Finance*, (146), 0–1. https://doi.org/10.1016/j.ribaf.2017.09.006

Nwakama, P. C., Okereke, E. J., & Arewa, A. (2011). An empirical evaluation of corporate governance mechanism in banking sector: Impact and implication in Nigeria. *Asian Journal of Business and Management Sciences*, 1(2), 202–236.

OECD. (1999). OECD principles of corporate governance, OECD Publishing, Paris. Avilable at: http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?

OECD. (2004). OECD principles of corporate governance, OECD Publishing. Available at: http://www.oecd.org/corporate/ca/corporategovernanceprinciples/31557724.

OECD. (2015). OECD principles of corporate governance, OECD Publishing, Turkey. Available at: https://www.oecd.org/daf/ca/Corporate-Governance-Principles-ENG.

Okiro, K., Aduda, J., & Omoro, N. (2015). The effect of corporate governance and capital structure on performance of firms listed at the East African community securities exchange. *European Scientific Journal, ESJ*, 11(7).

Pande, S., & Kaushik, K. V. (2009). Study on the State of Corporate Governance in India: Evolution, issues and Challenges for the future. Retrieved From: http://iica.in/images/Evolution_of_Corporate_Governance_in_India.pdf

Pillai, R., & Al-malkawi, H. N. (2017). On the relationship between corporate governance and fi rm performance/ : Evidence from GCC countries. *Research in International Business and Finance*, 1–17. https://doi.org/10.1016/j.ribaf.2017.07.110

Qurashi, M. (2017). Comparison of corporate governance codes for GCC countries with the UN best practices. In British Academy of Management Conference Proceedings.

Rashidah, A. R., & Faisal, D. (2015). Humanomics Article information/ : Humanomics, 31(3), 354–371. https://doi.org/10.1108/H-04-2014-0037

Roodman, D. (2006). How to do xtabond2: An introduction to difference and system GMM in Stata. Center for Global Development Working Paper (103).

Rouf, A. (2012). The financial performance and corporate governance disclosure/ : A study in the annual reports of listed companies of Bangladesh. Pak. J. Commer. Soc. Sci, 6(1), 1–11.

Saidat, Z., Silva, M., & Seaman, C. (2019). The relationship between corporate governance and financial performance: Evidence from Jordanian family and nonfamily firms. *Journal of Family Business Management*, 9(1), 54–78.https://doi.org/10.1108/JFBM-11-2017-0036

Samaha, K., Dahawy, K., Hussainey, K., & Stapleton, P. (2012). The extent of corporate governance disclosure and its determinants in a developing market: The case of Egypt. *Advances in Accounting*, 28(1), 168–178. https://doi.org/10.1016/j.adiac.2011.12.001

Sami, H., Wang, J., & Zhou, H. (2011). Corporate governance and operating performance of Chinese listed firms. *Journal of International Accounting, Auditing and Taxation*, 20(2), 106–114. https://doi.org/10.1016/j.intaccaudtax.2011.06.005

Saona, P. (2016). Intra- and extra-bank determinants of Latin American Banks profitability. *International Review of Economics and Finance*, 45, 197–214. https://doi.org/10.1016/j.iref.2016.06.004

Sharif, S. P., & Ming Lai, M. (2015). The effects of corporate disclosure practices on firm performance, risk and dividend policy. *International Journal of Disclosure and Governance*, 12(4), 311–326. https://doi.org/10.1057/jdg.2015.2

Shehata, N. F. (2015). Development of corporate governance codes in the GCC: an overview. Corporate Governance: *The International Journal of Business in Society*, 15(3), 315–338. https://doi.org/10.1108/CG-11-2013-0124

Singh, S., Tabassum, N., Darwish, T. K., & Batsakis, G. (2018). Corporate governance and tobin's q as a measure of organizational performance. *British Journal of Management*, 29(1), 171–190. https://doi.org/10.1111/1467-8551.12237

Srairi, S. (2015). Corporate governance disclosure practices and performance of Islamic banks in GCC countries. *Journal of Islamic Finance*, 4(2), 1–17.

Srivastava, M. (2009). Good governance - concept, meaning and features: A detailed study. Social Science Research Network, 1–23. https://doi.org/10.2139/ssrn.1528449

Tsamenyi, M., Enninful Adu, E., & Onumah, J. (2011). Disclosure and corporate governance in developing countries. *Managerial Auditing Journal*, 22(3), 319–334. https://doi.org/https://doi.org/10.1108/02686900710733170

Varshney, P., Kaul, V. K., & Vasal, V. K. (2012). Corporate governance index and firm performance/ : Empirical evidence from India. *SSRN Electronic Journal*, (April), 1–35. https://doi.org/10.2139/ssrn.2103462

Wahab, E. A. A., How, J. C. Y., & Verhoeven, P. (2007). The Impact of the Malaysian code on corporate governance: Compliance, Institutional Investors and Stock Performance. *Journal of Contemporary Accounting & Economics*, 3(2), 106–129. https://doi.org/10.1016/S1815-5669(10)70025-4

Wang, Y.-C. (2013). The Influence of Board Structure on Firm Performance. The Journal of Global Business Management, 9(2), 7–14. Retrieved from:http://www.jgbm.org/page/2 Yang-Chao Wang-1.pdf

Yameen, M., Farhan, N. H., & Tabash, M. I. (2019). The impact of corporate governance practices on firm ' s performance/ : An empirical evidence from Indian tourism sector. *Journal of International Studies*, 12(1), 208–228. https://doi.org/10.14254/2071-8330.2019/12-1/14

Zaman, R., Arslan, M., & Siddiqui, M. A. (2015). Corporate Governance and Firm Performance/ : The Role of Transparency & Disclosure in Banking Sector of Pakistan, 2(2), 152–166.

Zheka, V. (2005). Does corporate governance predict firms performance/ ? The Case of Ukraine. *Managerial and Decision Economics*, 38(067), 451–460. https://doi.org/10.1002/mde.1258

Acknowledgement

The authors gratefully acknowledge the financial supporter; Indian Council of Social Science Research.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Impact of CSR on Financial Performance: An Empirical Analysis of Indian Banks

HIMANSHU AGARWALL, RABINDRA KUMAR SWAIN AND CHANDRIKA PRASAD DAS

Abstract: The CSR has been one of the best business practices since time immemorial in boosting overall performance of non-banking companies across the globe. Our study examines CSR impact on performance of commercial banks. This study is based on secondary data for a period of 10 years i.e., 2008 – 2018. Top six public sector and six private sector commercial banks based on net worth have been taken for the study. Correlation and panel data regression model have been applied to measure the relationship and impact. The study concluded that CSR practices in public sector banks have a significant relationship with ROA,but cash holding is not significantly associated with CSR practices. However, in private banks CSR has no impact on ROA or cash holding.

Keywords: CSR, Profit after Tax, Cash holding, Loan and deposit ratio, Net Worth

Introduction

CSR helps to enhance the shareholder wealth. There are two major theories known as stakeholder theory and shareholder theory. Stakeholder theory suggests a firm should not satisfy only the owner, but it should satisfy customers, public, suppliers, employees and others who have an interest in the corporation (Freeman & Evan, 1979). These stakeholders would support the firms' operations in maximizing the profits for shareholders owners of the firm (Deng, Kang, & Low, 2013). Shareholder theory suggests that a firm should think only about the owners of a firm.

In 2013, CSR was made mandatory for all corporations, but banks are doing CSR activities voluntarily. In the study, it is proposed to investigate the relationship of corporate social responsibility initiatives with Return on Asset and Cash Holding of Commercial banks.

Himanshu Agarwall is Assistant Professor, KIIT Deemed to be University, Bhubaneswar; Dr. Rabindra Kumar Swain is Assistant Professor, P.G. Dept. of Commerce, Utkal University and Chandrika Prasad Das is Assistant Professor, Khallikote University, Berhampur.

Literature Review

Maqbool and Zameer (2017) examined a study on "Corporate social responsibility and financial performance: An empirical analysis of Indian banks". They focused on study of relationship between CSR and firm's financial performance. Their study consists of secondary data and those are collected from 28 listed Indian commercial banks in BSE from 2007 -2016. They found CSR have a positive influence on performance of Indian banks. Ofori et. al. (2014) conducted a research on "Corporate social responsibility and financial performance: fact or fiction? A look at Ghanaian banks". They examined the CSR impact on fiscal performance. For that they have chosen 22 banks and collected both primary and secondary data for the study. They concluded that CSR is positively related to financial performance.

Palmer (2012) did a study on "Corporate Social Responsibility and Financial Performance". The purpose was to explore and check the relationship of corporate's social and financial performance. The required data were collected from S&P 500 firms from 2001-2005 and analyzed by using time-series regression. Sales and Gross margin are taken as CFP variable, CSR programs taken as CSP responsible. The thesis concluded that CSP and CFP have a significant positive relationship.

Hassan and Siddiqi (2016) did a study on "The impact of corporate social responsibility on profit and deposit: A study on commercial banks of Bangladesh." The aim of this paper was to study the relationship between CSR expenditures with profits and deposits. For that, they used panel data of 7 Bangladeshi commercial banks from 2011-2015. They found that CSR expenditure has a neutral relationship with profit and positive relationship with total deposit.

Taskin (2015)conducted a research on "Relationship between CSR and banks' financial performance: Evidence from Turkey." The study aimed to analyze the bi-directional relationship among CSR and financial performance. ROE, ROA and NIM are taken as financial performance variables and triple bottom line to measure CSR. For the study 11 Turkish banks have been taken. It is found that CSR has negatively associated with financial performance. Nollet et. al (2015) examined a research paper on "Corporate social responsibility and financial performance: A non-linear dis aggregated approach." They attempted to investigate the corporate social and financial performance relationship. They had taken ROA, ROC, Excess stock returns as performance indicators and CSR performance which is measured with Bloomberg's ESG disclosure score. The data collected from S&P stock market index from 2007-2011. The data analyzed with the help of panel regression model. They found CSP have a negative relationship with Return on capital and U-shaped relationship with Return on

Assets. Sandahl (2016) had conducted a research on "CSR & financial performance in banking sector in Scandinavia." The purpose of the thesis is to examine linkage between CSR with financial performance. The data had collected from five banks from 2011-2015. Regression model used to establish the linkage and found no connection of CSR and financial performance.

Objectives

The objectives of the study are as follows:

- To analyze the impact of CSR on ROA of top six public & six private commercial banks.
- To determine the influence of CSR on cash holding of top six public and six private commercial banks.

Hypotheses

- Ho_1The Independent variables do not impact the ROA.
- Ho_2 Cash holding is not affected by CSR variables
- Ho_3 ROA is not influenced by CSR variables
- Ho_4 Cash holding is not associated with CSR variables.

Research Methodology

Variables

Our study is focused on twelve Indian Commercial Banks operated in India which consists of six public sector & six private sector banks. The selection of banks has been based on their net worth. The period under study ranges from 2008 to 2018.

Data on CSR, ROA, Cash holding, Size, Leverage, Capital intensityare collected from secondary data sources. The annual reports of the sample banks, RBI circulars on CSR and Priority Sector Lending, various journals, working papers of World Bank and UN, books and websites are used for data collection.

Measurement of CSR

In present study 10 variables have been selected to appraise CSR initiatives of commercial banks.

Measurement of Performance Variables

The dependent variable in this study are ROA and Cash Holding.

- Return on Assets is calculated as ratio of Net-Income to the Total-Assets.
- Cash holding can be defined as cash and cash equivalents.

Table 1: Variables description

Sl.No.	Variables	Explanation
1	Rural Development (RD)	Contribution towards the development of rural areas
2	Priority Sector Lending (PSL)	The proportion of advances made to priority sector including the sub-sector within each category to Adjusted Net Bank Credit (ANBC) or total advances
3	Environment Protection (EP)	Number of activities done to protect and preserve the environment
4	Community Welfare (Including Women Welfare) (CW)	Number of activities done to develop the community with special reference to women empowerment
5	Farmers' Welfare (FW)	Number of activities done for the upliftment of the farmers and to promote the agricultural sector
6	Health Measures (HM)	Number of measures taken to develop and maintain health and sanitation in the society
7	Education (EDU)	Number of activities done to promote education in the society
8	Entrepreneurship Development (ED)	Numbers of activities undertaken so as to develop the domestic entrepreneurial skill
9	Financial Literacy and Credit Counseling (FLCC)	Contribution towards promoting financial literacy
10	New Initiatives related to CSR (NI)	New initiatives undertaken to bring in the real change in the society/environment

Control Variables

To improve the normality and linearity of the variables, the logarithm of size and cash holding have been used.

Panel Data Regression Model

This study is proposed to determine the relationship of CSR withROA & Cash Holdings. The ROA, and Cash Holdingare considered as dependent variables, whereas, CSR initiatives as independent variable. Thus, the following models are developed for the study.

$$Y_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 size_{it} + \beta_3 Leverage_{it} + \beta_4 Capital\ Intensity_{it} + \mu_{it} \quad (1)$$

$$Y_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 size_{it} + \beta_3 Leverage_{it} + \beta_4 Capital\ Intensity_{it} + \mu_{it} \quad (2)$$

Y relates to financial performance, whereas β0 is intercept, and β1 are the slope of the independent variables. Here, i represents bank, t represents time series and $ø_{it}$ is error term.

Data Analysis: Pubilc Sector Banks

Table No-1: Multicollinearity test

Variables	Vif (Rule of Thumb:10)
CSR	1.016
Size	1.042
Leverage	1.336
Capital Intensity	1.366

Source: Self compiled

From this report it is observed that VIF value of independent variables is less than the rule of thumb i.e. 10. Here there is no multicollinearity between independent variables and all the variables are eligible for running regression equation.

Table 2: Stationarity test (augmented Dickey Fuller)

Variables	probability(significance value)
Roa	0.99
Cash holding	0.81
Csr	0.67
Size	0.58
Leverage	0.07
Capital intensity	0.96

Source: Self Compiled

H_0^1: Variables has unit root or not stationarity.

H_1^1: Variables has no unit root or stationarity.

From the above table it is found that all the variables are stationarity as the significance value is more than rule of thumb i.e. 0.05. So, the null hypothesis does not have sufficient evidence to be acepted i.e. variables have no unit root.

Relationship Between ROA & CSR

In this study the nature of data is panel, so panel data analysis has been used. Fixed effects and Random effects model have been performed on the data and Hausman test is used to find out the better fitting model. From the test it is found thatmodel of Random effects is more suitable i.e. Random effects is appropriate.

The r^2 measures the change in dependent variable due to a change in independent variable. Here the dependent variable i.e., ROA is determined to the extent of 49% by the independent variable i.e., CSR and control variables i.e., Size, Leverage and Capital Intensity combinedly.

As per Annexure -1, P value is less than 0.05 i.e., 0.000 at 5% level of significance. So, our null hypothesis i.e., the independent variables do not have any impact on the ROA of Sample public sector banks, is rejected. Hence, it can be inferred that ROA of the banks is significantly influenced by the independent variables.

ROA = 10.60+0.20CSR – 3.74Size + 0.02Leverage - 118.37Capital Intensity

Here β_0 is the value of ROA, independent of all other factors or determinants. The value of β_0 is 10.60 w.r.t ROA i.e., irrespective of other factors, the company would have a positive ROA of 10.60. The slope measures the impact of Independent variables towards the respective dependent variable. Here, CSR shows a positive impact of 0.20% on ROA, which means 1unit change in CSR leads to 0.20 unit change in ROA. Size shows a negative impact of -3.74% on ROA i.e., a unit change in Size gives fall to 3.74 change in ROA. Also, Capital Intensity inversely affects the ROA of public sector banks by 118.37%. Leverage leads to positive contribution by 0.02% towards ROA.

Also, null hypothesis (H_0^1) was that the "The Independent variables do not impact the ROA of the sample public sector banks." As per Annexure 1, P value is 0.006, 0.004, 0.758 and 0.000 w.r.t CSR, Size, Leverage and Capital Intensity, respectively, which is less than 0.05 at 5% level of significance except Leverage. So, there is no evidence to support the null hypothesis and thus, CSR,SIZE and Capital Intensity have a significant impact on ROA of the sample public sector banks.

Relationship between Cash Holding & CSR

Here fixed effects model is appropriate as the non-acceptance of null hypothesis supports the preference of alternative hypothesis i.e. Fixed effects model is appropriate.

In Annexure -2 r^2 measures the proportionate change in dependent variable due to a change in independent variable. Here the Cash holding is determined to the extent of 75% by CSR and control variables i.e., Size, Leverage and Capital Intensity combinedly.

Cash Holding = -30.72+0.09 Csr +16.05 Size - 0.17 Leverage +18.81 capital Intensity

Here, value of β_0 is -30.71. It means irrespective of other factors; the company would have a negative cash holding of -30.71. The slope measures the impact of Independent variables towards the respective dependent variable. Here, CSR shows a positive impact of 0.09% on cash holding, which means 1-unit change in CSR leads to 0.09-unit change in cash holding. Size shows a positive impact of 16.05% on cash holding i.e., a unit change in Size gives rise to 16.05 change in Cash Holding. Also, Capital intensity positively contributes to the cash holding of public sector banks by 18.81%. Leverage leads to inverse contribution by 0.17% towards cash holding.

Null hypothesis (Ho_2) was that the "Cash holding is not affected by CSR variables of the sample public sector banks. As per Annexure 2, P value is 0.202, 0.000, 0.074 and 0.397 w.r.t CSR, Size, Leverage and Capital intensity, respectively, which is more than 0.05 at 5% level of significance except size. So, there is no evidence to reject the null hypothesis and thus, CSR, Leverage and Capital intensity have no significant impact on the cash holding of the sample public sector commercial banks.

Private Sector Bank

Table 3: Multicollinearity test

Variables	Vif (Rule of Thumb:10)
CSR	1.040
Size	1.145
Leverage	1.033
Capital Intensity	1.144

Source: Self compiled

From the above test it can be inferred that there is no multicollinearity between independent variables since the VIF value of independent variables is less than the rule of thumb i.e. 10, and all the variables are eligible for running regression equation.

Table 4: Stationarity test (Augmented Dickey Fuller)

Variables	Probability(significance Value)
ROA	0.99
Cash holding	0.94
CSR	0.07
Size	0.99
Leverage	0.09
Capital intensity	0.35

Source: Self Compiled

Ho_1: Variables has unit root or not stationarity.

Ho_2: Variables has no unit root or stationarity.

From the Table 4 it is found that all the variables have stationarity as the significance value is more than rule of thumb i.e. 0.05. So, there is no sufficient evidence to accept the null hypothesis i.e. it can be said that variables has no unit root or stationarity.

Relationship Between ROA & CSR

In the study as per the nature of data, panel data analysis has been used. Fixed effects and Random effects model have been performed on the data and Hausman test is used to find out the better fitting model. The result of Hausman test gives no reason to reject the null hypothesis i.e. Random effect is appropriate.

The r^2quantifies the change in dependent variable w.r.t the change in independent variable. Here the dependent variable i.e., ROA is determined to the extent of 9% by the independent variable i.e., CSR and control variables i.e., Size, Leverage and Capital Intensity combinedly.

As per Annexure -3, P value i.e., 0.220 which is more than 0.05 taking 5% level of significance. So, our null hypothesis i.e., ROA is not influenced by CSR variables of the sample private sector banks, has no sufficient evidence of being rejected.

$$ROA = -0.19+0.08CSR +0.10size - 0.01leverage + 1.72 \text{ capital Intensity}$$

Here β_0 is the value of ROA, independent of all other factors or determinants. The value of β_0 is -0.19 w.r.t ROA i.e., irrespective of other factors, the company would have a negative ROA of -0.19. The slope measures the impact of independent variables towards the respective dependent variable. Here, CSR shows a positive impact of 0.08% on ROA, which means 1-unit change in CSR leads to 0.08-unit change in ROA. Size shows a positive impact of 0.10% on ROA i.e., a unit change in Size gives rise to 0.10 change in ROA. Also, Capital Intensity positively affects the ROA of public sector banks by 1.72%. Leverage leads to negative contribution by -0.01% towards ROA.

Also, null hypothesis (H_0^3) was that the "ROA is not influenced by CSR variables of the sample private sector banks". As per Annexure 3, P value is 0.105, 0.046, 0.219 and 0.865 w.r.t CSR, Size, Leverage and Capital intensity, respectively, which is more than 0.05 at 5% level of significance except size. So, there is no evidence to reject the null hypothesis and thus, CSR, Leverage and Capital intensity have no significant impact on the ROA of the sample public sector banks.

Relationship Between Cash Holding & CSR

Here Fixed effects model is appropriate as there is no supportive evidence to support the null hypothesis and the alternative hypothesis is preferred i.e. Fixed effects model is appropriate.

In Annexure 4 r^2 measures the degree of change in dependent variable caused due to a percentage change of independent variable. Here the Cash holding is determined to the extent of 50% by CSR and control variables i.e., Size, Leverage and Capital Intensity combinedly.

Cash Holding = 1.95+0.01 CSR +0.70 Size - 0.00 Leverage +11.14 capital Intensity

Here, value of $\hat{a}_0$ is 1.95. It means irrespective of other factors; the company would have a negative Cash Holding of 1.95. The slope measures the impact of Independent variables towards the respective dependent variable. Here, CSR shows a positive impact of 0.01% on Cash Holding, which means 1-unit change in CSR leads to 0.01-unit change in Cash Holding. Size shows a positive impact of 0.70% on cash holding i.e., a unit change in Size gives rise to 0.70 change in Cash Holding. Also, Capital Intensity positively contributes to the cash holding of public sector banks by 11.41%. Leverage leads to zero contribution towards Cash Holding.

Null hypothesis (H_0^2) was that the "Cash holding is not associated with CSR variables of the sample private sector banks". As per Annexure 4, P value is 0.850, 0.000, 0.739 and 0.522 w.r.t CSR, Size, Leverage and Capital Intensity, respectively, which is more than 0.05 at 5% level of significance except size. So, there is no evidence to reject the null hypothesis and thus, CSR, leverage and Capital Intensity have no significant impact on the Cash Holding of the sample public sector banks.

Findings

- ROA is significantly influenced by CSR initiatives of sample public sector banks.
- Cash holding is not affected by CSR initiatives of sample public sector banks.
- ROA is not influenced by CSR initiatives of sample private sector banks.
- Cash holding is not associated with CSR initiatives of sample private sector banks.

Conclusion

This study tries to examine the relationship between CSR initiatives and Return on Asset, cash holdings. It includes Size, Leverage and Capital intensity as control variables. The study investigates twelve commercial banks out of which six public sector and six private sector commercial banks are selected. For the study, secondary data has been collected from financial reports of individual banks. The time 2008 to 2018 considered for the study. In this study researchers have selected ROA and cash holding as dependent variable and CSR as independent variable. Fixed effects model and model of Random effect have been used to find out the effect of CSR initiatives on performance of sample banks. The results show that CSR initiatives have a significant relationship with ROA in public sector banks and cash holding is not influenced by CSR in public sector banks. In private sector banks CSR has no influence towards ROA and cash holding.

REFERENCES

Maqbool, S. and M. N. Zameer (2O17). Corporate social responsibility and financial performance: An empirical analysis of Indian banks. *Future Business Journal* 4(1): 84-93.

Ofori, D. F., M. D. S-Darko, et al. (2014). Corporate social responsibility and financial performance: Fact or fiction? A look at Ghanaian banks. *Acta Commercii* 14(1): 1-11.

Hassan, M. and S. M. Siddiqi (2016). The impact of corporate social responsibility on profit and deposit: A study on commercial banks of Bangladesh.

Taskin, D. (2015). The relationship between CSR and Banks' Financial Performance: Evidence from Turkey. *Journal of YaÅŸar University*10(39): 21-30.

Nollet, J., G. Filis, et al. (2015). Corporate social responsibility and financial performance: A non-linear and disaggregated approach. *Economic Modelling* 52: 400-407.

Bolanle, Olanrewaju, & M. (2012). Corporate social responsibility and profitability of Nigeria banks - A causal relationship. *Research Journal of Finance and Accounting*, 3(1), 6–18.

Deng, X., Kang, J. koo, & Low, B. S. (2013). Corporate social responsibility and stakeholder value maximization: Evidence from mergers. *Journal of Financial Economics*, 110(1), 87–109.

Samina, Q. S. (2012). Practice of corporate social responsibility in Islamic banks of Bangladesh Samina. *World Journal of Social Sciences*, 2(6), 1–13.

Simpson, W. G., &Kohers, T. (2002). The link between corporate social and financial performance: Evidence from the banking industry. *Journal of Business Ethics*, 35(2), 97–109.

Wu, M.-W., & Shen, C.-H. (2013). Corporate social responsibility in the banking industry: Motives and financial performance. *Journal of Banking & Finance*, 37(9), 3529–3547.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Corporate Social Responsibity Policy Statement and Reporting Practices by Indian Corporate Sector

NIKHIL BHUSAN DEY

Abstract: In the recent years, business and society interrelation has been gradually recognised and a paradigm shift is observed from the old stockholders theory to stakeholders' theory. Business houses are utilising the resources from society like natural resources, human resources and financial resources. In turn, these social resources are converted into utility product and services and are being used by the society. In the process of use of resources business organisations are using technology, creating employment and many a time causing harm to the environment. The paper examines the extent of formulation of Corporate Social Responsibility Policy by the Indian Companies before and after the CSR Rules 2014. The required secondary data have been collected from Annual Reports and Websites of the selected companies. The sample company were selected from BSE Top 200 companies. The availability of the Annual Reports from 2012-13 to 2015-16 were considered for inclusion in the sample. Since, the implementation date of CSR Rule according to the Companies Act. 2013 was 1st April 2014 the Annual Reports were segregated into two parts 'before' and 'after'. It appears from the table 1 and chart 1 that after the introduction of the CSR Rule almost all the companies under study (except four companies) declared CSR Policy as a part of their business strategy. Before the introduction of the Companies Act 2013, 37 companies out of 57 companies i.e. 65% only had declared CSR Policy in their Website/Annual report. After the introduction of the CSR Rules 93% of the companies had declared CSR Policy in their Website/Annual report. The paper suggests that formulation of CSR Policy should be mandatory for every company along with the economic objective and CSR Policy should be included in every document and website along with vision, mission and objective of the company.

Key words: CSR Policy, CSR Rules,2014, Pre-Mandatory period, Post-Mandatory period

Introduction

Business organisations are basically social institutions. Business establishment are for the society, by the society and of the society. Almost all civilization centred

Professor Nikhil Bhusan Dey is Professor (Retd), Department of Commerce, Assam University Silchar.

around business activities. Despite close bonding of business with society, social objectives of business organisations are not appropriately addressed in our academic literature so far. The focus of business literature has been towards profit objective with complete disregard to social objective has nurtured a mindset of conflicts on the issue of social objective and profit objective. Basically social objective and economic objectives are complementary to each other. In the recent years, business and society interrelation has been gradually recognised and a paradigm shift is observed from the old stockholders theory to stakeholders' theory. In the context of growing awareness about the role of business in serving the stakeholders new areas and issues relating to contribution of business towards the society is observed. Inclusion of business ethics, corporate governance and corporate social responsibility in the literature of business studies are some positive steps in this direction. It is observed that management institute and business studies are making managers and entrepreneurs without social touch and with an expectation of economic performance as an indicator of business performance.

The economic objectives are so much highlighted in our studies so that profit, loss, assets, liabilities, capital, financial management, operation, human resource, marketing, etc. become important areas for studies. Of late it is observed that business ethics, social responsibility, corporate governance, environment management and reporting, social reporting etc. has been taken into consideration for studies focussing on social side of the business.

Business houses are utilising the resources from society like natural resources, human resources and financial resources. In turn, these social resources are converted into utility product and services and are being used by the society. In the process of use of resources business organisations are using technology, creating employment and many a time causing harm to the environment. Hence, business has a responsibility towards the society not only in terms of providing quality goods and services, creating employment, payment of taxes, etc. they are also expected to participate in other social activities like spread of education, health services, protection of environment, eradication of poverty, etc.

Review of Literature

Vishwanadham and Subramanyam (1986) analysed the influence of social responsibility on the performance of public enterprises and problems involved therein. Krishnan (1992) examined the attitude of managers towards the need for and rationale of corporate social reporting and social auditing models.

Sengupta (1993) enquired how do the Indian public enterprises approach social goals in terms of planning, control and appraisal of social obligation/performance and also analysed their involvement in major social action programmes. Gupta (1995) examined the difference in the social reporting practice of public sector companies and private sector companies and also examined the influence of company characteristics on corporate social disclosure.

Agarwal, (1997) evaluated the status of social responsibility disclosure practices in Indian companies and also examined the difference in social reporting practices of private sector and public sector companies in India. Ponnu and Okoth (2009) studied corporate social responsibility disclosure practices in Kenyan companies listed on the Nairobi Stock Exchange. The analysis of the study revealed that CSR disclosure received only modest attention and the most commonly disclosed area was community involvement. There were significant differences among various industry groupings with respect to company background and themes of CSR disclosure.

Objectives of the Study

- To examine the formulation of corporate social responsibility policy by the Indian Companies before and after the CSR Rules 2014.
- To examine the corporate social responsibility reporting practices by Indian corporate sector before and after the CSR Rules.

Hypotheses

Hypothesis Ho_1: There is no difference in formulation of CSR policies by Indian companies during pre-mandatory period and post- mandatory period.

Hypothesis Ho_2: There is no difference in CSR reporting of Indian companies during pre-mandatory period and post- mandatory period.

Methodology of the Study

The present study is empirical in nature and is based on secondary data. The required secondary data have been collected from Annual Reports and Websites of the selected companies. The sample company were selected from BSE top 200 companies. The availability of the Annual Reports from 2012-13 to 2015-16 were considered for inclusion in the sample. Since, the implementation date of CSR Rule according to the Companies Act. 2013 was 1st April 2014, the Annual Reports were segregated into two parts 'before' and 'after'. The website of the companies were searched and the Annual Reports were downloaded. Out of the Annual Reports of 2012-13 and 2013-14, the Annual Reports of 2013-14 were considered for collecting the data of turnover, profit, CSR spending, net worth, age of the company, region, area of expenditure, etc. In some cases the Annual Reports of

12-13 were considered where Annual Reports of 2013-14 were not available. So far as the after the Companies Act. 2013 the Annual Reports of 2015-16 were mostly included and in some cases where 2015-16 were not available 2014-15 were considered. This is mainly because the companies are expected to spend the CSR amount more effectively from 15-16 onwards because of initial teething problems during 14-15. In taking the annual report of any one of the two year in prior or after it is felt that there is no substantial change so far as the CSR spending prior to or after 1st April 2014.

Top BSE 200 companies during the year 2014-15 were considered. Since, these are top companies; the CSR spending practices may not reflect the overall corporate structure of India. Out of these 200 companies initially 80 companies were selected on the basis of availability of Annual Reports in the website of the respective companies. Out of these 80 companies there are some mismatches so far as availability of Annual Reports, expenditure and currency related issues and non availability of Annual Reports ultimately 57 companies were finally considered for data analysis.

The selected companies are categorised into different industry groups. Necessary statistical tools have been used like descriptive statistics and paired t-test. The relevant data are entered into Excel and then into SPSS 16.0.

Data Analysis and Discussion

The information pertaining to declaration of CSR Policy, the formation of CSR Committee CSR reporting, and the web reporting by the companies were also collected and analysed in the light of introduction of CSR Rule under the Companies Act. 2013.

Table 1: CSR Policy as available category wise before and after Companies Act

Industries	No. of Co.	Before		After	
		No.	%	No.	%
Banking	7	5	71.43	6	85.71
Petrochemicals	5	5	100.00	5	100.00
IT-Software	2	1	50.00	2	100.00
Pharmaceutical industries	6	3	50.00	6	100.00
Electrical, Power Generation and accessories	5	3	60.00	4	80.00
Cement & Construction companies	5	4	80.00	5	100.00

Contd...

Contd...

Automobile & Accessories	6	4	66.67	6	100.00
Fast Moving Consumer Goods	4	3	75.00	4	100.00
Steel/Sponge Iron/Pig Iron	2	2	100.00	2	100.00
Miscellaneous	15	7	46.67	13	86.67

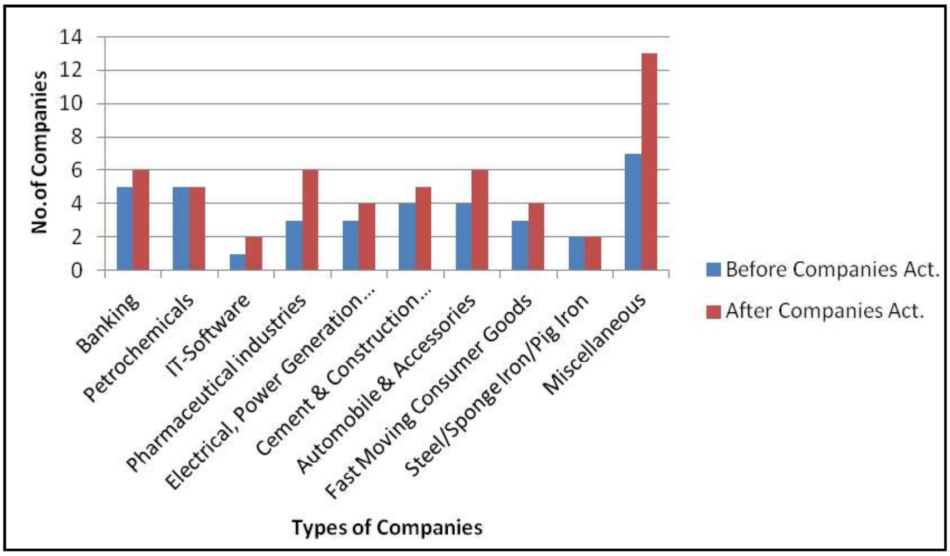

Figure 1: No. of Companies category wise having CSR Policy before and after the Companies Act.

It appears from the table 1 and chart 1 that after the introduction of the CSR Rule almost all the companies under study (except four companies) declared CSR Policy as a part of their business strategy. Before the introduction of the Companies Act 2013, 37 companies out of 57 companies i.e. 65% only had declared CSR Policy in their Website/Annual report. After the introduction of the CSR Rules 93% of the companies had declared CSR Policy in their Website/ Annual report.

In order to see whether there is any significant difference in regard to CSR Policy formulated by the number of companies before and after the CSR Rules, it was observed that there is significant difference in CSR Policy formulation before and after the CSR Rules since the t-value is -2.848 at 9 degrees of freedom is highly significant as the significance value for two tailed test is 0.019 (i.e. less than 0.05). Therefore, the null hypothesis is rejected.

The CSR Reporting practices by selected Companies were also examined and presented below.

Table 2: CSR policy before and after the CSR Rules
Paired Samples Test

	Paired differences							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper	T	Dr	Sig.(2 tailed
Pair 1 Before CSR Policy – After CSR Policy	-1.60000	1.77639	.56174	-2.87075	-.32925	-2.848	9	.019

Table 3: CSR Reporting according to types of companies before and after the Companies Act.

Industries	No. of Co.	Before No.	Before %	After No.	After %
Banking	7	5	71.43	5	71.43
Petrochemicals	5	5	100.00	5	100.00
IT-Software	2	1	50.00	2	100.00
Pharmaceutical industries	6	3	50.00	5	83.33
Electrical, Power Generation & accessories	5	3	60.00	4	80.00
Cement & Construction companies	5	4	80.00	5	100.00
Automobile & Accessories	6	6	100.00	6	100.00
Fast Moving Consumer Goods	4	1	25.00	3	75.00
Steel/Sponge Iron/Pig Iron	2	2	100.00	2	100.00
Miscellaneous	15	9	60.00	14	93.33

Before the Companies Act 2013 and CSR Rules 2014, 68% of the sample companies had reported their CSR activities in their Annual Report or stand alone report/ web site. However, after the Companies Act and CSR Rules the reporting has increased to 89%.

In order to see whether there is any significant difference in regard to CSR reporting by the number of companies before and after the CSR Rules, it was observed that there is significant difference in CSR reporting before and after the CSR Rules since the t-value is -2.449 at 9 degrees of freedom is highly significant as the significance value for two tailed test is 0.037. Therefore, the null hypothesis is rejected.

Table 4: Paired t-test of CSR reporting before and after the Companies Act

	Paired differences							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper	T	Dr	Sig.(2 tailed
Pair 1 Before Policy – After Policy	-1.20000	1.54919	.48990	-2.30823	-.09177	-2.449	9	.037

Findings

- Before the introduction of the Companies Act 2013, 37 companies out of 57 companies i.e. 65% only had declared CSR Policy in their Website/ Annual Report. After the introduction of the CSR Rules 93% of the companies had declared CSR Policy in their Website/Annual Report.
- By applying paired t-test, it is observed that there is significant difference in CSR Policy formulation before and after the implementation of CSR Rules.
- Before the Companies Act 2013 and CSR Rules 2014, 68% of the sample companies had reported their CSR activities in their Annual Report or Stand Alone Report/Web site. However, after the Companies Act and CSR Rules, the reporting has increased to 89%.
- By applying paired t-test, it is observed that there is significant difference in CSR reporting before and after the CSR Rules since the t-value -2.449 at 9 degrees of freedom is highly significant as the significant value for two tailed test is 0.037.

Suggestions and Conclusion

Social responsibility of business in India has been practised from time immemorial. In recent years, business ethics and CSR is being practised by the companies in the context of national voluntary guidelines and other measures adopted by SEBI and Govt of India. In addition to that the Companies Act 2013 is a landmark legislation in this regard. It will go a long way for companies to participate for the social cause and it is expected that CSR spending will positively influence in solving social problems which will ultimately address the triple bottom line issues. It will also help in sustainable development of business. Some of the important suggestions are formulation of CSR Policy should be mandatory for every company along with the economic objective. CSR Policy should be included in every document and website along with vision, mission and objective of the company.

REFERENCES

Agarwal, R.S. (1997), Corporate social information disclosure: A comparative study, *The Management Accountant.* Kolkata: ICWAI Calcutta. March Issue.

Gupta, Deepak (1995). Corporate social accountability, New Delhi: Mittal Publication.

Krishnan, C. Gopala. (1992). Corporate social responsibility in India, New Delhi: Mittal Publication.

Ponnu, Cyril H. and Okoth, Maurice O. A.(2009). Corporate social responsibility disclosure in Kenya: The Nairobi Stock Exchange, *African Journal of Business Management* Vol.3 (10), October. doi: 10.5897/AJBM09.118

Sengupta, Palas. R.,(1993). Social performance of public enterprises. Delhi: Kanishka Publishers and Distributers.

Vishwanatham,V and Subromanayam,P. (1986). Social responsibility and performance of public enterprises: A case study of APSRTC" in Rao, Y.S, Public Enterprises: A State Level Perspective. Delhi: B.R. Publishing Corporation.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Talent Attraction and Retention in IT Sector: Role of Employer Branding

DEBASISH BISWAS, ARUNANGSHU GIRI AND DEBABRATA MITRA

Abstract: *Of late, 'employer branding' is a matter of concern in all organizations. Due to improper employer branding, organizations are suffering from lots of problems to attract and retain capable workforce. In this globalized era, employment is becoming very competitive. Most IT companies are under pressure to appeal, recruit, motivate, and maintain the greatest possible human ability. Consequently, they use employer branding as a unique strategy to differentiate their identity as employer from their competitors and to expose the facilities they offer which motivate the employees to retain in the job. So, the employer has to build up the brand image to acquire and retain the key talent. In this study, we have made a deliberate attempt to determine the factors affecting the employer value propositions and to measure the impact of the overall employer branding on talent attraction and retention.*

Key words: Globalized era, Employment, Talent attraction, Retention, Employer branding.

Introduction

Of late, 'employer branding' is a matter of concern in all organizations. Due to improper employer branding, organizations are suffering from lots of problems to attract and retain capable workforce mainly in industries. In this globalized era, employment is becoming very competitive. Most IT companies are under pressure to appeal, recruit, motivate, and maintain the greatest possible human ability. Consequently, they use employer branding as a unique strategy to differentiate their identity as employer from their competitors and to expose the facilities they offer which motivate the employees to retain in the job. So, the employer has to build up the brand image to acquire and retain the key talent.

Dr. Debasish Biswas is Assistant Professor & Head, Deptt. of Business Administration, Vidyasagar University, West Bengal, Dr. Arunangshu Giri is Associate Professor, School of Management & Social Science, Haldia Institute of Technology, Haldia, West Bengal, and Prof. Debabrata Mitra is Professor, Deptt. of Commerce, University of North Bengal, West Bengal, India.

Review of Literature

The term 'Employer branding' was first propounded by Tim Ambler and Simon Barrow in 1990. Employer branding recognized that human capital is very important for organizational success (Backhaus and Tikoo, 2004). Mosley (2007) argued that organizations must differentiate themselves to attract and retain employees to fulfill their corporate ambition.

There are a plethora of theories about marketing and branding, and a large number of literatures discussing corporate image and corporate reputation.

However, there are only a few theories available concerning employer branding, especially the linkage between employer brand and consumer marketing communication methods. A brand was defined as a name, sign, symbol or design, or any combination which is intended to identify the goods and services of one seller or cluster of sellers and to differentiate them from those of competitors (Gardner & Levy, 1995). Clark (1987) on the other hand, offered another definition relating brands with values that provide the important link between consumers and marketers. Kapferer (1992) approached brands under a holistic view. He claimed that a brand is not a mere product. It is a product's essence and often brands are examined through their component parts like brand name, logo, design or packaging, etc. According to Keller (1993), brand equity elevated the importance of brand in marketing communication strategy and is often used to persuade customers. However, in today's competitive market, employer branding is used to recruit and retain high-quality workforce from a diverse work force. Most companies tend to promote factors that make their firm a good place to work and also offering a bright and cheerful office space, teamwork, flexible working hours, crèche facilities, or even an excellent canteen. Levering (1996) opined that a good workplace is believed to produce higher quality products, support more innovation, have the ability to attract more talented people, and experience less resistance to change and lower turnover costs, etc. translate directly into a better bottom line. According to Karg (2002), in organization's skilled employees are hard to attract and difficult to retain and it has become critical to business success. The employer branding is used for corporate identity and reputation which communicates its image to current and potential employees. Luthans and Peterson (2002) observed that employees who are engaged in their organization with satisfaction reveal good performance and achieve success. This helps the corporate managers to be more effective and successful.

According to Robert & Dowling (2002), superior performing firms have a greater chance of sustaining superior performance over time if they also acquire reasonably good image. Collins and Stevens (2002) stated that early recruitment and advertising may have beneficial effects on increasing the quantity and quality of applicants. Fulmer, Gerhart and Scott (2003) analyzed employer branding policies on top 100 US companies. They found that employer branding policies were associated with not only stable and highly positive workforce attitudes but also had effect on the organization's performance. Turban and Cable (2003) argued that organizations higher in CSP have more positive reputations and are more attractive employers to employees than organizations having lower CSP.

Levinson (2007) suggested that happy employees are more likely to stay in their organization, and found that work engagement is significantly related to organizational commitment. From the literature reviewed, it is evident that limited researches have been carried on the above stated area in the Indian context. Undoubtedly these studies have contributed but they have left certain gaps that need to be addressed.

Objectives

The reviews of literature have helped us to frame the following objectives.

- To identify the various factors affecting the 'employer branding'.
- To analyse the impact of 'employer branding' on 'talent attraction' and 'retention'.

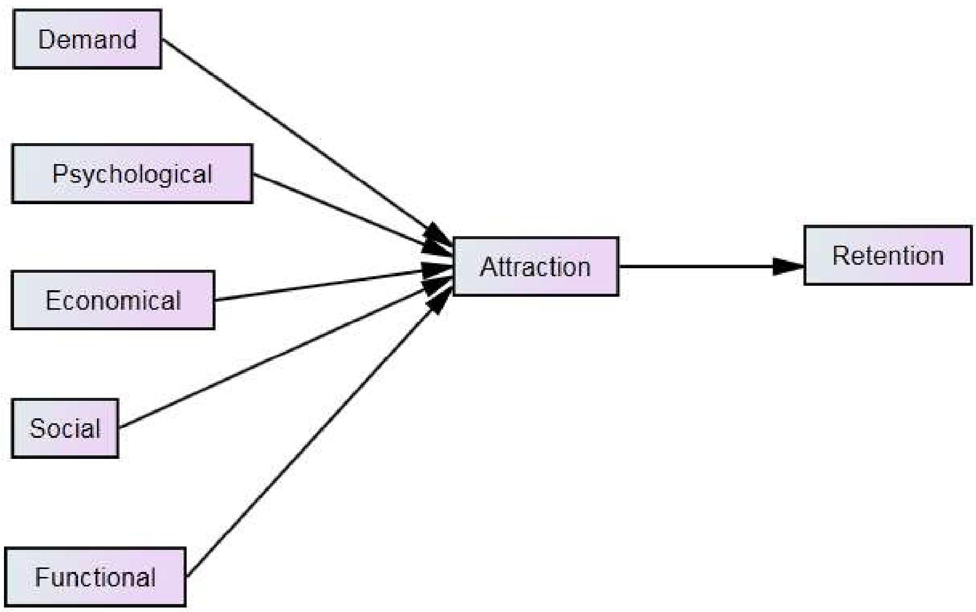

Figure 1: Proposed research model

Hypotheses

H_1: Demand value have effect on the attraction of employees.

H_2: Psychological value have effect on the attraction of employees.

H_3: Economical value have effect on the attraction of employees.

H_4: Social value have effect on the attraction of employees.

H_5: Functional value have effect on the attraction of employees.

H_6: Attraction of employees have effect on the retention of employees.

Methodology

Sources of Data

The collection of data has been done through the questionnaire filled by the employees.

Sampling

The purposive and convenience sampling methods were considered for study. We have distributed the questionnaire among 560 respondents and finally we got 508 properly filled up questionnaire from them. The study has been conducted to assess the employer branding which is deemed necessary for an organization especially in attracting and retaining of their employees. The data was composed by surveying 508 current employees of IT companies in Kolkata. This Research work has been carried out at West Bengal during the time of January 2018 to June 2018.

Variable Measurement

Our study is empirical and tries to discover the factors determining the employer branding. These factors make an image of employer among the minds of the employees. The study attempts to reveal the key factors that influence the 'employer branding'. Factor analysis reduces dimension and allows extracting common factors.

Dependent Variables: Employer branding was measured though the questionnaire based on five key dimensions which includes:

Development Value

i) Onsite job opportunities

ii) Training and development

iii) Promotion opportunities

iv) Opportunity ability to give and receive feedback
v) Attainment of career opportunities & improving experience

Functional Value

i) Relationship with your co-workers
ii) Variable working hours
iii) Balance between private and work
iv) Organizations' reputation
v) Job security
vi) Challenging work
vii) Respect for people

Psychological value

i) Self-confident
ii) Belongingness
iii) Pride
iv) Exciting work environment
v) Self –image
vi) Enjoying work culture

Social Value

i) Pleasant and social work environment
ii) Creative employer with ethical work practices and forward thinking
iii) Strategies to support internal reporting of legal activities
iv) Humanitarian organization –provides back to the society
v) Organization's CSR initiatives

Economic Value

i) Overall compensation
ii) Fringe benefits
iii) Rewards and awards for performance
iv) Retention bonus
v) Performance Incentive

After that, we have considered the attraction and retention dimension of employees using the following variables. These are shown below:

Attraction Drivers

i) Salary
ii) Job security
iii) Career advancement opportunities
iv) Learning and development
v) Vacation

Retention Factors

i) Compensation
ii) Balance between personal life and work life
iii) Working environment
iv) Superior and subordinate relationship

We have made a structural equation model using AMOS software in order to show the effect of employer branding both on attraction and retention of employees.

We have measured the attitude of employees using 5-point Liker scale ranging from 1 to 5, where, 1 = 'Strongly disagree', 2 = 'Disagree', 3 = 'Not agree nor disagree', 4 = 'Agree', 5= 'Strongly agree.

Data Analysis and Interpretation

Cronbach's *L* is designed to measure the internal consistency; that whether all items within the instrument measure the same thing. The closer the alpha is one, the greater the internal consistency being assessed. In our study, the alpha value is **.940** which is highly acceptable.

Table 1: Overall reliability results

Cronbach's Alpha	Number of Items
.940	37

Item-Total Statistics

	Mean if Item Deleted	Variance if Item Deleted	Corrected Item Total Correlation	Cronbach's Alpha if Item Deleted
D1	156.93	133.984	.516	.939
D2	156.91	134.090	.472	.939
D3	156.94	134.584	.451	.939

Contd...

D4	156.95	134.611	.471	.939
D5	156.96	135.362	.406	.939
F1	156.80	130.009	.733	.937
F2	156.80	130.009	.733	.937
F3	156.79	130.095	.732	.937
F4	156.81	130.318	.715	.937
F5	156.79	130.198	.724	.937
F6	156.83	129.723	.715	.937
F7	156.85	129.950	.685	.937
P1	156.69	134.246	.372	.940
P2	156.70	134.119	.374	.940
P3	156.80	134.326	.351	.940
P4	156.79	134.226	.366	.940
P5	156.79	133.928	.385	.940
P6	156.79	133.997	.376	.940
S1	156.68	132.086	.570	.938
S2	156.80	132.729	.490	.939
S3	156.72	132.239	.529	.938
S4	156.81	132.898	.486	.939
S5	156.79	132.531	.507	.939
E1	156.52	134.681	.372	.940
E2	156.52	135.398	.314	.940
E3	156.47	134.568	.398	.939
E4	156.55	134.069	.401	.939
E5	156.54	134.707	.358	.940
ATT1	156.81	131.264	.712	.937
ATT2	156.79	131.624	.670	.937
ATT3	156.79	131.382	.688	.937
ATT4	156.80	131.253	.710	.937
ATT5	156.78	131.547	.670	.937
RET1	156.94	129.787	.581	.938
RET2	156.91	129.689	.590	.938
RET3	156.95	130.100	.561	.938
RET4	156.95	130.195	.558	.938

Total Cases: 500

KMO ranges from zero to one and overall KMO should be 0.60 for factor analysis. In our study, we have got the KMO value .931 which is quite logical to proceed for factor analysis. The result is shown below:

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		**.931**
Bartlett's Test of Sphericity	Approx. Chi-Square	51086.922
	df	1431
	Sig.	.001

Using the result of factor analysis, we can explain the total variance and the proportionate variance of each factor which is stated in Table 3:

Table 3: Total variance explained

Factors	Total	% of Variance	Cumulative %
Development Value	6.684	18.065	18.065
Functional Value	5.394	14.578	32.644
Psychological Value	4.287	11.588	44.231
Social Value	4.257	11.505	55.736
Economical Value	4.132	11.167	66.903
Attraction	4.121	11.137	78.040
Retention	3.872	10.464	88.503

From the above table 3, it is very clear that Development Value explains 18.065 % variance followed by Functional Value, Psychological Value, Social Value, Economical Value, Attraction and Retention. In our study, we have explained total 88.503 % variance through the above stated components.

We have constructed rotated component matrix to identify the factors. This is represented below:

Table 4: Rotated component matrix

	Component						
	1	2	3	4	5	6	7
F2	.934						
F1	.934						
F3	.917						

Contd...

F5	.916						
F4	.888						
F6	.887						
F7	.870						
P4		.960					
P3		.952					
P6		.937					
P5		.932					
P1		.910					
P2		.906					
D4			.900				
D1			.881				
D3			.875				
D5			.846				
D2			.800				
S5				.915			
S2				.909			
S3				.878			
S4				.854			
S1				.809			
E1					.927		
E5					.913		
E4					.905		
E3					.850		
E2					.805		
ATT1						.849	
ATT2						.839	
ATT5						.828	
ATT3						.815	
ATT4						.795	
RET1							.916
RET3							.914
RET4							.909
RET2							.893

Extraction Method: Principal Component Analysis.

Analysis of Moment Structure (AMOS)

Table 5: Fit indices of CFA for structural model

Fit Index	Acceptable Threshold Levels	Structural Model Values
÷2/df (Chi-square / degree of freedom)	Values less than 3	1.849
RMSEA (Root mean-square error of approximation)	Values less than 0.06	0.041
GFI (Goodness of fit index)	Values greater than 0.90	0.996
AGFI (Adjusted goodness of fit index)	Values greater than 0.90	0.971
NFI (Normed fit index)	Values greater than 0.90	0.991
CFI (Comparative fit index)	Values greater than 0.90	0.996

C MIN / DF: It may help to modify the path to obtain a better result on the model fit. As per our analysis shown in Table: 5, it is 1.849 which is acceptable.

Goodness of Fit Index (GFI) and Adjusted Goodness of Fit (AGFI): It ranges from Zero (poor fit) to One (perfect fit). In our study, we have got the GFI value .996 as shown in Table 5.

Adjusted Goodness of Fit (AGFI): It should be e".90 for goodness of model fit. In our analysis, we have obtained the AGFI value .971 as shown in Table: 5.

Root Mean Square Error of Approximation (RMSEA): In our study as shown in Table: 5, we have got RMSEA value .041 which is acceptable. The range of RMSEA is < .08 acceptable, <.05 excellent. (Brown and Cudeck, 1993)

Normed Fit Index (NFI) & Comparative Fit Index (CFI): It should be e".90 for goodness of model fit. In our result, we have got the NFI value .991 and CFI value .996 as shown in Table: 5.

The path analysis. It shows that all the hypotheses have been supported.

Table 6: Path analysis of structural model

Measurement Path		Hypothesis	Regression Estimate	t- Value (C.R.)	P-Value	Assessment
Attraction	Development	H_1	.512	12.540	***	Supported
Attraction	Psychological	H_2	.082	2.841	.004	Supported
Attraction	Economical	H_3	.083	2.429	.015	Supported
Attraction	Social	H_4	.183	5.241	***	Supported
Attraction	Functional	H_5	.430	13.031	***	Supported

Contd...

Retention	Attraction	H_6	.757	12.495	***	Supported
Retention	Functional	New (Created)	.138	2.561	.010	Supported

*Significant Regression co-efficient (P<0.01 and 0.05)

From the Path analysis, it is observed that 'functional value' is the strongest determinant (t value = + 13.031) which impacts positively on the attraction of employees. It is further shown that 'attraction of employees' (t value = + 12.495) positively impacts the retention of employees. It is also seen that 'development' (t value = + 12.540), 'social' (t value = + 5.241), 'psychological' (t value = + 2.841) and 'economical' (t value = + 2.429) have also direct positive influence on 'attraction of employees'. It is also observed that 'functional value' (t value = + 2.561) of an organization has a direct impact on the retention of employees.

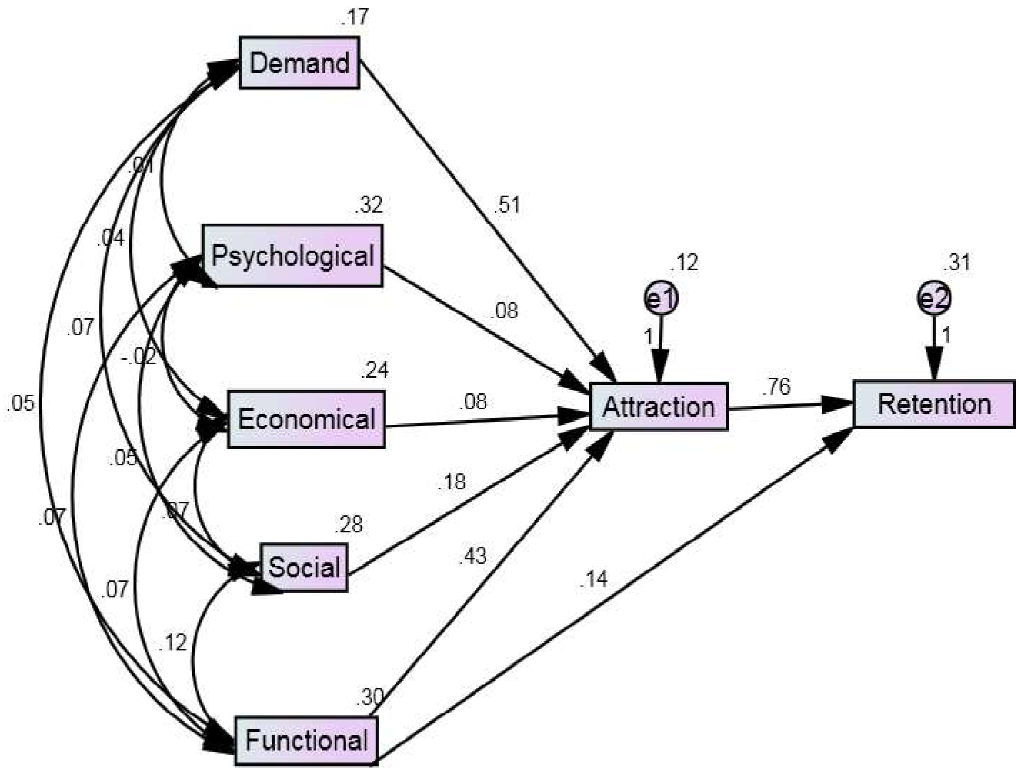

Figure 2: Path diagram of hypothesized structural model

Table7: Measurement model result

Constructs/ Factors	Variables	Standardized Regression Estimate	CR	AVE	MSV	ASV
Demand	D1	0.768	0.894	0.629	0.075	0.022
	D5	0.704				
	D2	0.715				
	D3	0.664				
	D4	0.719				
Functional	F1	0.752	0.839	0.511	0.075	0.033
	F7	0.746				
	F2	0.786				
	F3	0.705				
	F4	0.682				
	F5	0.77				
	F6	0.66				
Psychological	P6	0.771	0.894	0.586	0.085	0.035
	P1	0.71				
	P2	0.796				
	P3	0.802				
	P4	0.773				
	P5	0.737				
Social	S1	0.771	0.891	0.621	0.018	0.005
	S5	0.787				
	S2	0.844				
	S3	0.751				
	S4	0.783				
Economical	EC1	0.784	0.917	0.690	0.039	0.010
	EC5	0.849				
	EC4	0.795				
	EC3	0.86				
	EC2	0.862				

Contd...

Attraction	ATT1	0.767	0.897	0.686	0.038	0.013
	ATT5	0.811				
	ATT4	0.788				
	ATT3	0.834				
	ATT2	0.763				
Retention	RET1	0.825	0.888	0.533	0.085	0.032
	RET2	0.855				
	RET3	0.804				
	RET4	0.829				

Construct Reliabilities values which exceed 0.7 supports internal consistency among various factors. All Average Variance Extracted values exceed 0.5 supports the convergent validity of the model. The conditions (CR > AVE, MSV < AVE and ASV < AVE) also support both the Convergent & Discriminant validity.

Our empirical result shows that Development Value, Psychological Value, Social Value, Economical Value, and Functional Value positively influenced employee attraction and retention. Our empirical study proves that employer branding is a significant determinant of both employee attraction & retention in the IT sector.

Conclusions

This analytical study has given a focus on the impact of branding on both employee attraction and retention in the IT sector which ultimately distinguish itself to obtain the best workforce. The employee contentment is the ultimate motto of any organization. The employee contentment is highly reliant on employer branding. Through employer branding, organization enables to attract and retain the capable workforce. At present, employer brand is essential to enjoy competitive advantage. So, in a nutshell, we may claim that employer branding is a good solution to ensure the talented or knowledge employees which ultimately leads to success in the highly competitive market.

There are some limitations that could be addressed in future research. As the research is exploratory, therefore we have only taken five important factors which influence employer branding and the study has concentrated only on the IT sector.

REFERENCES

Ambler, T. & Barrow, S. (1996). The employer brand. *Journal of Brand Management*, 4, 185-206

Backhaus K, Tikoo S. (2004). Conceptualizing and researching employer branding, *Career Development International*. 2004; 9(4/5):50510.

Barrow, S., & Mosley, R. (2005). The employer brand: bringing the best of brand management to people at work. New York: John Wiley & Sons

Clark, Harold F. Jr., (1987). Consumer and corporate values: yet another view on global marketing, *International Journal of Advertising*, 6(1), pp 29 -- 42.

Collins, C.J. and Stevens, C.K. (2002). The relationship between early recruitment related activities and the application decisions of new labour-market entrants: a brand equity approach to recruitment, *Journal of Applied Psychology*, 87(6). pp1121–1133

Fulmer, I.S., Gerhart, B. and Scott, K.S. (2003). Are the 100 best better? An empirical investigation of the relationship between being a 'great place to work' and firm performance, *Personnel Psychology*, 56(4), winter, pp 965–993

Gardner, B. B. & Levy, S.J. (1955). The product and the brand, *Harvard Business Review*, vol. 91, January, pp 1-67.

Kapferer, J. N., (1992). Strategic Brand Management, N.Y.: Free Press - London: Kogan page.

Keller, K.L. (1993). Conceptualizing, measuring, and managing customer based brand equity, *Journal of Marketing*, 57, pp 1-22.

Levering, R. (1996). Employability and trust. conference board meeting, Chicago, Retrieved August 3, 2004, from http://resources.greatplacetowork.com/ article/pdf/ building trust. pdf

Levinson E (2007). Developing high employee engagement makes good business sense, www.interactionassociates.com/ideas/2007/05/developing_high_ employee_ engagement_makes_good_business_sense.php

Luthans F. & Peterson S.J. (2002). Employee engagement and manager self efficacy: implications for managerial effectiveness and development, *Journal of Management Development*, 21(5), pp. 376–387

Robert, P. W., & Dowling, G. R. (2002). Corporate reputation and sustained superior financial performance, *Strategic Management Journal*, 23, pp 1077-1093

Sutherland, M. M., Torricelli, D. G., & Karg, R. F. (2002). Employer-of-choice branding for knowledge workers, *South African Journal of Business Management*, 33(4), pp 13-20.

Sutherland, M. M., Torricelli, D. G., & Karg, R. F. (2002). Employer-of-choice branding for knowledge workers, *South African Journal of Business Management*, 33(4), pp.13-20

Turban, D. B., & Cable, D. M. (2003). Firm reputation and applicant pool characteristics, *Journal of Organizational Behaviour*, 24, pp 733-751.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Consumer Perceived Value of Advertisement on Social Networking Sites

ANUPRIYA PANDEY AND NAZIA HASAN

Abstract: The aim of this study is to get an insight on consumer perceived value of advertisements on social networking sites and consumer attitude towards social media advertising and to find the effect of level of internet usage of the internet users on their perceptions and attitude towards this advertising. 6 factors have been identified which would affect the perceived value of consumers towards advertising on social networking sites were identified from the existing literature on advertising in general and advertising on internet and social media. These factors were (1) informativeness, (2) credibility, (3) entertainment, (4) intrusiveness, (5) interactivity, and (6) relevance of the advertisement.

Key words: Social Media Advertising, Behavioual Intention, Perceived Value, Attitude

Introduction

Talk of social media and there is hardly anyone across the globe who is not aware of it, irrespective of their class, creed, race or culture. Facebook, Twitter, Linked In, Myspace, WAYN etc. have become an integral part of peoples' life. It has become tremendously popular amongst marketers as well to reach to their actual and potential customers.

However, there are limited studies in India on social media and its potential for effective and powerful advertising amongst its users. This is due to the fact the pace, at which social networks and their identified potential for becoming an effective advertising medium became popular, was so high that not many researcher were able to match that pace. Most studies of social media describe the functionality and characteristics of social networking websites and the challenges and opportunities for advertisers to implement marketing communication programs (Hill & Moran, 2011; Kaplan & Haenlein, 2010; Mangold & Faulds, 2009), the influence of social media content on consumers (Ko, Chun, Song, & Kim, 2013), and the effects of social network users' lifestyles on brand loyalty (Park, Song, & Ko, 2011). However, there is a lack of understanding of consumers perceive advertising on social media and what characteristics of

Dr. Anupriya Pandey is Asst. Professor, SOMS, IGNOU, Maidan Garhi, New Delhi and Ms. Nazia Hasan is M.Phil, SOMS, IGNOU, Maidan Garhi, New Delhi

advertisements on social media affect their attitude, especially in the case of Indian consumers.

In the studies on consumer attitude towards advertising, respondents typically have been asked not only about their overall attitudes toward advertisements but also about their perceptions of advertising's trustworthiness, offensiveness, informativeness, entertainment, interactivity, effect on product prices, as well as attitudes toward regulatory issues (Ducoffe, 1996; Yaakop, Anuar, Omar & Liung 2012; Wang, Sun, Lei, and Toncar, 2009; Chandra, Goswami, Chouhan, 2012).

Literature Review

Perception, as defined by Kotler and Armstrong (2001) and cited in Adnan & Khan, (2010), is "the process by which people select, organize and interpret information to form a meaningful picture of the world". The process of perception consists of three elements - exposure, attention and interpretation. It is the first and the most practical step in consumer buying decision processes to select stimuli from their atmosphere.

On the other hand, attitude can be anything that people discriminate and hold in mind and thereby express in either positive or negative way (Bohner & Wanke, 2002 cited in Alcheva et al., 2009). Evans et al. (2009) noted that "Attitude is the way one thinks and acts towards some aspect of the environment" and an individual's lifestyle is dramatically influenced by attitudes. Attitude consists of three elements: cognitive (beliefs), affective (feelings) and behavioural (response tendencies) (cited in Phanthong & Settanaranon, 2011). In relations to the advertising industry, Javid et al., 2012 states that attitude toward advertising is defined as the consumers' tendency to react positively or negatively in a manner specific to mobile advertising. It is essential for marketers to understand the nature of consumers' attitude and perception towards advertising in order to communicate their messages efficientl. Because the way people perceive and interpret the communication and the attitude they adopt towards the source of communication may vary depending on their perspective.

Informativeness, as used by Oh and Xu (2003), is the ability to effectively provide relevant information. Rubin (2002) states that one of the most vital functions of advertising is to provide information. It also states that searching for information is the primary reason why do people use the Internet.Thus, it is logically sound to believe that those who perceive online advertising to be informative are more likely to favor it. For instance, Ducoffe (1996) identified a strong correlation between informativeness and Internet advertising value and later on in the research conducted by Schlosser et. al 1999, majority of participants agreed either somewhat or strongly that internet advertising is informative. This is supported by Wang, Sun, Lei, & Toncar (2009) that the information-seeking factor acts as a positive predictor for the formation of consumers' attitude towards online advertising

Credibility refers to the quality of being trusted or believable. In the context of advertising industry, Moore & Rodgers 2005 defines advertising credibility as the extent to which the consumer believes or trusts in the media or advertising claims. Numerous studies affirm that advertising credibility is a key factor that affects the formation of attitude and behaviour (Lafferty and Goldsmith, 1999; Brackett and Carr, 2001; Tsang, Ho, and Liang, 2004; Haghirian and Madlberger, 2005). Credibility of an advertisement is influenced by different factors, such as the company's credibility and the bearer of the message (Lafferty, Goldsmith and Newell, 2002). It is also influenced by the advertising medium. To talk about the new medium, i.e., the social media, Wolin et al., 2002 states that due to the immaturity of the market, lack of awareness and a lack of regulation systems, consumers in developing markets often hold deep concern about the trustworthiness of online advertising.

Advertising has the ability to give pleasure or entertainment to consumers while watching advertising information. Entertainment by any advertisement enhances consumers' sense of satisfaction towards the usefulness of product and message contained in the advertisement. (Ducoffe, 1996; Hoffman and Novak, 1996; Wang & Zhang, 2006; Wang and Sun, 2010; Mir, 2012; Yaakop, Hemsley & Gilbert, 2011). Sutherland (2008) has vividly described at length, how can humour or entertainment in advertising help the advertisers to make their advertisements effective. It reduces counter arguing by the viewers or readers, draws greater attention and makes them more liked. Ads that are more liked have greater probability of being effective, other things remaining equal. This can act as 'feather' to tip the balance. Khajeh et. al. 2015 state that advertising that is understood quickly and perceived funny by the consumers will trigger their interests and provides their loyalty. There is a propensity in human nature, especially in children and young people to play. So consumers have the highest level of participation in messages that contain entertaining games. Games and prizes sent to target group's mobile phone was considered a successful method usable to restore consumer and their loyalty (Ounal et al., 2011).

Internet advertisers use intrusive tools such as expandable ads, roll over ads, floating ads and interstitials that "take over" the screen, ads in the beginning or middle of an online video and so forth just to make their advertisements get noticed. These intrusive forms can lead to annoyance, irritation and ad avoidance which reduces the effectiveness of advertising and the value perceived by the audience (Ounal et al., 2012).While the number of users adopting the Internet in India has been growing rapidly, a sizable proportion of users feel that the advertisements on this medium are very intrusive in nature. These users are actively installing software that can stop these ads from appearing on their browsers. As of 2016, Around 122 million Internet users in India have installed some kind of ad blocking software on their browsers(mostly anti-virus softwares). This is making advertisers and publishers lose a huge amount of Advertising revenue (Page Fair: Mobile Ad Blocking, 2016).

Another factor mostly used to assess the attitude towards advertising is its value. The perceived value of advertising is the subjective evaluation of the value of advertising and may be used as an indicator of customer satisfaction in the organization's communication products (Liu et al., 2012). Existing literature suggests that value of advertising can be assessed by different aspects of the ads. Schlosser, et. al, 1999, for example, defined value of advertising as its effectiveness in meeting consumers' needs — how informative and entertaining the advertising is and how it is useful for making purchase decisions. Chandra, et. al, 2012 defined value in terms of its usefulness in making purchase decisions and lowering the price of products. Petrovici et al., 2007 states that the economic benefit of advertising is the ability of the advertisers to provide accurate and reliable information about their products to the audience. The Converged Lifestyle, KPMG International, 2011 states that only about a third of respondents admit that they are influenced in their purchasing decision by 'fan pages' and advertisements on social media while almost half say that they look to company websites instead. This may merely indicate consumers' desire to see the 'technical specifications' of products, more typically found on a company's web-site rather than on 'fan pages' which are predominantly for brand-building.

The online privacy debate has existed since the creation of the Internet (Roberts 2010). This is because of the practice of behavioural targeting of internet users by the advertisers.Consumers prefer advertisements to be tailored to them specifically and will ignore irrelevant advertisements. This can also relate to the brand recognition in the sense that the users will recognize the brands targeted specifically towards them; and the ones which they have interest in (Bhattacharya, Scott, & Arthur, 2006). However, making the ads relevant to the audience leads to loss of privacy of consumers. Mc Donald, et. al 2009 revealed that respondents were seriously concerned about their online privacy and held negative attitude towards online ads based on privacy concerns. In social networking sites, privacy concern has also been an issue since users share their information and preferences such as their personal details, images, status, hobbies and so on. Barnes (2006) stated that youth culture has embraced online social networking and they are now publicly sharing very personal information on these sites. On Facebook, however, it offers an access to user information and generates profile privacy settings in order to overcome the concern of privacy (Ragan 2009). While privacy policies are often criticized as difficult or time consuming to read (McDonald and Cranor, 2009; McDonald, Reeder, Kelley, and Cranor, 2009), there is evidence that if a website has a privacy policy, individuals are more likely to share personal information with the website (Cranor et al., 2000).

It may be noted that there have been less studies on finding the impact of internet usage level of consumers on their perception and attitude towards social media advertising. The limited number of studies (e.g. Wu, 2012; Cho, 2008; Heinz, 2002 and Christos, 2000) which have tried to throw light on this area have shown that internet experience, internet usage frequency and internet browsing history do have an impact on the consumers' perception and attitude towards internet advertising. Furthermore, gender, age and education have been found to have an impact on the internet usage levels and patterns (Gross, 2004).

While women mostly go online to shop or chat, men are keen towards surfing on the net or playing games(Gross, 2004). Undergraduate students are mostly involved in online communication via e-mail, QQ, chat room with friends compared to other educational level groups. Those with higher education or in professional world tend to search for more informative things rather than looking for entertainment and stuff (Heinz, 2002). Factors like personal interest, demography, internet connectivity, location of use, etc. highly affect the usage frequency of the internet (Christos, 2000).

Objectives of the Study

The main objectives of this study are:

- to examine the attitude and perceptions of digital consumers towards advertisementon social networking sites
- to analyze the effect of internet usage level on attitude and perception about social media advertising

Research Hypotheses

The research hypotheses for this study are categorized in 2 parts according to the two objectives of this study.The first objective of the research is to examine the attitude of consumers towards advertisemnt on social networking sites and their perception on six dimensions, viz., informativeness, entertainment, intrusiveness, credibility, relevance, and value. The hypotheses formed for this objective are stated as follows:

H_{1a} : Consumers have positive attitude towards advertisements on social networking sites

H_{1b} : Consumers find advertisements on social networking sites as informative

H_{1c} : Consumers find advertisements on social networking sites as credible

H_{1d} : Consumers find advertisements on social networking sites as entertaining

H_{1e} : Consumers find advertisements on social networking sites as intrusive

H_{1f} : Consumers find advertisements on social networking sites as valuable

H_{1g} : Consumers find advertisements on social networking sites as relevant to their interests

The second objective is to analyse the effect of internet usage level on consumers' attitude towards and perception about social media advertising. The related hypothesis is:

H_{2a}: There is a significant difference between internet usage groups in terms of their attitudes towards and perception about social media advertising

Methodology

Primary data was collected through structured questionnaire. Purposive and Snow Ball Sampling was used to select potential respondents. Most of the researches conducted on analyzing the factors affecting consumers' attitude towards internet advertising particularly advertising on social networking sites in India or in most parts of the world have collected samples from youth or students of different universities (e.g.; Goldsmith & Lafferty 2002; Calisir 2003; Ling et. al. 2010; Yaakop et. al. 2012; Mehla et. al., 2015; S. Manjunatha 2015; Aqsa et. al. 2015; Khajeh et. al. 2015). Very few researches have taken a wide (or different from students/ undergraduates) demographic profile of the respondents (e.g. Ducoffe 1996; Mehta and Sivadas, 1995; Schlosser et. al, 1999; Motwani et. al. 2014). However, in this study, a sample including persons of age ranging from 18 to above 60 years, both males and females, from different education backgrounds and different occupations were targeted. It was also made sure that only those persons were targeted who have profiles on at least one of the social networking sites and who spend some time per day online. The sample size for this study is 304.

The questionnaire consisted a total of 42 questions excluding the name, email id, demographic questions and internet usage per day. Questions related to liking, disliking, concerns, perceptions and attitude towards advertising on social networking sites were included. Questions were prepared on a 5 point likert scale. The questionnaire was circulated online- through whatsapp, facebook and emails, and also by distributing hard copies. Total sample size came out to be 304.

Results and Discussion

The results of t- test (Table 1) suggest that overall social media users have unfavourable attitude towards advertising on social media. In terms of perception about specific factors, the respondents revealed that overall they take this new kind of advertising as informative. They do not find it trustworthy, entertaining and relevant to their interest. They have neutral perception about the value of these advertisements. Also, they find these ads as intrusive in their work.

The results of ANOVA(Table 2) show that F value is significant for attitude and also for all factors of perception except value, i.e., there is a significant difference between internet usage per day groups in terms of their attitudes towards and perception about informativeness, credibility, entertainment, intrusiveness and relevance of social media advertising. It is noteworthy that for overall attitude and perception about informativeness, entertainment, intrusiveness and relevance, the mean increases as the level of internet usage per day increases (Table 5, Post – hoc tests) show that as the internet usage level increases, the consumers have more favourable (or less unfavourable) attitude and perception about advertisements on social networking sites. This is consistent with previous studies which have shown that the higher the time for which people use internet, the more positive attitude they are likely to adopt towards online advertising (Korgaonkar and Wolin, 2002; Wang, Sun, Lei and Tocar, 2009 as cited in Yan, 2012). Yan, 2012 also showed that internet browsing history is the significant positive predictor for attitudes toward online advertising.

Previous studies have shown that 'informativeness'' is one of the important predictors of overall attitude towards advertising on social media websites.That is, for consumers to have a favourable attitude towards advertising, it is a pre requisite that they get useful up- to – date information about products and services from advertisements.The findings of this study reveal that with mean = 3.24, overall, the respondents find advertisements on social networking sites as informative. The results of ANOVA show that consumer perception about informativeness of these advertisements improves as their internet usage level increases.

The overall mean for credibility is 2.906, indicating that, consumers do not find these advertisements as credible or trustworthy. The mean for the group '0- 2 hours per day' is the lowest (mean = 2.72) amongst all the groups showing that this group considers this new form of advertising as least credible.

Entertainment by any advertisement enhances consumers' sense of satisfaction towards the message contained in the advertisement. (Wang and Sun, 2010; Mir, 2012; Yaakop, Hemsley & Gilbert, 2011). Thus, entertainment has been found to affect consumer attitude. However, in this study overall mean for entertainment is 2.86 indicating that overall consumers gave low score to the entertaining nature of these advertisements. Internet usage level of consumers has been found to affect the perception of consumers about entertainment of advertisements on social networking sites. The findings reveal that only the people using internet for more than 4 hours per day have a favourable perception about entertainment of these advertisements.

Considering the intrusive nature of advertising on social media, the results of this study clearly show that the consumers find even social media advertisements as intrusive in their work(mean = 2.52). It is noteworthy that all categories of internet usage level find these advertisements as intrusive.

Regarding the value of advertising, the results show that consumers are neutral about the value of these advertisements (mean = 3.01, t = .298, p = .766). Also, the F statistic does not show any significant difference of perception about value of these advertisements among different internet usage levels.

For relevance, the overall mean is 2.65 (Table 1) indicating that consumers do not perceive advertisements on social networking sites as relevant to their interest and they are concerned about their privacy for the products they search for on shopping websites, their surfing behavior and their personal and financial information. The results of ANOVA and post – hoc tests show that mean for all internet usage level groups is below 3 indicating all groups do not find these advertisements as relevant to their interests. Post hoc test show that difference is significant between '0-2 hours' and 'above 6 hours'.

Table 1: Attitude and perception towards advertisments on social networking sites

N= 304; df= 303; Test Value = 3; á = .05

	Items	Mean	S. D.	T	Sig. (2-tailed)
	Attitude	2.83	.698	-4.254	.000
Perception	Informativeness	3.24	.811	5.159	.000
	Credibility	2.90	.714	-2.289	.023
	Entertainment	2.86	.843	-2.77	.006
	Intrusiveness	2.52	.675	-12.38	.000
	Value	3.01	.809	.298	.766
	Relevance	2.65	.655	-9.063	.000

Table 2: Effect of internet usage on attitude and perception of consumers towards advertising on social networking sites

Variable	Test of Homogeneity of Variances		ANOVA	
	Levene Statistic	Sig.	F	Sig.
Informativeness	2.311	0.076	4.77	0.003
Credibility	3.577	0.014	3.452	0.017
Entertainment	2.015	0.112	10.83	.000
Intrusiveness	4.452	0.004	9.208	.000
Value	0.49	0.689	2.292	0.078
Relevance	5.003	0.002	2.878	0.036
Attitude	6.463	.000	7.828	.000

Table 3: Post hoc test

Variable	Descriptives				Multiple Comparisons		
	(I) Internet Usage Per Day	N	Mean	S.D.	(J) Internet Usage Per Day	M.D.(I-J)	Sig.
Informativeness	0-2 Hours	93	2.99	0.88	2-4 Hours	-0.301	0.051
					4-6 Hours	-0.362	0.079
					Above 6 Hours	-.434*	0.004
	2-4 Hours	84	3.29	0.665	4-6 Hours	-0.061	0.971
					Above 6 Hours	-0.133	0.647
	4-6 Hours	58	3.35	0.905	Above 6 Hours	-0.071	0.962
	Above 6 Hours	69	3.42	0.726	-		
Credibility	0-2 Hours	93	2.72	0.812	2-4 Hours	-.309*	0.024
					4-6 Hours	-0.285	0.131
					Above 6 Hours	-0.227	0.179
	2-4 Hours	84	3.02	0.613	4-6 Hours	0.024	0.997
					Above 6 Hours	0.082	0.842
	4-6 Hours	58	3	0.755	Above 6 Hours	0.058	0.965
	Above 6 Hours	69	2.94	0.607	-		
	0-2 Hours	93	2.5	0.736	2-4 Hours	-.384*	0.013
					4-6 Hours	-.536*	0
					Above 6 Hours	-.682*	0

Contd...

Entertainment	2-4 Hours	84	2.89	0.9	4-6 Hours	-0.152	0.703
					Above 6 Hours	-0.298	0.138
	4-6 Hours	58	3.04	0.768	Above 6 Hours	-0.146	0.723
	Above 6 Hours	69	3.18	0.802	-		
Intrusiveness	0-2 Hours	93	2.23	0.631	2-4 Hours	-.374*	0
					4-6 Hours	-.418*	0.008
					Above 6 Hours	-.471*	0
	2-4 Hours	84	2.6	0.593	4-6 Hours	-0.043	0.986
					Above 6 Hours	-0.096	0.721
	4-6 Hours	58	2.64	0.841	Above 6 Hours	-0.053	0.976
	Above 6 Hours	69	2.7	0.545	-		
Value	0-2 Hours	93	2.83	0.811	2-4 Hours	-0.272	0.102
					4-6 Hours	-0.264	0.26
					Above 6 Hours	-0.246	0.204
	2-4 Hours	84	3.1	0.765	4-6 Hours	0.008	1
					Above 6 Hours	0.026	0.997
	4-6 Hours	58	3.09	0.886	Above 6 Hours	0.018	0.999
	Above 6 Hours	69	3.07	0.765	-		
Relevance	0-2 Hours	92	2.54	0.75	2-4 Hours	-0.06	0.949
					4-6 Hours	-0.181	0.312
					Above 6 Hours	-.286*	0.024
	2-4 Hours	82	2.6	0.707	4-6 Hours	-0.122	0.652
					Above 6 Hours	-0.226	0.11
	4-6 Hours	55	2.72	0.517	Above 6 Hours	-0.105	0.678
	Above 6 Hours	66	2.83	0.503	-		
Attitude	0-2 Hours	93	2.55	0.764	2-4 Hours	-.329*	0.013
					4-6 Hours	-.369*	0.02
					Above 6 Hours	-.482*	0
	2-4 Hours	82	2.88	0.646	4-6 Hours	-0.039	0.987
					Above 6 Hours	-0.153	0.36
	4-6 Hours	58	2.92	0.738	Above 6 Hours	-0.113	0.754
	Above 6 Hours	68	3.04	0.499	-		

Table 4: Hypotheses

Sl.No.	Hypotheses	Status
H_{1a}	Consumers have positive attitude towards advertisements on social networking sites'	Rejected
H_{1b}	Consumers find advertisements on social networking sites as informative	Failed to Reject
H_{1c}	Consumers find advertisements on social networking sites as credible	Rejected
H_{1d}	Consumers find advertisements on social networking sites as entertaining	Rejected
H_{1e}	Consumers find advertisements on social networking sites as intrusive	Failed to Reject
H_{1f}	Consumers find advertisements on social networking sites as valuable	Rejected
H_{1g}	Consumers find advertisements on social networking sites as relevant to their interest	Rejected
H_{2a}	There is a significant difference between internet usage groups in terms of their attitudes towards and perception about social media advertising	Failed to Reject

Conclusion and Suggestions

The findings of this study show that though the advertising on social media is increasing at a great pace, consumers still have an unfavorable attitude towards and perception about this new kind of advertising which the advertisers need to take care of.

As the entertainment and information provided by advertising on social media contributes to consumers' attitudes toward this advertising, it can be suggested that advertisers should invest in creating advertisements that consumers enjoy viewing. This is not to suggest that advertisements on social media websites should include more features that have been found to be entertaining in the mass media (e.g., attractive visuals, humor), but rather features that have been found to be entertaining on the Internet particularly social media. Such features include those distinctive with the social media such as interactive product demonstrations and interactive discussions with the consumers after the advertisement. They should also keep focussed on providing trustworthy and relevant information to the audience.

To establish credibility of advertising on social media, it is suggested that advertisers should consider about providing information about strategies such as money-back guarantees, product return policies, improved customer services, and affiliations with credible organizations for a ''seal of approval''. One reason for low credibility of advertisements on social media might be that there is no censorship of these advertisements. Thus, there is a need of increased government regulation so as to create trustworthiness of these advertisements.

The advertisers should also avoid the most intrusive forms of ads like pop ups, hovering ads, rotating ads and long ads before videos which do not provide the option of skipping the ads. All these forms create a negative attitude towards these and thus lead to ad avoidance and using pop up blockers.

The results confirm that the consumers are very much concerned about their browsing details, personal information and financial information being passed on to the advertisers for advertising purpose. They do not even want the information of the product they search on shopping websites to be passed on. This clearly implies the need for government regulation in this regard.

Even though advertisers on social media are able to track the browsing details of the internet users, the findings reveal that still the respondents do not find these ads as relevant to their interests. This indicates that the technique of tracking the browsing history of internet users is not sufficient for advertisers to make the ads relevant and customer oriented thus, requiring new ways to make the advertisement content more relevant as it is easier and more effective for customers to view the advertising on social media which they really want to view and which can help them making easier purchase decision. It can save time and increase the customer's satisfaction.

Quite interestingly, the study showed that the respondents agreed that advertisements on social media websites are informative and they affect their buying decisions. This might imply that if advertisers are able to make advertisement content that the social media users find compelling and relevant to their interests, there are greater possibilities of positively affecting purchase behaviour and even resulting in sales conversion. This is not to say these advertisements would always result in a sale, but could positively influence the purchase behaviour of consumers. Ultimately, the continued success of social websites as a medium of advertising will depend upon finding the best ways to take advantage of the unique capabilities of this medium.

Social media advertising is still at its nascent stage as compared to advertising on other mediums. Surely it is increasing at an alarming stage because of increasing number of internet users, more particularly social media users. However, it cannot be used in isolation of other media. Advertisers need to find the right mix of different media of advertising. It should also be noted that the growth of India's Internet usage in future is expected to be largely driven by rural users

(IAMAI, 2016). Advertisers should grab the first mover advantage to develop content in vernacular language for social media users in rural areas.

REFERENCES

Adnan, M., & Khan, Z. (2010). Perception of swedish consumers towards tapal tea. School of Sustainable Development of Society and Technology,Mälardalen University, Västerås, Sweden.

Alcheva, V., Cai, Y., & Zhao, L. (2009). Cause related marketing: how does a cause-related marketing strategy shape consumer perception, attitude and behaviour? School of Health and Society, Kristianstad University College, Sweden.

Amen, U. (2010). Consumer attitude towards mobile advertising. *Journal of Contemporary Research in Business, 2* (3), 75.

Azizul Yadi Yaakop, Marhana Mohamed Anuar, Khatijah Omar & Alphonsus Liaw Kuok Liung. (2012). Consumers' perceptions and attitudes towards advertising on Facebook in Malaysia. World Business and Economics Research Conference. Auckland, New Zealand.

Barnes, S. B., & Hair, N. (n.d.). (2003). From banners to YouTube: Using the rear-view mirror to look atthe future of Internet advertising. Unpublished manuscript.

Bhattacharya, S., Scott, E., Arthur, M. (2006). The phoenix rises from the ashes: Advertising and content monetization in a digital world. *Journal of Digital Asset Management, 2* (6), 269-278.

Bond, Ferraro, Luxton & Sands. (2012). Social media advertising: an investigation of consumer perceptions, attitudes and preference of engagement. *ANZMAC*, (pp. 1-9).

Brackett, L.K. & Carr. B.N. (2001). Cyberspace advertising vs. other media: consumer vs. mature student attitude. *Journal of Advertising Research, 41* (5), 23-33.

Calisir, F. (2003). Web advertising vs other media: Young consumers' view. (Internet Research: Electronic Networking Applications and Policy) Retrieved June 8, 2007, from Emerald database.

Chandra, B., Goswami, S. & Chouhan, V. (2012). Investigating attitude towards online advetising on social media- an empirical study. *Management Insight, 8* (1).

Chauhan, A. K. (2016). Research Analytics- A Practicle Approach to Data Analysis. New Delhi: Dreamtech Press.

Cho, C. and Cheon, H. J. (2004). Why do people avoid advertising on the internet? *Journal of Advertising, 33* (4), 89-97.

Cho, H., & Jialin, S. K. (2008). Influence of gender on internet commerce: an explorative study in Singapore. *Journal of Internet Commerce*, 7(1), 95-119.

Annexure-1

Variable		Items	Developed by	x*	α
		Attitude			
Attitude	1.	I visit a product website after being exposed to an ad on social media website	(Yaakop, Anuar, Omar & Liung, 2012) [Modified]	.512	.618
	2.	I purchase products after seeing an ad on social networking site	(Yaakop, Anuar, Omar & Liung, 2012)[Modified]	.602	
	3.	I prefer the brands which are advertised on social media over the brands which are not advertised on social media	Self	.495	
	4.	I ignore ads on social media websites*	(Internet and Mobile Association of India, 2013)[Modified]	.491	.618
	5.	I use ad blocking software in my web browser *	Self	.-392	
	6.	I tell my friends about the ads I see on social networking sites	Self	.544	
	7.	I share advertisement videos on social media on my homepage of a social networking site	Self	.658	
		Practical			
Informativeness	1.	I think advertising on social media is informative	(Internet and Mobile Association of India, 2013)[Modified]	.666	0.864
	2.	I think information provided by ads on social media influences my purchase decision	(Internet and Mobile Association of India, 2013) [Modified]	.724	
	3.	Information provided by ads on social media is sufficient for me to make my purchase decision	Self	.619	
	4.	Social media advertising is a valuable source of information about the latest fashion	(Yaakop, Anuar, Omar & Liung, 2012) [Modified]	.699	

Contd...

	5. Ads on social media helps me to keep up to date information about products / services available in the market	(Yaakop, Anuar, Omar & Liung, 2012)[Modified]	.717	
Credibility	1. I feel I can trust ads on social media websites	(Schlosser, Shavitt, & Kanfer, 1999) [Modified]	.415	0.781
	2. I feel confident using information I see in an ad on social media to make a purchase decision	(Schlosser, Shavitt, & Kanfer, 1999) [Modified]	.624	
	3. I think many products do not perform as claimed in the social media advertisements*	Self	.735	
	4. I have felt misled by social media advertisements*	(Schlosser, Shavitt, & Kanfer, 1999) [Modified]	.592	
Entertainment	1. I feel ads on social media websites are interesting and entertaining	(Internet and Mobile Association of India, 2013) [Modified]	630	0.831
	2. I enjoy viewing ads on social media websites	Self	.760	
	3. Ads on social media websites are even more enjoyable than the other content on the website	Self	.657	
	4. I view ads on social networking sites even if they distract me from my main work	Self	.598	
Intrusiveness	1. I think social media ads are intrusive in my work*	Self	.458	0.753
	2. Ads on social media distract me from the current webpage *	(Internet and Mobile Association of India, 2013) [Modified]	.596	
	3. There are too many ads on social media*	(Chandra, B., Goswami, S. & Chouhan, V., 2012) [Modified]	.550	
	4. Ads on social media are more of irritant than helpful*	(Internet and Mobile Association of India, 2013)[Modified]	.603	
	5. I am forced to see the advertisements every time I log in to any social networking site*	(Yaakop, Anuar, Omar & Liung, 2012)[Modified]	.390	

Contd...

Value	1. Ads on social media often help me find the right product I am searching for	(Internet and Mobile Association of India, 2013) [Modified]	.681	0.759
	2. Ads on social media help me in purchasing all kinds of products and services	Self	.638	
	3. Ads on social networking sites tell me which brands have the features in a product or service I am looking for	(Yaakop, Anuar, Omar & Liung, 2012)[Modified]	.732	
	4. Ads on social networking sites save my time to search information for the products elsewhere	Self	.671	
	5. Advertising on social networking sites results in lower price of products/ services	(Chandra, B., Goswami, S. & Chouhan, V., 2012) [Modified]	.340	
	6. Social media advertising distorts the values of our youth and children*	(Yaakop, Anuar, Omar & Liung, 2012)[Modified]	.079	(.839)
Relevance	1. Usually, I find that ads on social networking sites suit my interests	Self	.434	0.57
	2. The products that I search for on other websites usually appear on my page of social networking sites	Self	.255	
	3. I want the products that I search for on shopping websites to come on my page of social networking sites	Self	.520	
	4. I want my surfing information (the websites I visit, the product I search for, the advertisements I click on, etc.) to be passed on by social networking sites to advertisers to be used for advertising purposes	Self	.485	
	5. I want my personal information (like name, mobile number, gender, age, relationship status, place of residence, pictures, etc.) to be passed on by social networking sites to advertisers to be used for advertising purposes	Self	.285	
	6. I am concerned about my financial information to be passed on by social networking sites to advertisers to be used for advertising purposes*	Self	.043	

a = alpha

Note: Items with asterisk (*) are negatively and reversely coded.

One item from 'Attitude', i.e. 'I use ad blocking software in my web browser' (Item total correlation = .-392) and one item from 'Value', i.e., 'Social media advertising distorts the values of our youth and children' (Item total correlation = .079) were removed after which alpha for 'Attitude' increased from .618 to .840 and for 'Value', it increased from .759 to .839.

Annexure 2

Demographic profile of the respondents

Dimensions	Categories	Frequency	Percent
Gender	Male	162	53.3
	Female	142	46.7
Age	Under 18	14	4.6
	18- 30	190	62.5
	30- 45	66	21.7
	Above 45	34	11.2
Education *	Undergraduate	147	48.4
	Post graduate	104	34.2
	M. Phil/ Ph.d/ other higher education	53	17.4
Occupation	Student	80	26.3
	Salaried person	164	53.9
	Self employed	40	13.2
	Others**	20	6.6
Income	No income	88	28.9
	0- 50000	96	31.6
	50000- 100000	96	31.6
	above 100000	24	7.9
Internet Usage	0-2 hours	93	30.6
	2-4 hours	84	27.6
	4-6 hours	58	19.1
	above 6 hours	69	22.7

*One category, i.e., 'graduate' was removed as it did not have any respondent.

**The category 'others' include 11 housewives, 1 unemployed and 8 retired persons.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Identifying Traits of Creative Executives and Global Best Workings on their Sustenance

SHAZEED AHMED

Abstract: *In an environment marked by globalised competition, creativity has been identified as a major contributor for the overall expansion and growth of any organization. This research was an exploratory study on 521 corporate executives working at different levels of organizational hierarchy. An instrument (questionnaire) with 26 (statements) items was used to record attitudinal data through a five point rating scale and factor analysis has been administered for data processing. As a second objective, the paper makes an attempt to study the best workings on creativity nurturing practices of selected 40 most innovative global companies through content analysis. The findings of the study reveal that creativity executives are flexible and freedom loving, have an unusual personality, possess confidence with clarity, are dedicated with sincerity, novel ideator, simple cum open minded, self motivated, emotionally intelligent and domain expert cum learner. Among the creativity nurturing practices of the selected global companies, the most significant ones are the existence of a culture of creativity, flexible environment, a learning organization, an open communication system with trust, transformational leadership cum mentoring and team work.*

Keywords: Creativity, Sustainability, Policies, Nurture, Reciprocal

Introduction

Creativity is the art of doing anything in an innovative and novel way. It originates in the intellectual brain and is a consequence of accumulated original thinking. Scholars have a notion that the virtue of creativity is formed at the seminal age of a person, which is embedded by the environment created at childhood. Human beings transform through a method of sequential development in their journey of life (Cooper, 2008). As such people are not torpid and they hardly shy away, if they find that their changes in behavior yield positive outcomes. Today in a global environment characterized by fast changes, creativity is essential for the sustenance of any organization. This is because of the phenomenon of creativity enables employees to be agile, intuitive and skillful. Several statistical facts prove

Dr. Shazeed Ahmed is Assistant Professor, Assam Institute of Management (A Govt. of Assam Society and affiliated to Assam Science and Technology University) Guwahati, Assam.

the importance of creativity in organizations. As per 2010 survey conducted by IBM on 1500 CEOs of 60 countries, spread across industries worldwide, creativity has been identified to be the most decisive factor for the future success of businesses. According to Keeken (2015) companies that promote creativity have the chance to perform better than their peers by 3.5 times in matters of growth of revenue and by a factor of 1.5 in market share. Further companies that promote creativity, earn accolade as having the best workplace by around 69 percent. Moreover according to Adobe (2012), a substantial 80 percent of US and UK residents feel to have stress on being productive rather than being creative at work. The CEOs polled in 2010 by Fast Company, 60 percent agreed that creativity was a significant skill, followed by the sense of integrity (52 percent) and global thinking (35 percent) for executing the profile of a successful leader. In a global environment characterized by differential competition, creativity of employees may be considered to be a key factor for the sustenance of any organisation.

Objectives of the Study

The major objectives are:

- to identify the traits of executives who are creative
- to explore the best practices in organizations that nur

Literature Review

Creativity Traits

Among the key creativity traits of individuals, Holzmann and Golan (2016) identified openness, transparent, learning skills, freedom loving and continuous learning; Reisman (2013) identified flexibility, knowledge transfer, adaptability, analytical thinking and communication skills; Kohl and Jensen (2011) identified fluency, originality, curiosity, tolerance of ambiguity, competitiveness, high achiever and self confidence; Ivcevic and Mayer (2006) identified self expression, self regulation, openness to experience, divergent thinking and evaluation ability; John and Srivastava (1999) identified openness, conscientiousness, extraversion, agreeableness and neuroticism; Rastogi (1996) identified curiosity, openness, tolerance of ambiguity, intuition, autonomy, motivation, imagination, flexibility, originality and focused; Amabile (1983) identified self motivation, broad interests, intuition, aesthetically sensitivity, toleration of ambiguity, risk taking, perseverance and self-confidence; Martin (1978) identified independence, unconventional, highly perceptive, flexibility, industriousness and aesthetically oriented; Guilford (1975) identified inventiveness, flexibility, autonomy, fluency, forbearance of ambiguity, extent of interest, sensitivity, inquisitiveness, reflection, attentiveness, persistence and commitment; Khatena and Torrance (1973) identified inventiveness, individuality, independence, enthusiasm, determination, industriousness, self-confidence and self acceptance; and Landry (1969) identified objectivity, individuality, sensitivity, openness, depth knowledge, tolerance of ambiguity, independent, inner autonomy and realistic.

Global Workings On Creativity

Among the key practices for nurturing creativity, Russel (2015) identified team work, trust, flexibility, learning organisation, ability to take risk, freedom and support from leadership; Sharma and Jain (2014) identified culture of creativity, inspiring leaders and good reward system; Bromander (2014) identified work culture, scope of diversity, inclusive environment, leaders support, freedom, flexibility and a structure which is flat; Girdauskiene (2013) identified open culture, transformational leaders, mentoring, low formalization, autonomy, informal communication and diversity; Hamzah, Maidi and Rahman (2011) identified team based work, open communication, learning organisation, freedom and reward; Klijn and Tomic (2009) identified diversity, open communication, recognition by rewards and trust with confidence; Loewenberger (2009) identified freedom to voice ideas, openness to experience and support from management; Chang and Chiang (2007) identified team climate, culture of creativity, experience sharing and diversity; Khandwalla and Mehta (2004) identified innovation friendly environment, structure of organization and support from top management; Martins and Terblanche (2003) identified team work, shared values, culture and open communication mechanism; Martins and Martins (2002) identified trust, friendly work environment, support from management and customer orientation; Amabile (1998) identified diversity, common goal, teamwork, inspiring cum encouraging leadership and autonomy with responsibility; and Zien and Buckler (1997) identified management support for innovative culture, team work, flexible structures and learning organization.

From the above reviewed work, prominent creativity traits and creativity nurturing conditions have been identified. These have been taken as input for the twin objectives of identifying prominent creativity traits and making a comparative study of the global working on the creativity nurturing practices of the selected companies respectively.

Methodology For The First Objective

The research design for the first objective is exploratory in nature. Altogether 26 attitudinal statements related to traits of creative executives have been developed. The statements have been formulated on the basis of literature reviewed (as above), information gathered from company executives through focus group interview, books review, information gathered from the website of different organisation websites and personal insight. The statements are as follows.

Statement 1: Creative executives are emotionally intelligent; *Statement 2:* Creative executives take pleasure by doing unique feats; *Statement 3:* Creative executives have interest in problem solving; *Statement 4:* Creative executives are quite accommodative; *Statement 5:* Creative executives are quite open-minded; *Statement 6:* Creative executives have originality in thinking; *Statement 7:* Creative executives are imaginative people; *Statement 8:* Creative people often see things in unusual ways; *Statement 9:* Creative executives are not affected by group norms; *Statement 10:* Creative executives can tolerate ambiguity; *Statement 11:* Creative executives have depth knowledge in field; *Statement 12:* Creative executives are unaffected by organisation politics; *Statement 13:* Creative executives are often stylish in outlook; *Statement 14:* Creative executives are sensitive people by nature; *Statement 15:* Creative executives have a sense of autonomy; *Statement 16:* Creative executives are independent in judgment; *Statement 17:* Creative executives can reconcile the actual opposites; *Statement 18:* Creative executives are devoid of any ego; *Statement 19:* Creative executives have their own environment; *Statement 20:* Creative executives are persistently goal oriented; *Statement 21:* Creative executives are social by nature; *Statement 22:* Creative executives are eccentric by nature; *Statement 23:* Creative executives are focused in their work; *Statement 24:* Creative executives have a level of self motivation; *Statement 25:* Creative executives have a sense of curiosity; and *Statement 26:* Creative executives have a sense of visualization.

A structured questionnaire was used with the above statements. Each attitudinal statement has been measured by using a 5 point rating scale, where *highly agree* is denoted by 5, *agree* is denoted by 4, *neither agree nor disagree* is denoted by 3, *disagree* is denoted by 2 and *strongly disagree* is denoted by 1. To establish the reliability of the scale, Cronbach's Alpha is being administered and a score of 0.810 has been derived. This is quite acceptable as the score is greater than 0.60 (Nunnally, 1976). These statements have been administered on corporate executive across the country of India. They have been selected from different industries (that includes 211 of service industry, 67 of manufacturing industry, 65 of processing industry, 62 of retail industry, 56 of IT industry, 40 of educational institutions and 20 of others) with varied levels of hierarchy (comprising 41 senior level, 349 middle level and 131 lower level). Consequently a total sample size of 521 executives were taken for the study, though the minimum size of sample required for conducting marketing research related to problem recognition study is 500 (Malhotra and Dash, 2016). Further for conducting behavioural studies and on the basis of affordability, a sample size of 200 is common (Sudman, 1976). The final questionnaire is administered online (using Google Form) and the samples have been taken from India. For data processing has been done through the application of factor analysis.

Analysis of the First Objective

Based upon the ratings on the statements of the attributes of creative executives, factor analysis is applied. The varying traits have been recognized as factors. The results extracted through factor analysis are shown in Factor Matrix in Table 1. The Final Statistics Table 2 and Rotated Factor Matrix Table 3 reflect the particulars in detail. Further Table 2 reflects the communality of the exhaustive 26 variables and the factors with Eigen value of 1 or more than 1. Based upon analysis (of Table 2) it has been noticed that there are a total of nine factors with 1 or more than 1 as Eigen value. The last column in the final statistics Table 2 reflects cumulative percentage indicating that a total of 76.86 percent of the total variance is explained by the 9 factors combined together. Consequently a total of 9 factors have been derived out of a total of 26 initial factors. In the process of reducing the factors, a total of 23 percent of the information content has been lost.

Table 1: Factor matrix

Variables	Factor								
	1	2	3	4	5	6	7	8	9
VAR00001	.461	.248	-.052	-.222	-.142	.479	.042	.454	-.010
VAR00002	.491	.083	-.244	-.068	.005	-.343	.543	-.035	.296
VAR00003	.477	-.589	.016	-.057	.438	.048	.094	.185	.207
VAR00004	.626	-.169	-.163	.245	-.115	-.120	.084	-.041	-.422
VAR00005	.596	-.132	.030	.273	-.121	-.162	-.327	-.210	.334
VAR00006	.472	.227	-.139	.401	.222	-.412	-.240	-.024	.095
VAR00007	.425	.187	-.230	.303	.569	.073	.025	.173	-.002
VAR00008	.427	-.098	.165	-.347	.417	-.097	.310	-.227	-.226
VAR00009	.654	-.146	.287	-.109	.192	-.257	-.006	.293	-.098
VAR00010	.555	.120	.456	.331	.043	.055	.194	.041	-.330
VAR00011	.562	.156	.269	.241	.076	.191	.221	-.296	.352
VAR00012	.711	-.176	-.156	-.075	-.077	.181	.091	.251	.064
VAR00013	.631	-.375	.057	-.036	-.214	-.129	-.077	.126	-.170
VAR00014	.610	-.171	.245	-.216	-.453	.211	.200	-.015	-.034

Contd...

Contd...

VAR00015	.747	.016	-.297	.018	-.305	.031	.181	-.195	-.116
VAR00016	.474	-.093	-.630	-.055	-.200	.057	-.206	.089	-.057
VAR00017	.499	.163	.312	.520	-.099	-.122	-.234	.144	-.226
VAR00018	.418	-.033	.450	-.190	-.269	-.238	-.308	.261	.375
VAR00019	.403	-.580	-.348	.095	-.095	.178	-.092	-.195	.166
VAR00020	.277	.615	-.174	-.342	-.061	-.385	.115	-.002	-.085
VAR00021	.682	.046	-.061	-.098	.102	.166	-.132	-.497	-.052
VAR00022	.496	.061	.370	-.465	.247	-.041	-.061	-.047	.129
VAR00023	.454	.627	-.020	-.350	-.184	-.090	-.280	-.183	-.038
VAR00024	.326	.152	.127	-.158	.337	.548	-.420	-.144	-.117
VAR00025	.002	.399	.312	.413	-.251	.335	.324	-.038	.200
VAR00026	.371	.553	-.442	.084	.184	.188	.031	.274	.166

Extraction Method: Principal Component Analysis, 9 components extracted.

Table 2: Final statistics

Variable	Communality	Factor	Eigen value	% of Variance	Cumulative %
Factor 1	.783	1	3.710	14.271	14.271
Factor 2	.814	2	2.547	9.796	24.067
Factor 3	.858	3	2.364	9.093	33.160
Factor 4	.722	4	2.282	8.777	41.937
Factor 5	.752	5	2.102	8.086	50.024
Factor 6	.741	6	2.004	7.709	57.733
Factor 7	.719	7	1.766	6.794	64.526
Factor 8	.721	8	1.735	6.673	71.199
Factor 9	.742	9	1.471	5.658	76.857
Factor 10	.794				
Factor 11	.773				
Factor 12	.680				
Factor 13	.657				
Factor 14	.799				
Factor 15	.825				

Contd...

Contd...

Factor 16	.730
Factor 17	.795
Factor 18	.847
Factor 19	.743
Factor 20	.775
Factor 21	.785
Factor 22	.688
Factor 23	.878
Factor 24	.795
Factor 25	.749
Factor 26	.818

Table 3: Rotated factor matrix

Variable	Component								
	1	2	3	4	5	6	7	8	9
VAR00001	.140	.038	.085	.153	.085	.094	**.822**	.104	.167
VAR00002	.337	.384	-.066	.239	.269	.070	.078	.248	**.689**
VAR00003	.311	.552	-3.23	-.542	.260	.257	.144	-.092	-.024
VAR00004	.558	.153	.592	.056	.095	-.105	.036	-.062	-.092
VAR00005	.521	-.019	.183	.011	.221	**.536**	-.231	.220	.089
VAR00006	.201	-.006	.327	.213	**.636**	.262	-.268	.027	-.048
VAR00007	.087	.211	.195	-.061	**.762**	-.106	.139	.062	.106
VAR00008	.095	**.821**	.128	.096	.008	-.104	-.025	-.001	.041
VAR00009	.112	.512	.450	-.008	.159	.426	.190	-.136	-.063
VAR00010	.015	.278	**.754**	.008	.059	.030	.128	.350	.070
VAR00011	.224	.281	.132	.018	.200	.198	-.001	**.734**	.088
VAR00012	.530	.238	.167	-.056	.158	.207	**.690**	.047	-.039
VAR00013	.507	.221	.423	-.063	-.111	.319	.156	-.160	-.063
VAR00014	.444	.261	.255	.073	-.416	.245	.393	.274	-.019
VAR00015	**.742**	.159	.260	.304	.041	-.039	.190	.196	-.102
VAR00016	**.702**	-.136	-.008	.169	.224	.007	.262	-.267	.017

Contd...

Contd...

VAR00017	.076	-.129	**.778**	.065	.217	.278	-.012	.160	.113
VAR00018	.027	.073	.133	.109	-.114	**.880**	.146	.042	-.024
VAR00019	**.772**	.045	-.094	-.352	.028	.082	-.029	-.009	.060
VAR00020	-.023	.183	.020	**.806**	.171	.023	.110	-.058	-.215
VAR00021	.562	.380	.113	.263	.113	.043	-.078	.231	.410
VAR00022	-.004	**.627**	.007	.205	.003	.424	.130	.066	.225
VAR00023	.146	.074	.055	**.836**	.061	.236	.116	.072	.266
VAR00024	.075	.210	.031	.051	.154	.027	.194	.071	**.821**
VAR00025	-.195	-.253	.162	.022	-.028	-.067	.169	**.764**	-.048
VAR00026	.119	-.082	-.067	.332	**.671**	-.077	.451	.148	.028

Extraction Method: Principal Component Analysis, Rotation Method: Varimax with Kaiser Normalization, Rotation converged in 11 iterations.

As a second step the 9 extracted factors were interpreted on what they signify. As per the rotated components with 11 iterations (being displayed in Table 3), it is reflected that; variable no 15, 16 and 19 have high loadings of 0.742, 0.702 and 0.772 for factor 1. These three factors combined explain for 14.271 percent of variance. As such factor 1 (being displayed in the factor column in Table no 3) is a combination of these three variables by origin. Consequently with a view to capture the core of variable no 15, 16 and 19 in original form it is being labeled as '*flexible and freedom loving*'. Similarly factor 2 is a combination of variable 08 and 22 with loadings of 0.821 and 0.627 that are quite high. They explain for 09.796 percent of variance and have been labeled as '*unusual personality*'. Factor 3 is a combination of variable 10 and 17 with loadings of 0.754 and 0.778 that are quite high. They explain for 9.093 percent of variance and have been labeled as '*confident with clarity*'. Factor 4 is a combination of variable 20 and 23 with loadings of 0.806 and 0.836 that are quite high. They explain for 8.777 percent of variance and have been labeled as '*sincere and dedicated*'. Factor 5 is a combination of variable 6, 7 and 26 with loadings of 0.636, 0.762 and 0.671 that are quite high. They explain for 8.086 percent of variance and have been labeled as '*novel ideator*'. Factor 6 is a combination of variable 5 and 18 with loadings of 0.536 and 0.880 that are quite high. They explain for 7.709 percent of variance and have been labeled as '*simple and open minded*'. Factor 7 is a combination of variable 1 and 12 with loadings of 0.822 and 0.690 that are quite high. They explain for 6.794 percent of variance and have been labeled as '*emotionally intelligent*'. Factor 8 is a combination of variable 11 and 25 with loadings of 0.734 and 0.764 that are quite high. They explain for 6.673 percent of variance and have been labeled as '*domain expert cum learner*'. Factor 9 is a combination of variable 2 and 24 with loadings of 0.689 and

0.821 that are quite high. They explain for 5.658 percent of variance and have been labeled as '*self motivated*'.

Methodology for the Second Objective

The research design for the second objective is descriptive in nature. As part of the second objective, total of 40 global companies have been selected, from the *Forbes Eighth Annual List of The World's 100 Most Innovative Companies (May 28, 2018 publication available online)*. The comparison of the companies has been done by using 10 major creativity nurturing practices identified from scholarly papers reviewed. Data on the various creativity fostering practices of the selected companies has been collected from respective organisation websites on the cultural values, commentaries of senior company executives retrieved from online blogs and respective Annual Reports of the companies through *Content Analysis* (details given in the *end source notes*). For comparative study, a checklist in the form of matrix (with the selected 10 dimensions for comparison on the column side and the respective 40 companies on the rows) has been prepared. For analysis of data *Counts* and *Percentages* has been used.

Analysis of the Second Objective

As part of the secondly objective, Table no 4 titled '*Comparative study checklist of the selected companies*' has been prepared. The list of companies is arranged in the alphabetical order. Comparison of the companies has been done by using 10 dimensions (details of formulation given in the methodology part). The dimensions are coded as CUL: culture of creativity, DIV: diversity and inclusion, FLE: flexible environment, FRE: freedom in workplace, LRN: learning organisation, OPN: open communication and trust, OUT: outreach program, REC: recognition and rewards, TLM: transformational leadership cum mentoring and TEM: Team work and mentoring. The symbol "Ï%" is used to denote whether each of the particular practice exists in each of the respective company under consideration. The total counts for each dimensions has been calculated as shown below.

Table 1.4: Comparative study checklist of the selected companies

Sl	Company/country	CUL	DIV	FLE	FRE	LRN	OPN	OUT	REC	TLM	TEM
1	Adobe/ USA	X		X	X	X	X	X	X	X	X
2	Allergan Plc/Ireland	X	X	X	X		X		X		
3	Amazon[3] / USA	X		X	X	X			X		X
4	Amore Pacific[4] / South Korea	X	X	X	X	X				X	X
5	ASML-Holding[5]/ Netherlands			X			X		X	X	X

Contd...

Contd...

6	Assa Abhoy[6] / Sweden	X			X		X			X	X
7	Bharti Airtel[7] / India		X	X	X	X	X		X		
8	Celltrion[8] / SouthKorea	X		X		X		X		X	X
9	Coca Cola[9] / USA	X	X	X	X		X		X	X	X
10	Compass[10] / UK				X	X	X		X	X	X
11	CP All[11] / Thiland	X	X	X		X	X				X
12	Edward Lifesciences/ USA	X	X	X		X	X	X			
13	Essilor[13] / France	X	X	X	X	X	X	X	X	X	X
14	Experian[14] / Ireland	X				X	X			X	X
15	Fast Retailing[15] / Japan		X	X	X	X		X	X	X	X
16	General Mills[16] / USA	X	X			X	X	X	X	X	X
17	Hikvision[17] / China	X	X		X	X	X			X	X
18	HLL[18] / India	X	X	X	X				X	X	X
19	IHS Markit[19] / UK		X	X		X			X	X	X
20	Inditex[20] / Spain	X	X	X		X	X	X		X	X
21	Keyence[21] / Japan	X	X	X	X	X		X	X		
22	Kone[22] / Finland	X		X		X	X			X	X
23	Larsen &Toubro/India	X	X	X	X	X	X	X	X		
24	LG Household[24] / South Korea	X	X			X	X		X	X	X
25	L'OréalGroup[25] / France	X	X	X		X		X		X	X
26	Luxottica[26] / Italy	X			X	X	X		X		
27	Marriot[27] / USA	X	X	X				X	X	X	X
28	Maruti Suzuki[28] / India	X	X			X	X		X	X	X
29	Naver[29] / South Korea	X	X	X		X	X	X	X		
30	Nidec[30]/ Japan	X	X	X	X	X	X	X	X		
31	NorilskNickel/Russia			X		X	X		X	X	X
32	NXPSemiconductors/ Netherlands			X		X	X	X			
33	Reckitt Benckiser/UK	X	X		X	X	X	X	X	X	X
34	SiriusXM[34] / USA	X	X	X	X		X			X	X

Contd...

Contd...

35	Sodexo[35] / France	X	X	X	X	X	X	X	X	X	X
36	SunPharma[36] / India	X	X	X	X	X	X		X	X	X
37	Tencent[37] / China	X		X		X	X	X	X	X	X
38	Tesla[38] / USA	X		X	X	X			X		
39	UPS[39] / USA	X	X	X		X			X	X	X
40	Waste Connection/ Canada	X	X		X	X		X			X
	Total Counts	33	26	29	22	32	28	17	27	27	30
	Percentage	82.5	65	72.5	55	80	70	42.5	67.5	67.5	75

From the findings of the Table no 4, a Line Diagram is drawn Figure 1). It has been found that among the prominent creativity nurturing practices, the significant ones are '*a culture of creativity*' practiced by 82.50 percent of the companies, '*flexible environment*' practiced by 67.50 percent of the companies, '*learning organisation*' practiced by 80.00 percent of the companies, '*open communication with trust*' practiced by 70.00 percent of the companies, '*transformational leadership cum mentoring*' practiced by 67.50 percent of the companies, '*team work*' practiced by 75.00 percent of the companies and '*recognition and rewards*' practiced by 72.50 percent of the companies. Others practices include '*diversity and inclusion*' being practiced by 65.00 percent of the companies, '*freedom in workplace*' practiced by 55.00 percent of the companies and '*outreach program*' being practiced by 42.50 percent of the companies.

Managerial Implications

The study revealed that creative executives have an unusual personality who are confident with due clarity. They love a flexibility work environment coupled with a degree freedom. They are sincere with dedication, simple cum open minded, self motivated and are emotionally intelligent. Further they are novel ideators who are domain expert and have a fair sense of inquisitiveness to learn things. Further based on the study of the global best workings of the selected creative companies it has been found that creative organizations primarily focus on maintaining a culture of creativity. They provide a flexible work environment with open communication coupled with confidence and trust. Further these organizations have leaders who are enigmatic, provide mentoring and duly support team work. Further they encourage employees to take the initiatives without fear of failure that turns organisations into learning organizations. HR professionals can use the knowledge of the identified unique traits of creative executives during recruitment cum selection process as well as in identifying the traits among the existing working ones. Further findings of the best global workings on creativity nurturing practices can broaden the knowledge horizon for creating an environment where creative executives can work and sustain.

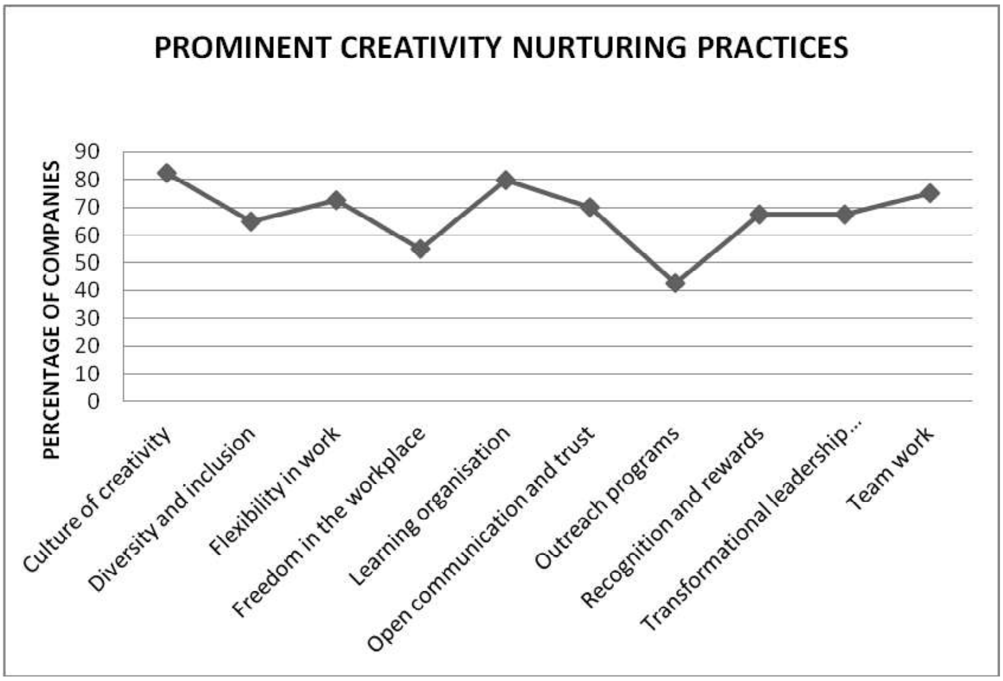

Figure1: Prominent Creativity Nutruing Practices

Limitations and Scope for Further Study

As the research work was undertaken from April 2018 to September 2018, there may be changes in the priority of the dimensions may vary with elapse of time, disparity in the nature of industry, variation in geographical location, pattern of population, organizational tactical advantage and political system of the country. Future research can be conducted by including additional companies in the array of chosen companies related to global workings on creativity, to make the study more comprehensive. Moreover efforts can be also made to develop a measurement scale for assessing the orientation of executives towards creativity.

REFERENCES

Amabile, T. M. (1998). A model of creativity and innovation on organizations, *Research in Organizational Behavior*, 10, pp. 123-67.

Bromander, J. (2014). Organizational factors that influence creativity - An empirical study of small advertising agencies, Bachelor Thesis Management Spring Semester, 14 June.

Chang, W. and Chiang, Z. (2007). A Study on How to Elevating Organizational Creativity of Design Organization. IASDR07 International Association of Societies of Design Research, The Hong Kong Ploytechnic University, 12th to 15th November.

Girdauskiene, L. (2013). The key factors for creativity implementation and knowledge creation in an organization: the structural approach. *Economics and Management*, 18(1), ISSN 2029-9338.

Hamzah, M., I., H., Maidi, F. and Rahman, S. (2011). Supporting and inhibiting factors of creativity, innovation and wisdom among teachers in a learning Organization. *World Applied Sciences Journal,* 15 (Innovation and Pedagogy for Lifelong Learning): pp. 56-62, ISSN 1818-4952, © IDOSI Publications.

Holzmann, V. and Golan, J. (2016). Leadership to creativity and management of innovation, the case of the innovation club in a production company, *American Journal of Industrial and Business Management*, 6, pp. 60-71.

John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), Handbook of personality: Theory and Research, 2, pp. 102–138, New York: Guilford Press.

Khandwalla, P.N., Mehta, K. (2004). Design of corporate creativity, *Vikalpa*, 29(1), pp. 13-28.

Khatena, J. and Torrance, E. P. (1973). Thinking creatively with sounds and words: Technical Manual (Research Ed.). Lexington, MA: Personnel Press.

Klijn, M. and Tomic, W. (2009). A review of creativity within organizations from a psychological perspective, *Journal of Management Development*, 29(4), pp. 322-343, q Emerald Group Publishing Limited, 0262-1711, DOI 10.1108/02621711011039141.

Loewenberger, P. A. (2009). Facilitating organisational creativity: Exploring the contribution of psychological, social and organizational factors. A thesis submitted for the degree of Doctor of Philosophy, University of Bedfordshire.

Malhotra, N., K. and Dash, S. (2016). Sample sizes used in marketing research studies- Table 11.2, pp-344, Marketing Research-An Applied Orientation, Pearson India Education Services Pvt. Ltd, Seventh Edition, ISBN 978-93-325-5569-3.

Martin, J., C. (1978). Creativity, a description of creative people, the creative process, self-actualization and creativity, Theses Digitization Project for John M. Pfau Library. California State University, San Bernardino CSUSB Scholar Works, http://scholarworks.lib.csusb.edu/etd-project/75.

Martins, E. & Martins, N. (2002). Organisational culture model to promote creativity and innovation. *Journal of Industrial Psychology*, 28 (4), pp. 58-65.

Martins, E. C. and Terblanche, F. (2003). Building organizational culture that supports creativity and innovations, *European Journal of Innovation Management*, 6(1), pp. 64-74, DOI 10.1108/14601.60310456337.

Reisman, F. (2013). Creativity: Concepts, product, process, environment & technology, KIE Conference Books: Short Research Papers on Knowledge, Innovation and Enterprise International Conference on Knowledge, Innovation & Enterprise, ISBN 9781859242025.

Sharma, P. and Jain, C. (2014). Creativity at Work Place, *Research Conference on Innovative Business Strategies* held During March 28-29, at SIBM, Pune (India).

Zien, K. A. and Buckler, S. A. (1997). Dreams to market: crafting a culture of innovation, *Journal of Product Innovation Management*, 14(4), pp. 274-87.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Labour Welfare Measures of Selected Central Public Sector Units in Assam

JOYJIT SANYAL, AYEKPAM IBEMCHA CHANU

Abstract: Labour is the main factor which constitutes the material foundation of the society. They are the primary factor of production and hence, its role in any nation is of great importance. Be it in the case of Public or Private Sector enterprises, the welfare measures of labour, therefore, is an important area of discussion. The main objectives of the paper are to highlight the labour welfare measures of Central public sector units which are operating in Assam and measure the satisfaction level of labour welfare measures across the male – female employees and executive and non-executive employees. The paper which is both descriptive and empirical in nature is based on both primary and secondary data. The primary data was collected through interview schedule. A sample size of 359 employees of 6 Public sector units has been considered and Stratified Random Sampling technique has been adopted to select the sample units. Both descriptive statistics like percentage, mean, standard deviation, tabulation and inferential statistics like F-test and ANOVA have been used to analyse the data. The findings reveal that there is a significant difference in the opinions of both in the case of 'male and female employees' and 'executive and non-executive employees' with regards to their level of satisfaction in respect of various statutory and non statutory welfare measures availed by hem.

Key words: Labour, Welfare measures, Employers, Employee, Public Sector Units.

Introduction

In both classical and neo-classical theories of management, it is assumed that labours can produce more if they are well paid and well managed. Accordingly, the industrialists and employers believed that their only duty towards their employees and labours was to pay them adequate salaries and wages. However, with the introduction of the concept of human relation theory of management and human resource management, psychological researches have proved that workers/ labours and employees of an organisation require something more important than monetary benefit i.e. 'human treatment'. The 'human treatment'

Dr. Joyjit Sanyal is Assistant Professor, Department of Commerce, Assam University Diphu Campus and Dr. Ayekpam Ibemcha Chanu is Assistant Professor (Stage III), Department of Commerce, Assam University Diphu Campus, Assam.

given to employees plays a very important role in not only seeking their cooperation but also increasing their productivity level. (Maslow, 1972, Chouhan, 1995, Gupta & Joshi, Deepika, 2008, Dessler, 2009, Aswathapa, 2010, Amastrong, 2006). The Hawthorne Experiment has already proved it. It is necessary to secure the cooperation of labour or employees in order to increase the production and to earn higher profits. The cooperation of employees force is possible only when they are fully satisfied with their employer and the working conditions of the job. Labour or employees welfare activities benefit not only the workers but also the management in the form of greater industrial efficiency. Now the human resource managers also realize that welfare activities pay good dividends in the long run because they contribute a lot towards the health and efficiency of workers. Hence, most of the industrial units have taken up labour welfare and social security measures. In case of India, not only the Public Sector units but also the private sector units have taken up a number of labour welfare measure to encourage and motive the employees and workers.

The term, 'labour welfare', 'employee welfare' and 'workers welfare' are seen to be generally used interchangeably to denote various benefits and facilities provided by the employers to the employees in addition to wages. It is defined by a number of organisation/ commissions like Royal Commission on Labour (Report of the Royal Commission on Labour, Central Publications, Calcutta, 1931.), The Labour Investigation committee (Report of the Labour Investigation Committee, Manager of Publications, Delhi, 1946), the International Labour Organisation (ILO), etc.

The Committee of Exports on Welfare Facilities for Industrial Workers convened by ILO (in 1963) included the following items under the term 'labour welfare.'

A) Welfare and amenities within the precinct of establishment: Laterines and urinals, Washing and Bathing facilities, Crèches, Rest Shelters and canteens, Arrangements for drinking water, Health services, including occupational safety, Arrangement for prevention of fatigue, Administrative arrangements for the welfare of employees, Uniform and protective clothings, Shifts allowance.

B) Welfare Outside the Establishment: Marernity benefit, Social insurance measures, (including gratuity, pension, provident fund and rehabilitation), Benevolent funds, Medical facilities (including programmes for physical fitness and efficiency, family planning and child welfare). Education facilities, housing facilities, Recreational facilities (including sports, cultural activities, library, reading rooms), Holidays homes and leave travel facilities, Workers' co-operation, including consumers' cooperation stores, fair price shops, and co-operative credit and thrift societies, Vocational training for dependents of workers , Other programmes for the welfare of women, youth and children.

For the present paper, 'Labour Welfare' is framed as 'the setting up of minimum desirable standards of the provision of facilities like health, food, clothing, housing, medical assistance, education, insurance, job security, recreation etc. so as to enable the worker and his/her family to lead a good working life, family life and social life.

'Labour Welfare' embraces in its fold all efforts which have their object of improvement of health, safety welfare and general well-being of the workers. It is confined to those activities which are undertaken statutorily or otherwise, inside the industrial premises or outside by any agency, government, employers which do not come under social insurance conditions, and which lead to improvement in health, efficiency and happiness of industrial workers and their families e.g. recreational, medical, educational, washing, bathing, transport facilities canteens and crèches, etc. Thus, the term 'labour welfare' covers not only the workers but also their families. According to Rajkumar (2014), the concept of labour welfare is flexible and elastic and differs widely with time, region, industry, social values and customs, degree of industrialization, the general socio-economic development of the people and the political ideologies prevailing at a particular time. Further, the author also argues that the concept is moulded according to the age-groups, socio-cultural background, marital and economic status and educational level of the workers in various industries. However the authors strongly argue that irrespective of differences among countries and organisations, the labour or employee welfare measures should have the following three main objectives:

- To provide better life and health to workers.
- To make the workers happy, satisfied and efficient.
- To improve intellectual, cultural and material conditions of workers and to relieve them from industrial fatigue.

Significance of the Study

Many empirical studies show that the efficiency of the labour force in India is comparatively lower than in other developed countries due to the poor working conditions. Long hours of hard work, that too in unhealthy conditions without any facilities of recreation make these workers very weak, both mentally and physically. The efficiency of the labour can be increased only by providing good working environment such as food, housing, provision for better health care, recreation, educational facilities, good working conditions, medical facilities, etc. Labour welfare measures are an important part of Human Resource Management.

Labour welfare measures play a vital role in maintaining sound employer-employee relationship in Public Sector Undertakings. The old concepts of labour welfare measures have changed drastically due to the changing industrial scenario and the widening social obligation of business. Advancement of technology, invention of super computers and sophisticated machines etc, have revolutionized the industry sector. The successful functioning of an organisation greatly depends on congenial and cordial employer-employee relationships. Labour welfare would be considered as the social responsibility of the undertaking. This social responsibility is accepted by management in the belief that the promotion of labour welfare would result in increased production that it would make easy for them to become the biggest group of organised voters and to help them fight or win over trade unions, etc.

Statement of the Problem

India is passing through a global competitive era with a number of new schemes being developed every now and then- Make in India, Start-up India and the like. In order to match with the tune of the new trend of development and progress, designing and devising pragmatic labour schemes have become the need of the hour. Effective implementation of such schemes will put the Public Sector Undertakings in an advantageous position to seek better labour productivity and profitability thereupon. However, dissatisfaction of the employees will distract the schemes undertaken by the Government. There are several statutory and non statutory labour welfare measures. Are they properly implemented in Central Public Sector Undertakings? The Central Public Sector enterprises are considered to be the 'Model Employer' in the country. Therefore, it is of great importance to study their status with regards to the effectiveness in the implementation of the available welfare measures.

The growth and development of any undertaking lies in the quality and nature of employees. So it is very important to see whether these employees are satisfied or not. Satisfied labour implies industrial peace and better productivity. That is why the labour Welfare Department is considered as the most important organ of every organisation. Welfare measures are necessary in order to sustain labour productivity and to stabilize the commitment of the industrial community. Is there any significant difference in the level of satisfaction of employees with labour welfare facilities when they are grouped on the basis of employment, working result of the undertaking and size of the undertakings in general and Central Public Sector Units in particular? Whether there is any significant difference in the opinion of the different classes of employees with regards to the level of adequacy in respect of various non-statutory welfare measures? The present paper explores such issues in case of Central Public sector Undertakings in Assam.

Review of Literature

A number of studies on Labour welfare and Social welfare measures have been found in the literature. Some of them are Arora, 1957, Ahuja,1998, Bhattacharya, 1965,Hasan, 1972, Monopa,1990,Narayan,1992, ,Ashok, 1999, Kue-Nel. 2002, Sharma,2003, Mishra,2005, ishra& Bhagat, 2007, Sanyal &Sikidar ,2018,etc.., . While some of the studies are concentrated on theoretical issues on such measures, some are related to the measures taken by different industries like Cement, IT industries, etc. For example, Satyanarayana & Reddy (2012) conducted study on 90 employees of KCP Ltd to find out the satisfaction levels of employees about labour welfare measures of the unit and found that majority of the employees are satisfied with all the welfare measures provided by the organization. According to Mohmmad (2014), compared to other countries, India has much greater need and importance of labour welfare work because of different reasons like, lack of strong labour unions, illiteracy among the labours, etc. According to Rajkumar (2014), there are thirteen factors which influence the Labour Welfare Measures and Social Security in IT Companies in Chennai and they are: 1. Selection and Training process 2. Performance Appraisal, 3. Carrier Planning, 4. Feedback and Counselling, 5. Rewards, Labour Welfare and Work Life, 6. Organizational Development, 7. Employees Participation, 8. Labour Management Relation, 9. Commitment and Involvement, 10. Skill and Knowledge, 11. Motivation 12. Absenteeism, 13. Labour Welfare Legislations. The study of Santhnakrishnan & Rajaranjan (2015) highlights labour welfare measures and programmes towards Transport Corporation limited in Tamilnadu and some of them are free pass to school children of the employees., financial assistance, advance to the employees canteen, employees co-operative stores, employees cooperative thrift and credit society, employees recreation club, periodic film shows and television facility to Head office and all depots, marriage loan for their sons and daughters on concessional rate of interest, uniforms to the employees.

Objectives

- To assess the facilities of employees' welfare measures extended to the employees in select Central Public Sector Units in Assam
- To evaluate the level of satisfaction of employees with regard to employees' welfare measures of select Central Public Sector Units in Assam.
- To examine whether there is significant difference in the opinions of the male and female employees of select Central Public Sector Units in Assam
- To examine whether there is significant difference in the opinions of the executive and nonexecutive employees of select Central Public Sector Units in Assam.

Hypotheses

H01: there is no significant difference in the opinions of the male and female employees of select Central Public Sector Units in Assam with regard to the facilities of employees' welfare measures extended to the employees

H02: there is no significant difference in the opinions of the executive and nonexecutive employees of select Central Public Sector Units in Assam the facilities of employees' welfare measures extended to the employees

Research Methodology

Research Design: Both descriptive and empirical research design has been followed in the present study.

Both primary and secondary data have been used in the present study. Primary data was collected by using a structured undisguised schedule directly aimed at the respondents. Furthermore, the purpose of the interview using the schedule was also thoroughly explained to the respondents. 22 major variables related to labour welfare and social security measures are included in the schedule. A five point scale for rating the answers to the questions has been used.

Secondary data were collected from research studies made in different Research Institutes, Management Institutes, Universities and Trade Organisations, ILO Reports, books and journals, websites, and various reports published by agencies and annual reports (2011-12 to 2015-16) of the concerned selected organizations working on the topic.

The Universe for the study is all the employees engaged in the Central Public Sector Units operating in Assam; i.e., No. of employees is 45,659 (according to the DPE, Annual Report of 2014-15).

Employees of Central Public Sector Undertakings working in Assam. The organisation includes Coal India Ltd. (North- Eastern Fields), Margherita; Indian Oil Corporation Ltd. (Digboi Refinery), Digboi; Brahmaputra Valley Fertilizers Corporation Ltd. Namrup; Oil And Natural Gas Corporation Ltd., Nazira; Numaligarh Refinery Ltd., Numaligarh; Hindustan Paper Corporation Ltd. (Nagaon Paper Mill), Jagiroad; Oil India Ltd. (Guwahati Refinery).

Further, from within the organizations, the Executives and Non- Executives categories of employees shall form the basis of the study with regards to their opinion in relation to the 'Employees Welfare and Social Security' measures in their respective organizations.

The period of study was 2015 to December, 2016, i.e. for two years.

'Stratified Random Sampling' technique has been adopted. The sample size for the present research enquiry is selected using the Krejcie & Morgan model (Small-Sample Techniques. *The NEA Research Bulletin*, Vol. 38 (December, 1960), p. 99) and it comes to 359. This sample unit is ascertained at 95% confidence level and 5% Margin of error. Further, the number of employees to be interviewed in each of the organizations is estimated proportionately from the total population with relevance to the number of employees in each of the organizations.

Table:1: List of Selected CPSU and proportionate distribution of sample units

Sl.	Name of the CPSE	Number of employees (cadre wise)		Sample Size from each Organisations selected proportionately		Total
		Execu-tives	Non-Executives	Execu-tives	Non-Executives	
1.	Brahmaputra Valley Fertilizer Corporation Ltd.	368	399	24	26	50
2.	Cement Corporation of India Ltd.(Bokajan Plant)	137	153	9	10	19
3.	Hindustan Paper Corporation Ltd.(Nagaon Paper Mill)	137	425	9	28	37
4.	India Oil Corporation Ltd. (Digboi Refinery)	368	782	24	51	75
5.	Coal India Ltd. (North- Eastern Coalfields)	352	1498	23	98	121
6.	Numaligarh Refinery Ltd.	197	667	13	44	57
	Total	1559	3924	102	257	359

Source: Arrived using the Krejcie Morgan Model, 1960 on the Annual Report of Respective Organisations 2014-15

Major Factors Analysed

a) Statutory Welfare Facilities: Washing facilities, Drinking water facilities, First-aid box facilities, Rest shelter facilities, Crèches, Sitting Facilities, Canteens , Storing & drying clothes facilities and Welfare Officer

b) Non-Statutory Welfare Facilities: Medical facilities, Educational facilities, Recreational facilities, Housings ,Consumer cooperative stores, Cooperative credit ,society, Transportation Facilities

Reliability Test: A test of reliability (Cronbach Alpha test) was conducted by using the SPSS software to validate the questionnaire and found within acceptable levels (above 0.6) The Result of the same is displayed below in the following table:

Table 2 : Results of the reliability test

Factors	Internal Consistency Reliability Scores
Statutory Welfare Facilities (10 items)	0.973
Non- Statutory Welfare Facilities (9 items)	0.968

Source: Derived using SPSS 16.

Data Analysis And Statistical Tools Used: Both descriptive statistics and inferential statistics like Frequency Distribution table, Arithmetic Mean, Standard Deviation, and F Test. For comparing results, percentages, averages and standard error variances has been used. The F-test has been applied in the study to find out the difference in the opinions of executive and non-executive workforce with regard to the provision and sufficiency of social security benefits.

Limitation of the study: One of the important limitations of the present paper is that the scope is limited to Central Public Sector Units and opinions of the respondents are contemporary in nature. Another, limitation is the sample size; it hardly covers 6 percent of the total population.

Findings:

(i) Demographic Profile of the respondents, (i) Findings with respect to Statutory Welfare measures and (iii) Findings with respect to Non- Statutory Welfare measures.

(i) Demographic Profile of the respondents

Table:3 . Classification of sample

Name of the Organisations	Indian Oil Corp. Ltd. Digboi	Coal India Ltd.	Brahma- putra Valley Fertiliser Ltd.	Numa- ligarh Refinery Limited	Cement Corpor- ation of India Ltd.	Bokajan Hindustan Paper Corpo- ration Ltd.	Total
Gender							
Male	60 (80.0)	103 (85.13)	40 (80.0)	47 (82.46)	17 (89.47)	30 (81.08)	297 (82.73)
Female	15 (20.0)	18 (14.87)	10 (20.0)	10 (17.54)	2 (10.53)	7 (18.92)	62 (17.27)
Total	75	121	50	57	19	37	359

Contd...

Contd...

Designation	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)
Factory/Mine worker	38 (50.66)	71 (58.68)	18 (36)	31 (54.39)	7 (36.84)	21 (56.76)	186 (51.81)
Office Staff	5 (6.67)	14 (11.57)	4 (8)	6 (10.53)	1 (5.26)	3 (8.11)	33 (9.19)
Supervisory Staff	8 (10.67)	13 (10.74)	4 (8)	7 (12.28)	2 (10.53)	4 (10.81)	38 (10.59)
Executives	24 (32)	23 (19.01)	24 (48)	13 (22.80)	9 (47.37)	9 (24.32)	102 (28.41)
Total	75 (100)	121 (100)	50 (100)	57 (100)	19 (100)	37 (100)	359 (100)
Experience							
0-5 Years	20 (26.67)	21 (17.36)	9 (18.0)	7 (12.28)	4 (21.05)	0 (0.0)	61 (16.99)
6-10 Years	22 (29.33)	16 (13.22)	12 (24.0)	21 (36.84)	7 (36.84)	11 (29.73)	89 (24.79)
11-15 Years	18 (24.0)	10 (8.26)	6 (12.0)	14 (24.56)	5 (26.32)	20 (54.05)	73 (20.33)
16 years and above	15 (20.0)	74 (61.16)	23 (46.0)	15 (26.32)	3 (15.79)	6 (16.22)	136 (37.89)
Total	75 (100)	121 (100)	50 (100)	57 (100)	19 (100)	37 (100)	359 (100)
Residents							
Within Assam	45 (60.0)	99 (81.82)	40 (80.0)	40 (70.18)	16 (84.21)	33 (89.19)	273 (76.04)
Outside Assam	30 (40.0)	22 (18.18)	10 (20.0)	17 (29.82)	3 (15.79)	4 (10.81)	86 (23.96)
Total	75 (100)	121 (100)	50 (100)	57 (100)	19 (100)	37 (100)	359 (100)

Source: Field Survey

Note: Figures in the brackets indicate percentage to their column totals

The table 3 presents distribution of the sample respondents belonging to the 6 different organisations on the basis of their gender. It is seen here that 82.73% are males whereas 17.27 % are females. It is clearly understandable that the male respondent in all the organisations constitutes more than 80% but less than 90% of the total sample respondents whereas the female respondents accounts for more than 10% but less than 20% of the total sample respondents. Regarding the distribution of sample respondents on the basis of designation (table 4), it is revealed that nearly 52% of the sample respondents belongs to either 'Factory Worker' or 'Mine Worker' class. Around 9% of the sample employees were office staffs and 11% of them belonged to the supervisory staff. A total of 102 sample employees which accounted for 28.41% respondents of the total belonged to the executive class.

It is seen that majority of the sample respondents accounting to 37.89% of them have been associated with their respective organisations for more than 16 years. 24.79% of them have said to be working for their organisation for the period ranging from 6 to 10 years. 20.33% of the respondents which constitute for 73 employees have been associated with their organisation for period ranging from 11 to 15 years. It is revealed that that 76.04% of employees are the permanent residents of Assam whereas about 23.96% of the sample respondents are from other states of the country.

Findings with respect to Statutory Welfare measures

In case of statutory welfare measures, cent percent of the respondents of the study are of the opinion that all the statutory welfare facilities are being provided in all of the organizations to which they belong irrespective of male –female and executives-non executives.

a) Regarding the gender wise satisfaction level, (Table 4), the mean value is found as 2.5 in case of male and 3.4 in case of female employees. It can be derived from the findings that the overall satisfaction level is moderate in nature. Neither it is found to be highly satisfied nor highly dissatisfied.

b) Regarding the overall level of satisfaction among Executives and Non Executives on statutory facilities (Table 5), it is found as satisfactory in case of executives (mean value 2.4) whereas moderately satisfied in case of non executives (mean value 2.8, i.e. 3). The Standard Deviation between the groups is found to be 0.930 and 0.898 respectively which is below 0.95 indicating that data points tend to almost close to the mean.

Table 4: Overall satisfaction with regards to statutory facilities (male –female)

					95% Confidence Interval for Mean	
Gender	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound
Male	297	2.5993	.88783	.05152	2.4979	2.7007
Female	62	3.4355	.76009	.09653	3.2425	3.6285
Total	359	2.7437	.92214	.04867	2.6480	2.8394

Table 5: Overall level of satisfaction with regards to statutory facilities (executives and non executives)

					95% Confidence Interval for Mean	
Class of employees	N	Mean	Std. Deviation	Std. Error	Lower bound	Upper bound
Executives	102	2.47	.930	.09211	2.2879	2.6533
Non Executives	257	2.85	.898	.05601	2.7418	2.9624
Total	359	2.74	.922	.04867	2.6480	2.8394

iii) Findings with respect to Non- Statutory Welfare measures.

It is also found from the field survey that all the employees irrespective of executives and non executives are provided non statutory facilities by the concerned CPSU which they belong to. The major findings are presented below:

a) Regarding the overall satisfaction between male and female employees with regard to non-statutory facilities, the mean value is found as 2.4 in case of male and 3.1 in case of female employees. It can be derived from the findings that the overall satisfaction level is satisfied in case of male employees and moderate in case of female employees.

b) Regarding the overall level of satisfaction among executives and non executives on non statutory facilities (Table 6), it is found satisfactory in case of executives (mean value 2.3) whereas moderately satisfied in case of non executives (mean value 2.6, that is 3).

Table 6: Overall satisfaction with non statutory facilities (male and female)

					95% Confidence Interval for Mean	
	N	Mean	Std. deviation	Std. Error	Lower bound	Upper bound
Male	297	2.4108	.80515	.04672	2.3188	2.5027
Female	62	3.1935	.98910	.12562	2.9424	3.4447
Total	359	2.5460	.88909	.04692	2.4537	2.6382

Table 7: Overall non-statutory welfare facilities between the class of employees

					95% Confidence Interval for Mean	
Class of employees	N	Mean	Std. deviation	Std. Error	Lower bound	Upper bound
Executives	102	2.31	.844	.08358	2.1479	2.4795
Non-Executives	257	2.64	.891	.05559	2.5287	2.7476
Total	359	2.55	.889	.04692	2.4537	2.6382

Hypotheses Testing

The hypotheses testing results are shown in Table 8, in both the cases of null hypotheses Ho1 and Ho2 as well as statutory and non statutory welfare measures, since the calculated 'p' value is less than .05, both the null hypotheses are rejected. Hence, it can be concluded that there is a significant difference in the opinions of the male and female employees as well as executives and non executive employees of Central Public Sector Units in Assam with regards to their level of satisfaction in respect of various statutory welfare measures availed by them.

Table 8: Hypotheses testing result

Null Hypotheses	df	Mean Square	F	Sig.	Remark
Ho1.a. (no significant difference between male and female in case of statutory welfare measures)	1	35.862	47.671	.000	Rejected
Ho1.b. (no significant difference between executive and non executive in case of statutory welfare measures)	1	31.429	44.601	.000	Rejected
Ho2.b. (no significant difference between male and female employees in case of non-statutory welfare measures)	1	10.630	12.917	.000	Rejected
Ho2.b. (no significant difference between executive and non executive in case of non-statutory welfare measures)	1	7.685	9.965	.002	Rejected

Conclusion

As mentioned in the introductory part of the paper, labour or employee welfare is a comprehensive term, which may include any activity, which is connected with the social, intellectual, moral and economic betterment of workers provided by any agency. Such activities may differ from country to country and from region to region or from organisation to organisation. However, the common agenda is of for the labour welfare measure is to provide the facilities which will help the well-being of the employees. Hence proper implementation of labour welfare measures is highly essential for any organisations. This is a big challenge of human recource managers of today's world. The world has become a village and better human relationship in the organisation with proper implementation of welfare measure of employees has to be given more importance than ever.

Otherwise, there is a possibility of losing productive human resources of the organisation. There are number of employees who have been working more than one decade in the respective enterprises. Though some of the employees are highly satisfied with the welfare measures, the overall result shows that in case of male employees, they are satisfied with the welfare measures provided by their organisations where as in case of female employees, they are moderately satisfied with the welfare measures provided by their organisations. In case of medical, education, transport and recreation facilities, though the opinions on the level of satisfaction are found to be same, the overall hypotheses result shows that there is significant difference in the opinions of executive and non executive employees of Central public Sector Units which are operating in Assam with regard to both statutory and non statutory welfare measures.

Though present paper is confined to only labour welfare measures of Central Public sector units, there is a scope for future research and some of the areas are: (a) a comparative analysis between Private and Public Sector Units, (b) evaluation on Both Labour welfare measures and Social welfare measures (c) A comparative study on the changes on Labour welfare measures and Social welfare measures in India during pre and post globalisation, etc.

REFERENCES

Chauhan, Daisy (1995). Challenges for Human Resource Development in the Changing Environment. *Personnel Today*, Vol.XV, No. 4, January-March.

Deepika, M.G. (2008). A Relook into the measurement of Human welfare and happiness, *HRM Review*, Hyderabad, November, p.42-44.

Mukul G. Asher. (2009). Pension plans, provident fund schemes and retirement policies: Indian Social security reform imperative, *ASCI Journal of Management*, Hyderabad, September, Vol.39, No.1, p.1-18.

P, Mohammad Yasik. (2014). A study about labour Welfare and Social Security in India. *International Journal of Management, Information Technology and Engeenering:* Vol 2, Issue 8..

Rajkumar , B. (2014). A study on labour welfare measures and social security in IT industries with reference to Chennai. *International Journal of Enterprise Computing and Business Systems* :Vol 4, Issue 1.

Santhanakrishnan, Dr. R. & Rajarajan, Dr. M. (2015). Labour welfare measures and programmes towards transport corporation limited in Tamil Nadu. *International Journal of World Research*. Vol: I, Issue 20.

Satyanarayana, M. Rama & Reddy, R.Jayaprakash. (2012). Labour welfare measures in cement industries in India (A Case of KCP Limited, Cement Division, Macherla, Andhra Pradesh). *International Journal of Physical and Social Sciences:* Vol 2, issue 7.

Sanyal, J & Sikidar, S. 2018. Labour welfare and social security measures in India- A Synoptic Study, *International Journal of Research Publication* (Volume: 9, Issue: 1).

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Credit Guarantee Scheme of Micro and Small Enterprises in Assam: An Impact Analysis

RAJU DAS, NAGARI MOHAN PANDA AND BENJAMIN F. LYNGDOH

Abstract: This paper is a revelation of an evaluative study conducted to measure the efficacy of the credit guarantee scheme on the basis of a comparison made between the performance of its beneficiaries and non-beneficiaries. Following a scientifically designed sampling procedure to obtain reliable data from 300 MSEs (200 in experimental group and 100 in control group) analysis has been made on the basis of average treatment effect (ATE) under the technique PSM (Propensity Score Matching) and the significance of the differential performance between the two groups has been tested by means of two-tailed t-test.

Keywords: Credit Guarantee Scheme (CGS), Member Lending Institution (MLI), Micro and Small Enterprise (MSE), Experimental and Control Group (ECG), Propensity Score matching (PSM), Average Treatment Effect (ATE).

Introduction

The Micro, Small and Medium Enterprises (MSMEs) sector has been bench marked as highly energetic and dynamic sector in the Indian economy over the last few decades. It contributes significantly towards employment generation and higher capital productivity (SIDBI, 2015-16). Micro and Small sector enterprises have a multi-dimensional function in the economic growth of a developing nation like India. Since 1991 the government has taken many measures and initiatives for the growth and development of MSMEs but still MSMEs are struggling to survive in national as well as global competitive environment. It is, therefore, imperative to focus on the issues which impact the creation, survival and growth of the firms in this sector. One of the major obstacle in the growth of MSEs is the credit constraints. Credit Guarantee Schemes (CGS) is globally accepted as an instrument of credit flow to ease financial constraints for MSEs without any secondary

Raju Das is Research Scholar, Dept. of Commerce, North-Eastern Hill University, Shillong, Meghalaya, India; Nagari Mohan Panda is Professor, Dept. of Commerce, North-Eastern Hill University, Shillong, Meghalaya, India and Benjamin F. Lyngdoh is Assistant Professor, Dept. of Tourism and Hotel Management, North-Eastern Hill University, Shillong, Meghalaya, India.

collateral / third party guarantee. In India, with large efforts by the Government of India jointly with RBI, the CGS came into existence in August 2000. Credit Guarantee Fund Scheme for Small Industries (CGTSI) was established with collateral free credit limit upto Rs. 25 lakhs jointly by the Government of India and Small Industries Development Bank of India (SIDBI). After MSMEs Act 2006, the scheme was renamed as Credit Guarantee Fund Trust for Micro and Small Enterprises in India (CGTMSE) with the credit limit upto Rs.50 lakh. Again the limit of Credit Guarantee Scheme (CGS) coverage extended from Rs. 50 lakhs to Rs. 100 lakhs with the introduction of Economic Stimulus Package announced by the Government of India on December 07, 2008. Micro, small and medium enterprises are defined by the MSME Act, 2006. Manufacturing enterprises with investment in plant and machinery below Rs 25 lakhs are termed as micro enterprise, between Rs. 25 lakhs and Rs. 5 crore as small enterprises and between Rs. 5 crores to 10 crores as medium enterprises. Similarly, for service enterprises having investment in equipment below Rs.10 lakhs are termed as micro enterprise, between Rs. 10 lakhs and Rs. 2 crores as small enterprise and between Rs. 2 crores to 5 crores as medium enterprise.

Credit guarantee scheme (CGS) is recognised as an important instrument to provide credit to the MSEs across the globe. The objective of the scheme is to provide credit guarantee to those MSEs who are unable to start or find difficult to continue business due to lack of credit in the absence of collateral security. The credit guarantee scheme has often been praised in various international studies for its positive effects even though there have been some negative remarks on the effectiveness of the scheme (Uesugi, Sakai and Yamashiro, 2008). No evaluative study of the scheme in the Indian context has so far appeared in the literature. Scanty literature found on the credit guarantee scheme in India have dealt with general aspects of the scheme that covers scheme features (Sarda, 2008), working of the scheme (CGTMSE, 2017; NCGTC, 2017; RBI, 2010; Yadav, 2015), scheme features across the globe including India (Beck, Klapper & Mendoza, 2008), divergence in guidelines, awareness among the potential beneficiaries and problems faced by the beneficiaries (Rahiman, 2010). When it comes to evaluation of the scheme only one study was found where the researcher has examined the efficacy of the scheme in enhancing the performance of the beneficiaries in the state of Odisha in terms of three performance parameters i.e. employment, turnover and profitability (Acharya, 2015). As the environment for implementation of the scheme differs from state to state due to varied degree of industrialisation and variation in the socio-economic condition and managerial skills similar study in other states assumes importance.

Review of Literatures

Access to credit is a major challenge for MSEs (Saikia, 2012; Bhattacharya, 2008; Hughes, 1997) due to lack of collateral security (Ahmed, 1984) and higher default risk (Salwan, 2012; Singh and Wasdani, 2016). The financial access is limited from the formal sources for those enterprises that do not maintain books of accounts and do not have registration with one of the government agencies or under any act, and as a result are forced to be engaged in either proprietary or partnership (Bhavani and Bhanumurthy, 2014). Limited or no access to finance is an important growth constraint for SMEs (Beck & Demirguc-kunt, 2006) which disrupt the growth and survival of the MSEs. Moreover, it handicapped the potentiality (employment creation, poverty alleviation and economic growth) of the MSEs (Hughes, 1997).

Credit guarantee is the easy way to access bank credit in the absence of collateral security (Acharya, 2015; Zecchini& Ventura, 2009). The history of credit guarantee scheme dates back to 19th century and the first guarantee scheme was established in Belgium and France in 1984. There are more than 2250 active guarantee funds in 100 countries by 2003 (Tunahan & Dizkirici, 2012). Many countries around the world established credit guarantee scheme as a central instrument to alleviate SMEs financing constraints. There are three different type of governance relating to credit guarantee schemes across the globe. They are mutual guarantee associations, publicly operated national scheme, and corporate association operated and funded by private sectors. Majority of credit guarantee schemes in high income countries are mutual guarantee associations and majority of funds in middle and low income countries are publicly operated. Ownership, management and funding structures of the schemes are varying widely across the countries worldwide and similarly their pricing, risk assessment and risk management are different (Beck, Klapper & Mendoza, 2008). Loan guarantee programme is the effective instrument for supporting start-up, growth and survival of new and risky enterprises (Riding & Haines, 2001). SMEs are encouraged by CGS to take better steps to monitor their enterprise performance and help SMEs to increase their efficiency (Devinaga and Tan, 2012).

Oh, Lee, Heshmati & Choi, (2009) evaluated two credit guarantee schemes in Korea namely KOTEC (Korea Technology Credit Guarantee Fund) and KCGF (Korea Credit Guarantee Fund) by using propensity score technique to remove selection bias. They compared large matched guaranteed firms with matched non-guaranteed firms with respect to growth rate of different performance indicators such as productivity, sales, employment, wages level, investment intensity and change in R&D status as well as survival of the firm. The study was conducted during the years 2000 to 2003 in post crisis period (after Asian financial crisis occurred from mid-1997 to 1998). Results indicated that ATT

(Average Treatment on Treated) for growth in sales, employment, and wages level were positive and significant for the firms guaranteed by either KOTEC or KOCG or by both the schemes and there was mix result for other variables. However, credit guarantee scheme showed a positive effect on survival in all the guaranteed cases. Uesugi, Sakai and Yamashiro (2008) empirically examined the effectiveness of the credit guarantee program in Japan on loan availability, assets allocation and the ex-post performance in terms of business profitability. It was found that there is a significant increase in loan availability for SCG program (Special Credit Guarantee Program for Financial Stability) users related to non-users and minimal positive effect on firm's assets' allocation. Further SCG users are more deteriorated than non-users to have subsequent lower profitability and higher probabilities of falling into financial distress. Bradshaw (2002) conducted a study for the period from 1990 to 1996 using the data set of California trade and commerce agency on 759 different firms, to assess the public benefits (creation of employment, increase in pay roll, sales and sales tax generated by the guaranteed firms) made by California State Loan Guarantee Program (SLGP). It was done by comparing the changes in the above variables after and before receiving guaranteed loan by the firms. He selected 300 firms in his sample by using stratified sampling framework to justify the data base of the agency used for the study. By comparing the changes of the firms after and before the guarantee, it was found that there is growth in the employment, pay roll, personal tax, sales and sales tax, contributing to economic development of the state. Similarly, Zecchini & Ventura (2009) attempted to evaluate the impact of the Italian guarantee system using financial data of SMEs for the period between 1999 and 2004. To address this issue, the sample firms were divided into treatment group and control group to estimate the casual effect. In this case the similar eligible units were divided into two periods 'before treatment' (control units) and 'after treatment' (treated units). He justified that DID (difference in difference) is the best measure for such type of evaluation study. He concluded that Italian guarantee scheme had worked as a powerful instrument to reduce the borrowing cost and increase credit availability to ease the financing constraints to SMEs. Another empirical study has been conducted by Riding, Madil & Haines (2007) to measure the incrementality (increase in credit flow or credit availability) of Canadian small business financing programme (CSBF) by using logistic regression and found that the incrementality is associated with CSBF programme. Canaan (2011) studied to assess whether Labanese Credit Guarantee Scheme (Kafalat) is able to establish the continuous lending relationship with its clients. This study is based on the dataset of 6888 loan applications received by the Kafalat during the period from 2000 to 2009. Out of 6888 loan applications, 72.26% are non-repeat customers. Logit regression was used to establish the continuous lending relationship and it was found that there is no continuous lending relationship with the clients of any specific sector, region, loan sizes and repeat loan.

Mthimkhulu & Aziakpono (2012) made an attempt in their study to know whether "Khula Credit Guarantee Scheme" addressed the credit market failure for small business enterprises in South Africa by using data pertaining to the period from 1996 to 2012 and found that there was drastic increase (10-42) % in credit flow in initial 2 years and thereafter it remained flat. Riding and Haines (2001) studied the cost and benefits of Canadian Loan Guarantee Program called 'The Small Business Loan Act' (SBLA). The study revealed the following important outcomes; (i) Job creation at the lowest cost, (ii) the survival rate is higher for the firms backed by SBLA loan, (iii) defaults rate is higher for new enterprises and it is increased with the amount of funds borrowed and finally the conclusion that SBLA was an effective instrument for supporting start-up, growth, and survival of new and risky enterprises.

There are many studies at international level linking performance of MSEs with the credit guarantee schemes in order to assess the efficacy of the schemes in their respective jurisdiction. Performance evaluation is one of the ways to study the outcome of the government policy both at national and regional level. The efficacy of the policy need be measured periodically for its instrumental value not only in the scheme continuation decision but also for the decision pertaining to implementation and modification. Periodic evaluation of the government policy is very important to know whether such policies have been implemented successfully to achieve the prior objectives. In this regards, a humble attempt has been made in the present study to empirically examine the efficacy of Credit Guarantee Scheme on the broader performance of MSEs covered under the scheme in one of the states of the North East Region of India. In order to pursue the objective of the study, the following hypotheses are proposed to be tested.

H_{01}: There is no difference between the performance of beneficiaries and non-beneficiaries on account of employment generation.

H_{02}: There is no difference between the performance of beneficiaries and non-beneficiaries on account of Investment.

H_{03}: There is no difference between the performance of 'beneficiaries and non-beneficiaries' on account of turnover.

H_{04}: There is no difference between the performance of beneficiaries and non-beneficiaries on account of production.

Methodology

For the purpose of this study, the state of Assam (top most performers in North East having approximately 70% coverage in terms of cumulative approved number of proposals) is selected. Out of 33 districts in Assam, two districts namely Kamrup Metro and Kamrup rural have been purposively chosen for (i) the district enjoys the highest small industrial concentration (28%) and highest priority sector lending (41%), (ii) the maximum number of bank branches approx (20%) and (iii) the district has both rural and urban features. Three bank branches have been selected from kamrup metropolitan and two branches have been selected from kamrup rural. Finally from each branch 8 beneficiaries and 4 non-beneficiaries are selected randomly by the bank under the condition that the term loan sanctioned has completed at least three years. Accordingly, sample of 300 MSEs (same sample size used in evaluation study done by Bradshaw, 2002) drawn from the universe which includes 200 beneficiaries and 100 non-beneficiaries as shown in (Table 1).

Table 1: Presentation of sampling design

Sl N0.	Name of the member Lending Institutions (MLIs)	Number of branches selected randomly		Sample per branch (B for beneficiaries; N for non-beneficiaries)		Sample MLIs (B for beneficiaries; N for Non-beneficiaries)		Total Sample per MLI
		K(R)	K(M)	B	N	B	N	
1	Assam Gramin Vikash Bank	2	3	8	4	40	20	60
2	Bank of India	2	3	8	4	40	20	60
3	Canara Bank	2	3	8	4	40	20	60
4	Indian Overseas Bank	2	3	8	4	40	20	60
5	UCO bank	2	3	8	4	40	20	60
	TOTAL	10	15			200	100	300

To study the efficacy of the credit guarantee scheme, five MLI (Banks as a member of the CGTMSE) have been selected purposively; out of the top ten performers in the North East region in terms of the cumulative approved amount up to the financial year 2015-16. While selecting the MLI we ensured informally that these banks will extend reasonable co-operation at the branch level in providing relevant data for the study. Further these selected banks fulfil the condition that each bank has at least 3 branches in kamrup metro and 2 branches in kamrup rural. These MLIs include four nationalised public sector banks (Indian Overseas Bank, Uco Bank, Bank of India and Canara bank) and one state level regional rural bank namely AGVB (Assam Gramin Vikash Bank, the bank having largest number of branches in Assam and the top performer in terms of CGTMSE coverage amongst all RRBs operating in North East).

A schedule based survey has been conducted to generate primary data from 300 sample MSEs. The process of data collection has been further supplemented by oral interview, record observation, discussion, non-participant observations, cross questioning and other commonly followed technique. The schedule is comprehensive to capture the demographic features of the entrepreneur, enterprise features and enterprise performance. The demographic features includes age, gender, education, working experience and participation in CGTMSE training etc; enterprise information includes sector, location and loan size; enterprise performance information includes employee's strength, turnover, investment in fixed assets and production value for last three financial years i.e. 2014-15, 2015-16 and 2016-17.

The outcome variables turnover, employment, investment and production need to be defined here for clarity. Outcome variables are computed by taking the average value for last three years from 2014-15 to 2016-17. Turnover is the average amount of sales or revenue received for last three years; Employment is the average number of workers and staffs (including owner) engaged for last three years; Investment in fixed assets is the average value of total investment in fixed assets for last three years; Production value is the average cost of production of goods and services for the last three years.

Analysis

Descriptive statistics

Out of total 200 beneficiaries, 80 (40%) are from kamrup rural and 120 (60%) from kamrup metro; 180 (90%) are male and 20 (10%) are female; 139 (69.5%) are from service sector and 61 (30.5%) are from manufacturing sector; 108 (54%) are within 5 years of experiences and 92 (46%) are above 5 years of experiences in business; 56 (28%) are within 30 years of old, 59 (29.5%) are between (31-40) years of old, 69 (34.50%) are between (41-50) years of old and 16 (8%) are above 50 years of old; 54 (27%) are below class X, 52 (26%) are class X passed, 45 (22.5 %) are higher secondary passed and 49 (24.5%) are graduate and above; 32 (16%) are within loan amount of rupees one lakh, 127 (63%) are between (100001-300000) lakhs, 11 (5.5%) are between (300001-500000) lakhs and 30 (15%) are above 5 lakhs. On the other hand out of total non-beneficiaries, 40% are from kamrup rural and 60% are from kamrup metro;72% are male and 28% are female; 58% are from service sector and 42% are from manufacturing sector; 78% are within 5 years of experiences and 22% are above 5 years of experiences; 40% age are within 30 years of old, 39% are between (31-40) years of old, 19% are between (41-50) years of old and 2% are above 50 years of old; 17% are below class X, 13% are class X passed, 43% are higher secondary passed and 27% are graduate and above; 13% are within loan amount of rupees 1lakh, 74% are between (100001-

300000) lakhs, 7% are between 300001-500000) lakhs and 6% are above 5 lakhs.

It is the bank policy which determines the CGTMSE coverage and Non-CGTMSE coverage of the MSE's loan. Credit guarantee coverage is more preferred to the MSEs who have high risk profile than low risk. Therefore a simple comparison between beneficiaries and non-beneficiaries is not appropriate (Uesugi, Sakai &Yamashiro, 2008). The impact of a program is understood as extra value added by taking part in a program (Rubin 1974). In this study, the effect of the credit guarantee scheme can be defined as 'what would have happened to those who, in fact, did receive treatment, if they had not received treatment? The basic concept of effect of a scheme may be defined by the additional value added should, thus, be based on the appropriate construction of a counterfactual. Modern evaluation technique are based on estimating this counterfactual (Blundell and Costa Dias, 2000)

Considering the counterfactual problems, the most appropriate measure of the effectiveness of the credit guarantee scheme might be a comparison of the performances of two groups with the same features, assuming that one received guarantee and other did not. In this research study, we apply the Propensity Score Matching methodology, which allow us to construct a comparison group by matching firms based on the equal score. With this approach, we proceed to solve the selection bias problem, and able to make a comparison between the experimental and control group to estimate the sole outcome from the scheme. To conduct such type of study, Rosenbaum and Rubin (1983) used the term propensity score matching technique first time in the estimation of causal effects and developed a set of related techniques to reduce the selection biases in observational studies. Koh and Testa (2008) also used PSM technique to address the issue of selection bias.

The use of micro-econometric technique to evaluate the effects of the public policies has become a common interest not only for scholars but also for policy makers engaged in designing, implementing and evaluating projects in different discipline. Among the different evaluation techniques, propensity score matching technique is commonly applied in different policy evaluation studies (Oh, Lee, Heshmati & Choi, 2009; Zecchini & Ventura, 2009; Asdrubali & Signore, 2015).

Technique of PSM starts with the selection of the confounders (covariates) of treated and control group. For the computation of the propensity scores, the covariates used are age of the entrepreneurs, experience of the entrepreneurs, amount of loan, education, sector and gender which specifically represent how different is each MSE. Propensity score of the treated and the control group with the same confounders are calculated with the help of the XLSTAT 2018 (statistical software for data analysis). In our analysis the propensity score ranges from 0.97

to 0.21 (51 different scores) for treated group and from 0.94 to 0.17 (44 different scores) for control group. Accordingly the propensity scores are extracted for the 300 observations of which 200 from treated group and 100 from control group. Observations from treated group and control group having the same propensity score are selected. Different types of matching namely Mahalanobis Metric matching, nearest neighbour matching, full matching, exact matching, pair matching and so forth are available for analysis. Full matching is considered to be the most appropriate (Haviland et al. 2007) matching and hence applied in our study. On matching, 346 types of matched observations are found spread over 32 different matched scores covering 155 observations from treatment group and 73 observations from control group in matching set. Unfortunately 19 scores which cover 45 observations from treated group and 12 scores which cover 27 observations from control group are found unmatched and eliminated from the matching set.

For the purpose of evaluating the performance of the beneficiaries and non-beneficiaries, the Average Treatment Effect (ATE) is calculated. In this study, to calculate ATE, first three years average outcome of the matched units is computed then again average outcome of all matched units covered under single score is taken individually for all 32 matched score. Finally average treatment effect is the difference between the sum of the outcomes of the matched treated and control group (Table 4). If ATE is positive, that means the performance of the treated group (Beneficiaries) is better than the performance of the control group (non-beneficiaries) and vise-versa. On the basis of four outcome variables measured by the ATE, four null hypotheses have been proposed.

Findings and Discussion

The findings of the study are discussed with the help of ATE, which signifies the performance of the beneficiaries and non-beneficiaries in terms of their outcome variables. Before that, we have to look at the scenario of the matched firms with the help of descriptive statistics presented in (Table-2). The descriptive statistics about four outcomes variables of the enterprises covered under the matching set provide prima facie evidence to have a comparison between EG and CG. Performance on account of employment generation measured in terms of number of employees, on an average is computed for the EG at 3.60 with a standard deviation 2.53 and for the CG at 3.79 with a standard deviation 3.45. Although there is observed higher degree of variation in both the groups, the mean performance of the CG is greater than the mean performance of the EG, which signifies that the performance in case of the CG of enterprises is higher than their counterparts in the EG. The performance on account of the quantum of investment is also recorded higher for the CG (mean value at Rs. 7.18 lakhs with a standard deviation of Rs. 21.64 lakhs) as compared to that of the EG (mean value Rs. 6.74 lakhs with a standard deviation Rs.14.39 lakhs). The performance on account of turnover, the EG has recorded a higher mean (mean Rs. 13.77 lakhs with a standard deviation Rs. 33.32 lakhs) as compared to CG (mean Rs. 10.03 lakhs with a standard deviation Rs.17.23 lakhs). Further, the production performance of the enterprises under the EG is also observed to be higher (mean value Rs.9.24 lakhs with a standard deviation Rs. 28.78 lakhs) than their counterparts in the CG (mean value Rs.5.49 lakhs with a standard deviation 12.26 lakhs). In case of all the four outcome variables, we observed a very wide variation for both CG as well as EG, which is well evident not only by their respective standard deviations but also in the difference between maximum and minimum values. The summary finding that is drawn here is that the average performance of the experimental group is better in case of turnover and productions. Given the level of production and turnover, relatively lower mean value recorded for the experimental group on account of employment and investment (considered as input to the production system) suggests that the enterprises in this group have improved their efficiency because of their participation in the CGTMSE.

Table 2: Descriptive statistics of the outcome variables of the matched firms

Outcome Variables/Descriptive Statistics		Minimum value	Maximum value	Mean value	Standard deviation
Employment (In numbers)	Experimental group	1.00	12.95	3.60	2.53
	Control group	1.67	19.67	3.79	3.45
Investment (Rs. In lakh)	Experimental group	0.60	66.55	6.74	14.39
	Control group	0.57	116.70	7.18	21.64
Turnover (Rs. In lakh)	Experimental group	2.78	190.86	13.77	33.32
	Control group	2.79	83.77	10.03	17.23
Production (Rs. In lakh)	Experimental group	0.77	163.64	9.24	28.78
	Control group	0.68	65.38	5.49	12.26

Sources: Authors computation from matched data set based on the propensity score.

Average treatment effect (ATE) is calculated for all the four outcome variables to visualise whether there is any difference in the performance between the experimental group and the control group (Table-3). Researchers in the subject have adopted this technique to study the impact of the treatment on the experimental group (Oh, Lee, Heshmati & Choi, 2009; Zecchini & Ventura, 2009; Asdrubali & Signore, 2015). Further the results are tested to know whether there is any significant difference in the performance between the two groups.

Table 3: Average treatment effect

Indicators / Outcomes	Employees (in Number)	Investment (Rs. In Lakhs)	Turnovers (Rs. In Lakhs)	Production (Rs. In Lakhs)
EG	115.34	215.77	440.60	295.54
CG	121.23	229.81	321.00	175.69
ATE	(5.89)	(14.04)	119.60	119.85

Source: Authors computation based on the matching set.

Note: * Negative figures represented in parenthesis.

Negative ATE for employment (5.89) and Investment (14.04 lakhs) show that the performance of the guaranteed firms in terms of employment generation and enhancement of investment in fixed assets is lower compared to their counterparts i.e non-guaranteed firm. On the other hand, Positive ATE for turnover (119.60 lakhs) and production (119.85 lakhs) exhibits that the performance of the guaranteed firms is higher than their counterparts non-guaranteed firm in terms of turnover and production. Similar results were found in earlier research (Oh, Lee, Heshmati & Choi, 2009) in terms of turnover. However, the use of lesser investment in fixed assets and human resources for a given turnover and production signifies that the guaranteed firms have gone for higher efficiency when it comes to asset and man power utilisation as compared to their non-guaranteed counterparts. Earlier research (Bradshaw, 2002) stated that the enhancement of production of goods and services contribute economic development of the nation. Similarly, CGS may be remarked as an effective instrument based on the positive result of ATE in terms of production.

Before coming to ponder over the reasons of such differential performance it is imperative to test whether the difference is significant or due to sampling fluctuation. Accordingly a two tailed t-test for two matched independent sample (treated group and control group) has been performed to be interpreted at 5% level of significance. The result of the test along with its impact on the rejection of our hypothesis is presented in Table 4.

As the computed p-value for employment, investment, turnover and production is greater than the significance level alpha=0.05, therefore one cannot reject the null hypothesis. Based on the evidence emerging out of the test we fail to reject all the four null hypotheses. The ATE found in case of the variables may be attributed to sampling fluctuation. On the basis of the computed p-value for the entire four outcome variables it is inferred that the there is no significant difference between the performance of scheme beneficiaries and non-beneficiaries on account of employment, investment, turnover and production.

Table 4: Test results (two-tailed t-test) for two independent matched samples

Outcome Variables	Observed t value	95% CI (lower, Upper)	df	p-value	Test Conclusion*
Employment	0.243	-1.328, 1.695	62	0.809	H_{01}Not Rejected
Investment	0.096	-874287.172, 962056.356	62	0.924	H_{02}Not Rejected
Turnover	-0.564	-1699425.179, 951906.017	62	0.575	H_{03}Not Rejected
Production	-0.677	-1480078.152, 730985.581	62	0.501	H_{04}Not Rejected

Note: *Non-significant (t-test results at 5% significance level).

The findings of this empirical study of the credit guarantee scheme in the state of Assam contradict the findings of the earlier research (Cowling and Clay, 1995; Garcia-Tabuenca& Crespo-Espert, 2010; Bradshaw, 2002; Riding and Haines, 2001; Oh, Lee, Heshmati& Choi, 2009 and Acharya, 2015; Asdrubali & Signore, 2015). Despite the contradiction with regard to difference in the performance between beneficiaries and non-beneficiaries one gets evidence to the fact that the access to credit has made it possible for those entrepreneurs to build their respective firms to the present size. Though the effectiveness of the credit guarantee scheme in terms of MSE's performance is not established but the scheme has worked to be a special instrument for beneficiaries to avail collateral free loan, who otherwise found difficult to avail collateral free loan from bank or other alternative sources.

Conclusion

Using primary data collected through a proper sampling procedure from 300 enterprises, we find that credit guarantee scheme participants' performance in terms of all the four variables do not significantly differ from that of their non participating counterparts. The differential performance observed on the basis of the computed ATE for all the variables is not statistically significant. The study, although suffers from the limitation of relatively small sample size. Since the result of the study contradicts the outcome of similar studies conducted in other part of the country and even outside India, further research is needed to ponder over the reasons of such divergence. The managerial implication that emerges out of this study is that the MLIs are to relook into their implementation programme to find if the associated service instrumental in improving the performance.

REFERENCES

Acharya, S.S. (2015). Evaluation of the efficacy of Indian credit guarantee scheme for MSMEs. (Doctoral Dissertation, KIIT University, 2015).

Ahmed, M.U. (1984).Financing rural industries in Bangladesh. *The Bangladesh Development Studies*, 12 (1/2), 59-79.

Asdrubali, P., & Signore, S. (2015). The economic impact of EU guarantees on credit to SMEs – Evidence from CESEE countries, EIF Working Paper, No. 2015/29, European Investment Fund (EIF), Luxembourg, Retrieved from http://www.eif.org/news_centre/publications/EIF_Working_Paper_2015_ 29.htm

Beck, T., & Demirguc-Kunt, A. (2006). Small and medium-size enterprises: Access to finance as a growth constraint, *Journal of Banking and Finance,* 30, 2931-2943.

Beck, T., Klapper L.F., and Mendoza, J.C. (2008). The typology of partial credit guarantee funds around the World, *Policy Research Working Paper 4771*, The World Bank, Washington D.C. Retrieved from http://elibrary.worldbank. org/doi/pdf/10.1596/1813-9450-4771

Bhattacharya, A. (2008). Bringing academic rigour to the field of entrepreneurship in India. *Economic and Political Weekly , 43(39)*, 87-95.

Bhavani, T.A., & Bhanumurthy, N.R. (2014). Financial access - measurement and determinants: A case study of unorganised manufacturing enterprises in India. *Indian Economic Review , 49(1)*, 85-108.

Blundell, R., & Dias, M.C. (2000). Evaluation methods for non-experimental data. *Fiscal Studies*, 21(4), 427-468.

Bradshaw, T.K. (2002). The contribution of small business loan guarantees to economic development. *Economic Development Quarterly*, 16(4), 360 – 369.

Canaan, S.P. (2011). The determinants of expansion of SME under a partial credit guarantee scheme: Case of Lebanon, working paper no 624, Economic Research Forum, Egypt.

Cowling, M., & Clay, N. (1995). Factors influencing take-up rates on the loan guarantee scheme. *Small Business Economics,* 7(2), 141-152.

Credit Guarantee Fund Trust for Micro and Small Enterprises (2017). 17 years in the service of MSEs. Retrieved from https://www.cgtmse.in/files/CGTMSE_Booklet_updated_as_on_October_31_2017.pdf

Devinaga, R., & Tan, T.M. (2012). Review of credit guarantee corporation Malaysia (CGCM) initiatives to enhance small and medium enterprises performance. *International Journal of Business and Management*, 7(20), 101-111.

Garcia-Tabuenca, A., & Crespo-Espert, J.L. (2010). Credit guarantee and SME efficiency. *Small Business Economics,* 1, 113-128.

Haviland, A., Nagin, D.S. & Rosenbaum, P.R. (2007). Combining propensity score matching and group-based trajectory analysis in observational study. *Psychological Methods*, 12(3), 247-267.

Hughes, A.(1997). Finance for SMEs: A U.K. perspective, *Small Business Economics,* 9(2), 151-166.

Koh, E., & Testa, M. (2008). Propensity score matching of children in kinship and no kinship foster care: Do permanency outcomes still differ? *Social Work Research, 32*(2), 105-116. Retrieved from http://www.jstor.org/stable/42659676

Mthimkhulu, A. M., & Aziakpono, M. J. (2012). Do credit guarantee schemes address credit market failures for small businesses? Preliminary evidence from South Africa. Paper presented at Africa Development Finance Workshop. Cape Town: University of Stellenbosch Business School.

National Credit Guarantee Trustee Company Ltd (2017). Credit guarantees bulletin first edition-march 2017. Retrieved from https://www.ncgtc.in/sites/default/files/publications/NCGTC_Journal_Vishwas.pdf

Oh, I., Lee, J.D., Heshmati, A., & Choi, G.G. (2009). Evaluation of credit guarantee policy using propensity score matching, *Small Business Economics, 33(3), 335-351.*

Rahiman, P.A.(2010). A study of the credit guarantee fund trust for micro and small enterprises with particular reference to Bank of Baroda in state of Kerala. (Doctoral Dissertation, Cochin University of Science & Technology, 2010).

Reserve Bank of India (2010). Report of the working group to review the credit guarantee scheme of the credit guarantee fund trust for micro and small enterprises. Retrieved from https://rbidocs.rbi.org.in/rdocs/Publication Report/Pdfs/FRWG060310.pdf

Riding, A., and G. Haines (2001). Loan guarantees: Cost of default and benefits to small firms. *Journal of Business Venturing*, 16(6), 565-612.

Riding, A., Mudill, J., & Haines, G. (2007). Incrementality of SME loan guarantees. *Small Business Economics,* 29(1/2), 47 – 61.

Rosenbaum, P., & Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika* 70(1), 41-55.

Rubin, D. B. (1974). Estimating causal effects of treatments in randomized and non-randomized studies. *Journal of Educational Psychology*, 66, 688-701.

Saikia, H. (2012). Measuring financial performance of small scale industries: Some evidences from India. *Journal of Applied Economics and Business Research*, 2(1), 46-54.

Salwan, P. (2012). Co-creation:An exploratory study of MSMEs and large banks in India. *Indian Journal of Industrial Relations , 48(1)*, 1-18.

Sarda, D.P. (2008). Credit guarantee for micro and small enterprises. *Bank Quest, 79(2), 34-40.*

Singh, C., & Wasdani, K. P. (2016). Finance for micro, small, and medium-sized enterprises in India: Sources and Challenges. ADBI Working Paper 581. Tokyo: Asian Development Bank Institute. Retrieved from: http://www.adb.org/publications/finance-micro-smalland-medium-sized-enterprises-india-sources-and-challenges/

Small Industries Development Bank of India (2016). 2015-16 Annual report of small industries development bank of India.

Tunahan, H., & Dizkirici, A.S. (2012). Evaluating the credit guarantee fund (kgf) of Turkey as a partial guarantee program in the light of international practices. *International Journal of Business and Social Science,* 3(10), 79 – 92.

33. Uesugi, I., Sakai, K., & Yamashiro, G.M. (2008).The effectiveness of public credit guarantees in the Japanese loan market. RIETI Discussion Paper series 06-E-O4. Retrieved from http://www.rieti.go.jp/jp/publications/dp/06e004.pdf

Yadav, R.J.(2015). Competitive augmentation of small business in a globalized economy – A study on MSE finance by banks in India. *Management Accountant*, 50(1), 20-29.

Zecchini, S., & Ventura, M.(2009). The impact of public guarantees on credit to SMEs, *Small Business Economics,* 32(2), 191-206.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Perceived High Performance Work System and Intention to Leave: Role of Well-being and Mentoring

JEEVAN JYOTI, ASHA RANI AND SUMEET KOUR

Abstract: The primary purpose of this study is to evaluate the indirect impact of perceived high performance work system (HPWS) on intention to leave through well-being. Besides this, the interaction effect of perceived HPWS and mentoring on well-being has also been evaluated. Census method has been used to collect the data from employees working in private telecommunication organisations in north India. Confirmatory factor analysis has been used to confirm the factors that emerged after EFA. The confirmed factors have been duly checked for their reliability and validity. The data have been bootstrapped to verify and generalise the results. Structural equation modeling has been used to test the hypothesised relationships. Further, the study found that interaction effect of perceived HPWS and mentoring on intention to leave is mediated by well-being (significant conditional indirect effect).

Key Words: High performance work system, mentoring, well-being, intention to leave, structural equation modeling.

Introduction

The emerging or growing economies are pushing organisations towards competitive environment. Organisations derive their competitive advantage from tangible and intangible resources like human resource, financial, informational and technologies (Yazid, Yahya, Ishak & Achim, 2017). Amongst these organisation have shown great interest in studying and managing the human resource as they are the valuable, unique, rare and un-substitutable (Cappelli & Singh, 1992). Managing workforce is a challenging task in the era of intense market competition and rise in market share globally (Timiyo, 2014). Organisations cannot build a good team of working professionals without good human resource. To meet the cutting edge competition and survive in dynamic world, organisations have to discover new ways and means for organising employment and work (Jyoti & Rani, 2017). In this perspective HPWS helps organisation to deal with these problems (Huselid, 1995). HPWS enhances organisational effectiveness by

Jeevan Jyoti is Assistant Professor, PG Department of Commerce, University of Jammu; Asha Rani is Research scholar, PG Department of commerce, University of Jammu and Sumeet Kour is Assistant Professor, Cluster University of Jammu, Jammu

developing such environment, where managers/employees are massively involved in the organisation and work hard to attain its goals (Munteanu, 2014). HPWS consists of bundle of high performance practices (HPWPs) covering three broad areas namely a) high employee involvement practices (e.g. quality circles, self-directed teams and sharing of company information) b) human resource practices (e.g. sophisticated recruitment process, mentoring, performance appraisal and work redesign) c) reward and commitment practices (e.g. financial rewards, job rotation, flexi hours, family-friendly politics) (Sung & Ashton, 2005). Therefore, HPWS is the combination of human resource practices that facilitate employee involvement, stronger motivation and skill enhancement (Ozcelik et al., 2016). HPWS emphasise the yieldor productivity that leads to more job demands and in turn increases job strain (Gulzar et al., 2014). It boosts employee to develop new skill and motivate them to learn in order to increase efficiency and productivity, which in turn leads to organisational success (Jyoti & Rani, 2017). Earlier studies have empirically proved that HPWS leads to better organisational performance and contributes to organisational success (Guthrie, 2001; Batt, 2002). Studies have revealed positive effect of HPWS on organisational performance (Zhang & Morris, 2014; Choi & Lee, 2013; Karatepe & Vatankah, 2014).

But still little is known about how human resource practices transform into competitive success (Savaneviciene & Stankeviciute, 2010). The transformation process between human resource management practices and performance relationship still remains indefinable phenomenon to certain extent (Marchington & Grugulis, 2000). Frequently, known as the 'black box', the intervening link that is present between the input of best HR practices and output of good organisational performance is still not clearly recognised (Ferris et al., 2004; Hope-Hailey et al., 2005; Wright & Haggerty, 2004). The mechanism and working of 'black box' still remain mysterious and unknown (Boseli et al., 2005; Chahal, Jyoti & Rani, 2016). There are various mediating and moderating variables that help to reduce the gap between human resource practices and its outcomes (Boseli et al., 2005). The efforts to open the black box are connected to Wright and Gardner (2003) question: how many boxes should be taken into account while studying the HR practices-Performance linkage (Paauwe & Boselie, 2005). There is no consensus regarding the answer to the former question. But a number of conceptual models (Becker, Huselid, Pickus, Spratt, 1997; Guest, 1997; Purcell, Kinnie, Hutchinson, Rayton, Swart, 2003; Wright, Nishii, 2006) indicate the causal pathway between HR practices and firm performance are present in scientific literature (Savaneviciene & Stankeviciute, 2010). The main purpose of these models is to reveal the logic of HR practices-Performance linkage pointing mediating and moderating variables and their impact.

Human resource literature indicated that human capital provides companies with competitive advantage (Luthans & Youssef, 2004). Therefore, placing employees' well-being at centre of human resource strategy in the twenty-first century is very important (Kowalski & Loretto, 2017). Well-being includes both personal and organisational implications that need consideration if organisations want sustainable workforce (Kowalski & Loretto, 2017). Sustaining a healthy and productive workforce continues to be relevant, and ever more challenging, in current times in light of constant changes to organisations and the extensive environment (Kowalski, Loretto, & Redman, 2015).The growing awareness about employees' well-being at work has arose against the backdrop of the general drop in nature of workplace ill health resultant of physical, psychosocial and personal factors (Baptiste, 2007) that result in higher employee turnover. Well-being at work influences employees' feeling and thinking pattern about their organisation and job (Tov & Chan, 2012). Happy and satisfied employees follow organisations' rules and regulations, extend their viewpoints to improve organisational health, support their co-workers and work in team to achieve group goals (Tov & Chan, 2012). Therefore, if HPWS is designed in such a way that improves or focuses on the well-being of the employee then the employees will have lower intention to leave. If the employees are not in good state of mind and health, this is likely to result in unsuccessful performance (Economic and Social Research Council, 2006) and higher intentions to leave.

Poor health has negative impact on the thinking and feeling of the employees. It leads to stress, depression, anxiety and other mental health conditions among the employees, which increases the quitting intentions of the employees. In short well-being of employees is very important for enhancing the staying intentions and mentoring plays an important role. Mentoring helps to decrease the negative consequences and enhance the positive consequences of HPWS. Mentoring not only provide work-related benefits but also provide employees with chance to increase cultural awareness, aesthetic appreciation and the potential to lead meaningful lives. Mentoring helps organisation to see their employees more individually and attain knowledge of their own needs as well as their work (Christa, 2011). Mentoring reduces judgment attitude, stress and depression among the employees of the organisation, which improves the well-being (Pluchevskaya, Burmakova & Varlacheva, 2015) and lowers intention to leave.

Research Gap

Review of literature has revealed limited research on the mediating and moderating role of well-being and mentoring between HPWS and intention to leave (Table 1). We have reviewed 77 papers on HPWS/high involvement work system/high performance human resource practices/ innovative human resource practices/strategic human resource practices and its outcome. Out of which, 10 papers have focused on intention to leave/intention to quit/turnover intention and only 3 studies that checked job satisfaction (component of well-being) as mediator between HPWS and intention to leave, ignoring other components of well-being i.e. work-life balance and life satisfaction (Ang et al., 2013; Garcia-Chas et al., 2014; Kloutsiniotis & Mihail, 2017). There is dearth of research regarding the mediating role played by overall well-being between HPWS and intention to leave. Further, limited research has been conducted on the variable such as mentoring that strengthens the positive outcomes of HPWS in terms of well-being. Therefore, the present study tries to explore the two black-boxes between perceived HPWS and its consequences. The first black box is mentoring (moderator) which is explored between perceived HPWS and well-being (mediator). The second black box is well-being, which is explored between perceived HPWS and intention to leave. Hence, the present study examines the impact of perceived HPWS on employee's well-being. The study also analyses the impact of well-being on intention to leave. Further, the study explores the moderating role of mentoring between perceived HPWS on employees' well-being. The conceptual model is shown in figure 1:

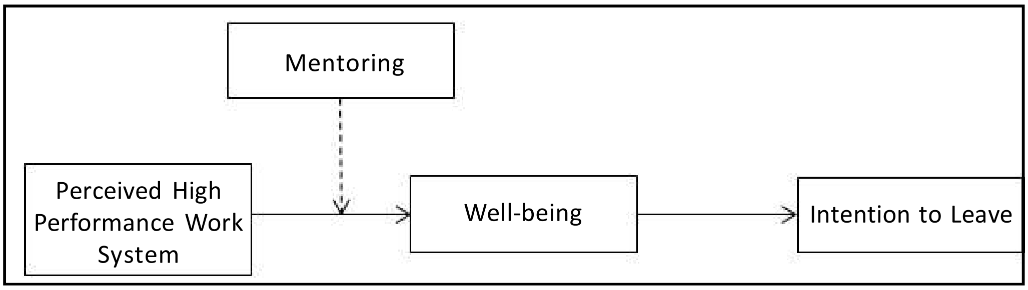

Fig.1: Coneptual Model

Literature Review and Hypotheses Development

In order to check the conceptual model following hypotheses have been framed:

Perceived HPWS and Well-being

Well-being is the concepts of positive human health and psychological well-being (Fry et al., 2005). It is answer to life satisfaction and perception of the intensity and frequency of positive emotions (Argyle, 1987 cited in Chang, Chiu & Liu, 2017). Earlier research (Huang et al., 2016; Fan et al., 2014; Zhang, Zhu, Dowling & Bartram, 2013) suggests that HPWS enhances the well-being of the employees. It provides needed knowledge and skills, adequate incentives and essential support and opportunities to contribute in decision-making that make the employees feel valuable and experience higher job satisfaction (component of well-being) (Fan et al., 2014). Further, flexible human resource practices like flexi-place, flexi-time allow employees to adjust their work hour and place as per their social requirements that result in higher level of job satisfaction (Boxall & Macky, 2009), work-life balance (Croucher & Rizov, 2015), and life satisfaction. Further, there are also studies which revealed human resource practices negatively effects employee's well-being (Godard, 2004; 2001; Ramsay et al., 2000). Therefore, there are two competing views about the effect of HPWS on well-being i.e., unitarist view and pluralist view. According to unitarist view organisational goals are aligned with employees' interest, hence management and employees work collectively towards the shared common goals (Zhang, Zhu, Dowling & Bartram, 2013). They viewed that HPWS are universally applicable and are in the favour of both management and employees (Bartel, 2004; Appelbaum et al., 2000; Freeman & Kleiner, 2000). Therefore, for unitarists HPWS positively affects employee' well-being (Osterman, 2000). Whereas pluralist view adopt negative perspective that HPWS negatively influences employee's well-being (Green, 2006; Godard, 2004; 2001; Ramsay et al., 2000; Legge, 1995). Pluralists beliefs that organisational goals are not always aligned with employees well-being and focuses on negative impact of human resource practices on employees' well-being (Boxall & Purcell, 2011; Janssens & Steayaert, 2009; Paauwe, 2009; Keenoy, 1997). Pluralists argued that HPWS practices follow high organisational performance, which increases job demands thereby leading to job dissatisfaction, emotional exhaustion, stress and work disengagement (Godard, 2001; Ramsay et al., 2000;). Therefore, there is no consensus of the relationship between human resource practices and employees well-being.

Hypothesis 1: HPWS positively affects well-being.

Well-being and Intention to Leave

Intention to leave is the conscious and deliberate willingness to leave the organisation (Tett & Meyer, 1993). It is the behavioural intention of a worker to voluntarily leave his profession, job or organisation (Coomber & Barriball, 2006). The amount of employees' attachment to their organisations effects many significant and valuable organisational and personal consequences, such as in-role and extra-role performance, withdrawal behaviours, job satisfaction and well-being (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Rhoades & Eisenberger, 2002; Riketta, 2005; Ng & Sorensen, 2008; Riggle, Edmondson, & Hansen, 2009).Well-being plays a vital role in an organisation to lessen the number of turnover intention (Amin & Akbar, 2013; Brunetto, Shacklock, Teo & Farr-Wharton, 2014; Singh, Burke & Boekhorst, 2016). When an organisation make their employees comfortable, happy and provide them good state of health they are lesser intentions to leave the organisation. Boxall (2003) by conducting meta-analysis revealed that employers care for employee's well-being negatively affects the quitting intentions. Intention to leave can be reduced if the employees feel that organisation meet the needs and improve the psychological well-being (Sears, Shi, Coberley & Pope, 2013; Amin & Akbar, 2013). Robertson and Cooper (2011) revealed that employee well-being enhances service to customers, profitability, and reduced employee turnover and absenteeism. Lower job satisfaction causes employees experience poor sense of belongingness and search for alternative jobs (Basak et al., 2013). When an organisation provide their employees a good and safe working condition they are less likely to experience negative mood and appraise one's life as good (life satisfaction), which in turn reduce their quitting intentions. Therefore, it can be concluded that well-being negatively impacts intention to leave.

Hypothesis 2: Well-being negatively affects intention to leave.

Perceived HPWS, Well-being and Intention to Leave

As discussed in the above, Perceived HPWS positively affects well-being (H1), which in turn negatively affects the intention to leave (H2). High performance work practices such as recruitment, selection, compensation, appraisal, training, empowerment etc. helps to create quality environment in the organisation (Macky & Boxall, 2007; 2008), which reduces the quitting intentions of the employees. Human resource practices offers employees the facility to work from home that enable them to timely complete their job (Rana & Javed, 2017), which enhances job satisfaction thereby reducing intention to leave. HPWS provides training to the employees to enhance their skills and empowers them to do particular work at a particular time, which reduces the work conflict, fatigue, mental pressure (Jyoti et al., 2015) and increases life and job satisfaction among employees thereby decreasing the turnover intentions. Good HPWS promotes well-being of the employee of the organisation, which in turn reduces quitting intentions. HPWS focuses on motivating employees by giving them intrinsic rewards that decreases stress among them (Torre, 2012) and improves well-being, which further reduce intention to leave. Therefore, it can be concluded from above discussion that perceived HPWS positively affect well-being, which further impact intention to leave.

Hypothesis 3: Well-being mediates between perceived HPWS and intention to leave relationship.

Perceived HPWS, Mentoring and Well-Being

In HPWS, employees get better wages and salary due to performance-based compensation (Harley, 2002), which helps them to fulfill their social needs appropriately. Further, flexible human resource practices like flexi-time, flexi-place (Croucher & Rizov, 2015; Boxall & Macky, 2009) allow employees to adjust their work hour and place as per their social requirements that result in higher level of job satisfaction (Boxall & Macky, 2009), work-life balance (Croucher &

Rizov, 2015), and life satisfaction. Further, HPWS provide recognition, reward, and training to the employee that encourages them to do their job with passion (Young et al., 2010). In this backdrop, the psycho-social functions of mentoring boost the impact of these practices (flexible HR practices) on employees' well-being. Further, the provision of career path in the HPWS coupled with career-related mentoring functions results in high level of job satisfaction as well as life satisfaction. Mentors, who exhibit the characteristics of a role model in terms of addressing the work and life-related issues also motivate the mentees/employees to put extra effort to establish the work and life balance (Jyoti & Sharma, 2017). Additionally, coaching, exposure, challenging tasks (career-related mentoring functions) enhance ability and effectiveness of the mentees (Jyoti & Sharma, 2017). The protective techniques and behaviours (shield from untimely or damaging contact with key players) adopted by mentor help mentees learn new skills and tactics that enhance employees'/mentees' job satisfaction. Performance counseling develops employees' problem-solving and decision-making skills that enhance employees' job satisfaction level. Mentors' friendly attitude and role model characteristics also enhance job satisfaction. Mentoring functions like role modeling, acceptance and friendship (Jung & Tak, 2008; Lentz & Allen, 2009) also results in higher job satisfaction and life satisfaction. The mentors' act as a role model plays a vital role in value and character building for mentees (Bhandarker & Singh, 1999) and generates a sense of satisfaction among the mentees. Jyoti and Sharma (2017) revealed that mentee/employee is more satisfied when mentor/supervisor encourages their mentee to open up freely and welcome their opinions at the work place. From the above discussion, it can be concluded that mentoring support in association with performance-based compensation, flexible HR practices and recognisition for good work (components of HPWS) will result in high job satisfaction, life satisfaction and work-life balance (component of well-being). Hence, the interaction of HPWS with mentoring improves employees' well-being.

Hypothesis 4: The interaction of perceived HPWS and mentoring will enhance employees' well-being.

Research Design and Methodology

Generation of Scale Items

Perceived HPWS Measure

Perceived HPWS comprised three dimensions, namely, ability, motivation and opportunity (as recommended by Jiang et al., 2013) . Ten items of ability (Sample item: Needbased training is provided to the employees) have been taken from Jensen et al. (2013), wei et al. (2010), Pare and tremblay (2007). Fourteen items of motivation (Sample item: Inhouse promotions are given first preference) have been generated from Jensen et al. (2013), Chi and Lin (2011), Russell (2009); Conway and Monks (2008). Twelve items of opportunity (Sample item: Employees participate in departmental meetings) have been adopted from Kroon et al. (2013), Jensen et al. (2013), Chi and Lin (2011), Wei et al. (2010), Conway and Monks (2008), Gardner et al. (2011). (á = 0.958).

Well-Being

Well-being has been measured through job satisfaction, work-life balance and life satisfaction. Nine items has been used to measure the job satisfaction (Griffin et al., 2010; Thompson & Prottas, 2006). The sample item of this scale is "Sample item: I am always enthusiastic about my job. Seven items has been used to assess the work-life balance (Valcour, 2007; Keeton et al., 2007). The sample item is "My job allows me to balance the needs of my job with those of my personal or family life." Further, life satisfaction has been measured with the help of sixteen items (Sharma & Jyoti, 2006). The sample item is "Deriving purpose and meaning in life". (á = 0.942)

Mentoring

Fifteen items of mentoring have been adapted from Scandura and Ragins (1993). The sample item is "I discuss my problems with my mentor". (á = 0.920)

Intention to leave

Intention to leave has been measured with the help of eleven items, which adapted from Watty-Benjamin and Udechukwu (2014); Glambek et al. (2014); Jyoti (2013); Vanderpool and Way (2013). The sample item is "I am planning to search for a new job during the next 12 months" (á = 0.971).

Data Collection

The population consisted of 2,728 employees working in six private telecommunication (Airtel, Aircel, Idea, Reliance, Vodafone, Tata-indicom) located in North India. Out of 2,728, only 702 employees returned back the questionnaires. The response rate is 25%. Further, the data has been checked for normality with the help of box plots, which revealed 57 outliers that have been excluded from the sample. The responses of 645 employees have been used for the analysis. Besides this, skewness and kurtosis have been used to check the normality of the data. The value of skewness (0.312) and kurtosis (0.754) established the normality of data.

Table 1: Literature review

Sl. No.	Authors	Predictor	Outcome Variables	Mediators	Moderators
1.	Harris and Ogbonna (2001)	Strategic human resource Management	Organisational performance	Market orientation	....
2.	Evans and Davis (2005)	High-performance work systems	Organisational performance	Internal social structure	....
3.	Zacharatos et al. (2005)	High-performance work systems	Occupational safety	Trust in management and perceived safety climate	....
4.	Kintana et al. (2006)	High-performance work systems	Firms' operational performance	....	Technological intensity of the industry
5.	Macky and Boxall (2007)	High-performance work practices	Trust in management, and organizational commitment (affective commitment and behavioural commitment)	Job satisfaction	....
6.	Pare and Tremblay (2007)	High-Involvement human resources practices	Turnover intentions	Procedural justice, affective and continuance commitment, and citizenship behaviours	....

Contd...

Contd...

7.	Sun et al. (2007)	High performance human resource practices	Organisational performance (productivity and turnover)	Service-oriented organizational citizenship behaviour (OCB)	Unemployment rate and business strategy (service quality)
8.	Takeuchi et al. (2007)	High performance work systems	Overall establishment performance	Collective human capital and establishment social exchange	....
9.	Beltran-Martin et al. (2008)	High performance work systems	Organizational performance	Human resource flexibility	....
10.	Camps and Luna-Arocas (2009)	High involvement work practices	Firm Performance	Organizational structure	....
11.	Chen and Huang (2009)	Strategic human resource practices	Innovation performance	....	Knowledge management
12.	Kroon et al. (2009)	High-performance work practices	Burnout (Emotion exhaustion)	Procedural justice and job demands	....
13.	Qiao et al. (2009)	High-performance work systems	Organizational commitment	....	gender and marital status
14.	Wu and Chaturvedi (2009)	High performance work systems	Employee attitudes (affective commitment and job satisfaction)	Procedural justice	Power distance

Contd...

Contd...

15.	Akong'oDimba (2010)	Strategic human resource management	Firm performance	Employee motivation	....
16.	Gong et al. (2010)	High performance work system	Collective OCB	Collective AC	....
17.	Wei and Lau (2010)	High performance work systems	Firm performance	Adaptive capability	....
18.	Wei et al. (2010)	High-performance human resource (HR) practices	Organizational citizenship behaviour	Job satisfaction	....
19.	Young et al. (2010)	High performance work systems	Employee well-being (affective commitment and job satisfaction)	Social identification	....
20.	Zhang and Jia (2010)	High performance work practices	Corporate entrepreneurship	Perceived organizational support	....
21.	Dizgah et al. (2011)	High performance human resource practices	Corporate entrepreneurship	Citizenship behaviour and procedural justice	....
22.	Messersmith et al. (2011)	High-performance work systems	Department performance	Organisational citizenship behaviour (OCB)	....
23.	Sherazi et al. (2013)	High performance work systems	Organization performance	Organizational citizenship behavior	....

Contd...

24.	Chan and Mak (2012)	High performance human resource practices	Organizational performance	Occupational safety and health	....
25.	Khasawneh and Alzawahreh (2012)	High-performance work practices	Organisational performance.	Organisational innovation	....
26.	Martinez-del-rio et al. (2012)	High-involvement work practices	Firm performance	Proactive environmental strategy	....
27.	Patel and Conklin (2012)	High-performance work systems	Perceived labour productivity	Employee retention	....
28.	Wood et al. (2012)	High performance work system (enriched job design and high involvement management)	Organisational performance	Job satisfaction and well-being	....
29.	Ang et al. (2013)	High-performance work systems	Affective commitment and intention to leave	Burnout (Engagement) and job satisfaction	....
30.	Hassan et al. (2013)	High performance work practices	Employee loyalty and financial performance	Employee satisfaction	....
31.	Jensen et al. (2013)	High-performance work systems	Turnover Intentions	Anxiety and role overload	Job control
32.	Karatepe (2013)	High-performance work practices	Employee performance	Work engagement	....

Contd...

33.	Kizilos et al. (2013)	High-involvement work processes	Organization performance behaviour	Organizational citizenship	....
34.	Patel et al. (2013)	High-performance work systems	Firm growth	Organizational ambidexterity	....
35.	Shih et al. (2013)	High performance work system	Host country nationals performance	Relational psychological contract and work involvement	....
36.	Wang and Chen (2013)	High-performance work systems	Bilateral innovative capabilities (incremental and radical innovative capabilities)	Intellectual capital (organizational and social capital)	....
37.	Bartram et al. (2014)	High performance work systems	Psychological empowerment and patient care	Social identication	....
38.	Fan et al. (2014)	High performance work Systems	Employee subjective well-being and job burnout	....	Organisational based self-esteem (OBSE)
39.	Garcia-Chas et al. (2014)	High-performance work systems	Intention to leave	Job satisfaction, procedural justice and intrinsic motivation	....

Contd...

Contd...

40.	Karatepe and Vatankah (2014)	High-performance work practices	Performance outcomes (creative performance (CP) and extra-role customer service (ERCS).	Job embeddedness	....
41.	Zhu and Chen (2014)	High performance work systems	Employee creativity	Knowledge sharing	....
42.	Zhang and Morris (2014)	High performance work system	Organizational Performance	Employee Outcomes	Size, age, ownership and business sector
43.	Dhar (2015)	High performance human resource practices	Service innovative behaviour	Organisational commitment	....
44.	Fu et al. (2015)	High performance work Systems	Organisational innovation	Employees' innovative work behaviour	....
45.	Ghosh and Gurunathan (2015)	Commitment based human resource practices	Intention to Quit	Job embeddedness	....
46.	Jyoti et al. (2015)	Bundled high-performance human resource practices	Intention to leave	Emotional exhaustion	....
47.	Lu et al. (2015)	High-performance human resource management (HRM)	firm performance	innovation	....
48.	Michaelis et al. (2015)	high-performance work systems	Workforce productivity	Knowledge exchange and combination	....

Contd...

Contd...

49.	Oliveira and Silva (2015)	High performance work systems	Employee engagement and turnover intention	....	Leader-member exchange quality
50.	Akhtar et al. (2016)	High performance work practices	Employees' performance	Employee engagement	....
51.	Carvalho and Chambel (2016)	High-performance work systems	Subjective well-being	Work-to-family balance and well-being at work	....
52.	Chahal et al. (2016)	High performance human resource practices	Business performance	Organisational learning	....
53.	Chen et al. (2016)	High performance work system	Job satisfaction and task performance	Psychological efficacy	....
54.	Cooke et al. (2016)	High-performance work systems	Employee engagement	Employee resilience	....
55.	Van Esch et al. (2016)	High-performance human resource (HR) practices	Firm performance	Employees' Competencies	Climate for creativity
56.	Garcia-Chas et al. (2016)	High-performance work systems	Job satisfaction	Perceived organizational support	Intrinsic motivation
57.	Gkorezis et al. (2016)	High-performance work practices	Intention to Leave	Organizational cynicism	Human resource management-related educational background

Contd...

58.	Hadipeykani et al. (2016)	High-performance work system	Workforce productivity	Organizational cynicism	....
59.	Heffernan and Dundon (2016)	High-performance work systems	Job satisfaction, affective commitment and work pressure	Employee perceptions of distributive, procedural and interactional justice	....
60.	Huang et al. (2016)	High performance work systems	Job involvement	Employee well-being	....
61.	Jeong and Choi (2016)	High-performance work systems	Firm performance	....	HR function's influence
62.	Kilroy et al. (2016)	High-involvement work practices	Burnout (emotional exhaustion and depersonalization)	Person-organisation fit	....
63.	Kilroy et al. (2016)	High-involvement work practices	Burnout	Job demand (role-conflict, role overload and role ambiguity)	....
64.	Jyoti and Dev (2016)	High-performance work system	Employee performance	Learning orientation	Self-efficacy
65.	Latorre et al. (2016)	High commitment HR practices	Job performance	Perceived organizational support	....

Contd...

66.	Lee et al. (2016)	High performance work systems	Organisation attraction	....	Job applicants' social vocational interest
67.	Lin and Liu (2016)	High-performance work systems	Organizational service performance	Service climate	Flexibility climate
68.	Muduli et al. (2016)	High performance work system	Organisational performance	Employee engagement	....
69.	Oppenauer and Voorde (2016)	High involvement work system practices	Emotional exhaustion	Work overload and job responsibility	....
70.	Yousaf et al. (2016)	High commitment human resource management	Organisational and occupational turnover intentions	Organisational commitment	Occupational commitment
71.	Zehir et al. (2016)	Strategic human resources management (SHRM)	Innovation performance	Global Capabilities	....
72.	Zehir et al. (2016)	Strategic human resource management	Firm performance	Entrepreneurial orientation	....
73.	Ali et al. (2017)	Strategic human resource management	Organizational performance	Employee relations climate	....
74.	Escriba-Carda et al. (2017)	High-performance work systems	Innovative behaviour	Exploratory learning	....

Contd...

Contd...

75.	Kloutsiniotis and Mihail (2017)	Innovative human resource practices	Affective commitment and intention to leave	Employees' engagement and job satisfaction	....
76.	Ogbonnaya et al. (2017)	High-performance work practices	Employee health and well-being	Work intensification	....
77.	Vatankhah et al. (2017)	High-performance work practices	Counter-productive work behaviour	Perceived organizational support	....

Results

Common Method Variance

The self-reported nature of data can cause the problem of common method variance (Podsakoff et al., 2003). Harman's one-factor test has been applied to remove this problem. The Principal Component Factor analysis revealed that single factor is accounting for only 21% variance, which is very less than the prescribed limit i.e. 50% (Podsakoff et al., 2003).

Exploratory Factor Analysis

To identify the factors of different scales used in the present study, exploratory factor analysis has been applied. EFA resulted in multi-factor solution for perceived HPWS factors, 25 items), mentoring (1 factor, 9 items), job satisfaction (1 factor, 9 items), work-life balance (1 factor, 7 items), life satisfaction (1 factor, 12 items) and intention to leave (1 factor, 8 items). The values of KMO for all the scales are above 0.70 and total variances explained by all the scales are above sixty per cent (Hair et al., 2010). The detailed results are given in Table 2.

Table 2: Result of exploratory factor analyses

Factor	VE (%)	Eigen Values	KMO Values
Ability	22.160	5.540	.952
Motivation	28.873	5.968	
Opportunity	22.471	5.618	
Total VE by HPWS	68.504		
Job Satisfaction	25.931	7.261	
Work-Life Balance	19.765	5.534	
Life Satisfaction	16.115	4.512	.934
ME	61.065	5.496	.920
ITL	81.216	6.497	0.956

Key: HPWS-High Performance Work System, WB-Well-Being, ME -Mentoring; ITL-Intention to Leave.

Measurement Validation

Zero-order models have been generated for mentoring, job satisfaction, work-life balance, life satisfaction and intention to leave as single factor emerged for each after EFA (Table 3). Second-order factor models have been designed for perceived HPWS as multiple factors emerged after EFA (Hair et al., 2010) (Table 3). Comparison of four factor model (÷2/df=1.802, GFI=0.859, AGFI=0.849

NFI=0.898, RFI=0.894, CFI=0.952 and RMSEA=0.035) and one factor model (÷2/ df=1.887, GFI=0.853, AGFI=0.843 NFI=0.893, RFI=0.889, CFI=0.947 and RMSEA=0.037) revealed better fit indices for four factor model, which proved the discriminant validity. Besides this, discriminant validity has been checked by comparing the average variance extracted (AVE) with squared correlation between the constructs used in this study (Hair et al., 2010). The AVE of each construct is greater than the squared correlations, which also confirmed the discriminant validity (Table 4). Further, standardised estimate (>0.5) and average variance extracted (>0.5) proved convergent validity. Besides this, cronbach's alpha and composite reliability have been used to check the reliability. The value of cronbach's alpha is greater than 0.70, which is given in above (pp 9-10). Further, the value of composite reliability for all the constructs is above 0.70 (perceived HPWS=0.979; well-being, mentoring=0.886 and intention to leave = 0.939).

Table 3: Confirmatory factor analysis results of HPWS, well-being, and mentoring

Constructs	÷²/df	GFI	AGFI	NFI	RFI	CFI	RMSEA
ME	2.923	0.906	0.887	0.923	0.914	0.948	0.055
JS	2.977	0.984	0.960	0.985	0.970	0.990	0.055
WLB	1.965	0.996	0.979	0.998	0.992	0.998	0.039
LS	2.058	0.980	0.963	0.985	0.977	0.992	0.041
ITL	2.584	0.983	0.965	0.987	0.979	0.992	0.050
HPWS	3.336	0.977	0.956	0.977	0.965	0.983	0.060

Table 4: Discriminant validity

Construct	HPWS	WB	ME	ITL
HPWS	0.656			
WB	(.269)	.519**	0.661	
ME	(.001).023	(.002).016	0.613	
ITL	(0.094)-.307**	(0.070)-.265**	(0.002)-.041	0.661

Note: Diagonal axes show the AVE and the values below the diagonal axes are squared correlations between the constructs

Hypotheses Testing

Direct Relationship

Perceived HPWS and well-being significantly and positively affects well-being (SRW= 0.744, p<.001), which provides the support for hypothesis 1. Well-being significantly and negatively affects intention to leave (SRW = -.502, p<.001), which is in line with previous studies (Lu & Gursoy, 2016). Thus, the hypothesis 2 stands supported.

Test of Mediation

In the present study, well-being as a mediator between perceived HPWS and intention to leave. Hayes (2013) methodology has been used to check the mediation. Bahli and Rivard (2013) viewed that this approach directly addresses the mediation, therefore it is more powerful than stepwise procedure of Baron

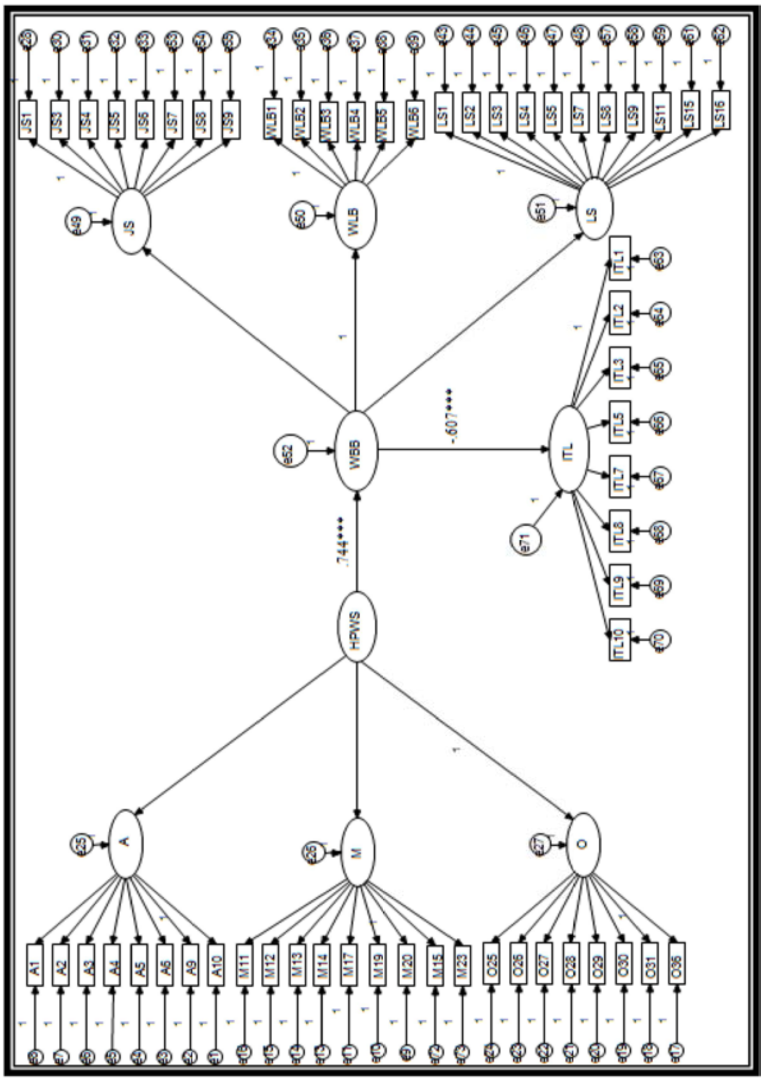

Fig. 2: Structural model

and Kenny (1986). Hayes (2013) revealed that mediation effect exists when indirect effect is significant and absence of zero value between bias corrected confidence interval for upper and lower bound. Therefore, structural equation modeling in AMOS has been used to estimate indirect effect with 1000 bootstrap at 95% confidence interval. The results revealed that perceived HPWS significantly affects well-being (SRW= 0.744, p<.001) and well-being significantly and negatively affects intention to leave (SRW= -0.607, p<.001) (Figure 2). Bootstrap of 1000 sample at 95% confidence interval revealed significant indirect effect (SRW= -0.451, p<.001) between perceived HPWS and intention to leave relationship (Table 5). Besides this, sobel statistics (-3.630, p< 0.01) is also significant, which provided support for indirect impact of perceived HPWS on intention to leave.

Further, evaluated the dimension-wise mediation of well-being between perceived HPWS and intention to leave relationship. The results showed that the indirect effect of each dimensions of well-being, namely, job satisfaction (SRW= -.258***, Sobel statistics= -3.528); work-life balance (SRW =-0.250***, Sobel statistics= -3.747) and life satisfaction (SRW =-0.205***, Sobel statistics= -3.255) between perceived HPWS and intention to leave. Thus hypothesis 3 is supported. The detailed results are given in Table 5.

Table 5: Bootstrapping results for mediation

Relationships	Main effect of independent variable(a)	Main effect of to mediation to variable (b)	Indirect effect (a*b)	LL95%-UL95%	Sobel statistics
HPWS→WB→ITL	.744***	-.607***	-.451***	.595-.322	-3.630***
HPWS→JS→ITL	.766***	-.337***	-.258***	.363-.160	-3.528***
HPWS→WLB→ITL	.727***	-.345***	-.250***	.356-.156	-3.747***
HPWS→LS→ITL	.695***	-.295***	-.205***	.295-.124	-3.255***

Note: ***p< 0.001; **p< 0.01; LL BCA and UL BCA= Lower level and Upper level of the bias corrected and accelerated confidence interval.

Key: HPWS = High Performance Work System, WB = Well-Being, JS = Job satisfaction, WLB = Work-Life Balance, LS = Life Satisfaction, ITL = Intention to Leave.

Test of Moderation

In order to check the moderation effect of mentoring between perceived HPWS and well-being, product indicator approach has been used (Little et al., 2006). Besides this, the effect size of interaction effect has been assessed with the help of formula given by chin et al. (2003):

Effect size f^2 = [R^2 (interaction model) - R^2 (main effects)] / R^2 (interaction model)

The results revealed that the interaction effect of perceived HPWS and mentoring on job satisfaction (SRW= 0.173, p<.001); work-life balance (SRW= 0.253, p<.001) and life satisfaction (SRW= 0.170, p<.001) are significant (Table 5). Therefore, hypothesis 4 is accepted. Further, the effect size of interaction has also been calculated. The value of R^2 of main effect perceived HPWS and mentoring on job satisfaction, work-life balance and life satisfaction is 0.291; 0.223; 0.217. The value of R^2 of the interaction model of perceived HPWS and mentoring on job satisfaction is 0.292; work-life balance is 0.486; life satisfaction is 0.381 (Table 6). The effect size f^2 come out to be 0.704, 0.02, 0.188 for job satisfaction, work-life balance and life satisfaction respectively. Large effect size in case of job satisfaction, medium effect size in case of work-life balance and small effect size in case of life satisfaction.

Further, conducted simple slope analyses using one standard deviation above and below the mean of the moderating variables. These slopes revealed that mentoring strengthens the positive relationship between perceived HPWS and job satisfaction; perceived HPWS and work-life balance; perceived HPWS and life satisfaction (Figure 3,4,5).

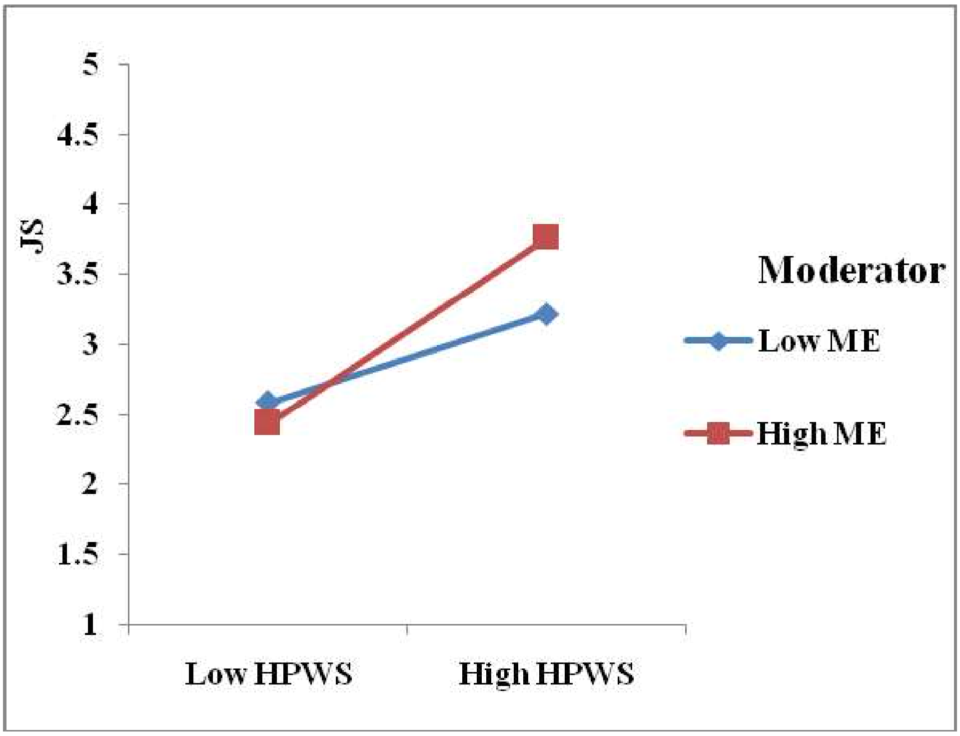

Fig. 3: Moderator

Additionally, the moderating role of mentoring between each dimensions of perceived HPWS (AMO) and well-being (job satisfaction, work-life balance and life satisfaction) has been checked. The results reveal that the interaction of ability and mentoring affects the job satisfaction most (SRW= 0.394, p<.01) followed by opportunity and mentoring (SRW=0.389, p<.001); motivation and mentoring (SRW=0.335, p<.01). Further, this study found that work-life balance is significantly affected by that interaction of opportunity and mentoring (SRW=0.475, p<.001), followed by ability and mentoring (SRW=0.395, p<.001); and motivation and mentoring (SRW=0.316, p<.001). Life satisfaction is being predicted by the interaction effect of opportunity and mentoring the most (SRW=0.381, p<.001), followed by motivation and mentoring (SRW=0.259, p<.001); and ability and mentoring (SRW=0.255, p<.001).

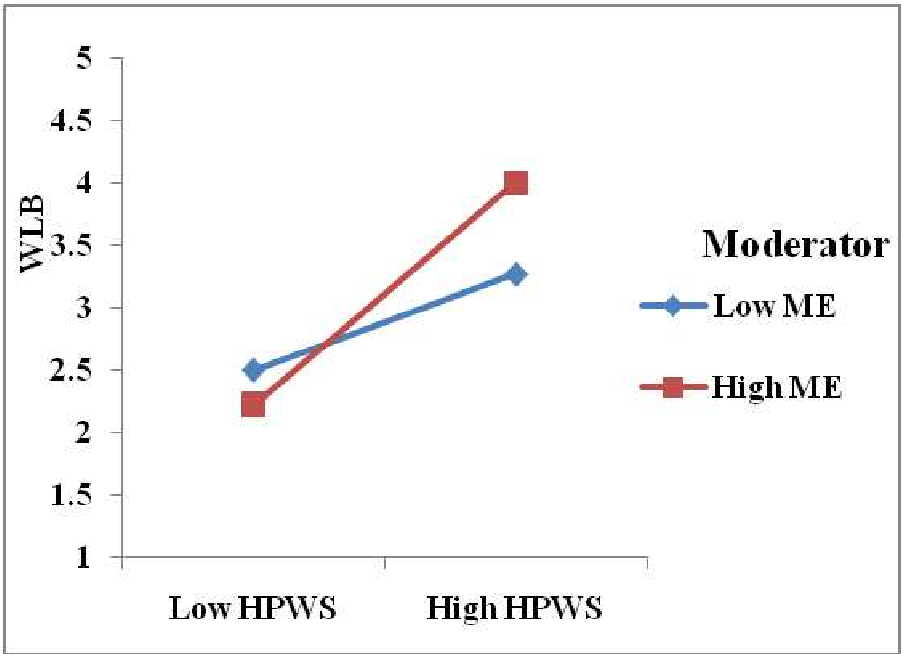

Fig. 4: Moderator

Test of Moderated Mediation

Further, checked the integrated model whereby the strength of the relationship between perceived HPWS and intention to leave through well-being is conditional on the value of a moderator i.e. mentoring. The moderated mediation is confirmed when the indirect effect of perceived HPWS on intention to leave in presence of moderating variable is significant. The interaction effect of perceived HPWS and mentoring on intention to leave through well-being for both the groups is significant as the conditional indirect effect is significant as revealed by bootstrapped results (Table 7; Figure 6).

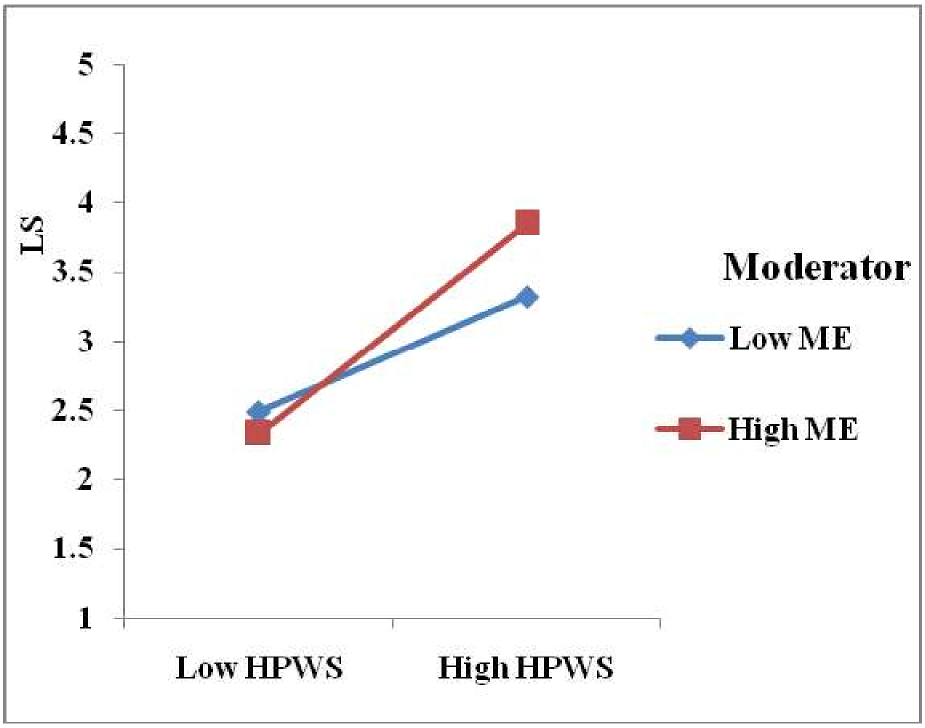

Fig. 5: Moderator

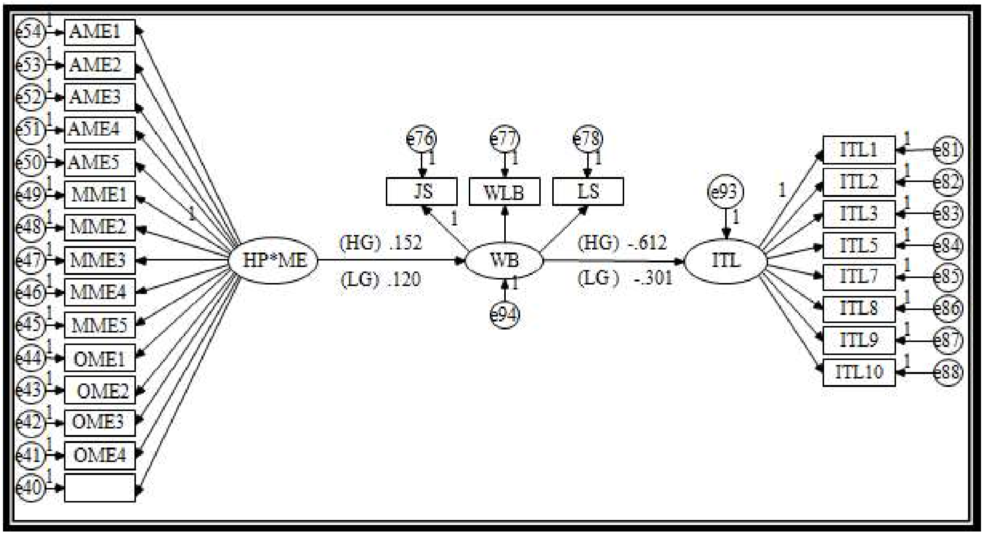

Fig.6: Structural model

Table 6: Interaction effect of mentoring between HPWS and job satisfaction, work-life balance and life satisfaction

Dependent variable-Job satisfaction			
HPWS	.534***	.535***	.492***
ME		.068 (ns)	.098**
HPWS*ME			.173***
R^2	.285	.291	.292
Dependent variable-Work-Life Balance			
HPWS	.471***	.471***	.640***
ME		.030 (ns)	.113**
HPWS*ME			.253***
R^2	.222	.223	.486
Dependent variable-Life Satisfaction			
HPWS	.466***	.466***	.586***
ME		.003 (ns)	.091**
HPWS*ME			.170***
R^2	.217	.217	.381

Note: ***p< 0.001; **p< 0.01; ns-non significant

Key: HPWS = High Performance Work System, ME-Mentoring

Table 7: Bootstrapped result of moderated mediation

Perceived HPWS*ME- WB-ITL					
Moderator (Mentoring)	Perceived HPWS*ME WB	WB ITL	Conditional Indirect effect	Boot LL 95%	Boot UL 95%
High	.152	-.612	-.093**	-.138	-.056
Low	.120	-.301	-.026**	-.073	-.026

Note: **p< 0.01; LL BCA and UL BCA= Lower level and Upper level of the bias corrected and accelerated confidence interval.

Key: HPWS = High Performance Work System, WB = Well-Being, ME-Mentoring, ITL = Intention to Leave.

Discussion

The study revealed that perceived HPWS positively affects employee well-being. The results are consistent with the earlier studies (Gonçalves & Neves, 2012; Huang et al., 2016). HPWS increases employees' satisfaction as it delivers employees with prerequisite skills and knowledge (Huang et al., 2016). It provides employees with vital abilities necessary to execute their work-related activities (Islam, Bangish, Muhammad & Jehan, 2016). Employees become loyal towards employer as well as organisation as HR practices empowers employees by involving them in decision-making, which increase their job and life satisfaction (Yazdani, Yaghoubi & Giri, 2011). HPWS make employees feel that their work is important or meaningful for the organisation and they can influence the consequences of the organisation hence, they have sense of satisfaction for their work (Liden et al., 2000). HPWS help organisation to select right person for the organisation, which enhances the job satisfaction among the employees. Further, HPWS empowers employee and involve them in decision making process of the organisation, which make them feel recognised and therefore feel satisfied.

Further, the study revealed well-being negatively affects intention to leave. The study is in line with the earlier research (Amin & Akbar, 2013; Brunetto et al., 2014; Singh et al., 2016). When an employee feels peaceful, healthy and satisfied with the life, the stay intentions of the employees increase. Well-being makes employee happy and comfortable in the organisation, which makes it difficult for the employees to leave the organisation. When employees are able to handle their work-life and personal or family life effectively then the employee never think of changing the job or quitting the organisation. Therefore, it can be concluded that well-being of the employees reduces the quitting intentions.

Further, the study revealed that well-being mediates between perceived HPWS and intention to leave. HPWS provides extensive training to employees, which enhances their well-being and thereby increasing the stay's intentions. It provides employee with necessary skill and capability to perform their task efficiently, which makes the employee satisfied and happy thereby reducing the quitting intentions. HPWS provides employee with flexi-timing facility, which makes them comfortable and health at work place thereby boosting their staying intentions. Further, HPWS practices align organisational goals with the employees' goals, which increases employees' well-being and in turn motivates them to continue with the present job. Therefore, it can be concluded that HPWS improves employees' well-being, which in turn negatively affects intention to leave.

Lastly, study revealed that mentoring moderates the relationship between perceived HPWS and well-being (job satisfaction, work-life balance and life satisfaction). Vermeeren et al. (2014) viewed that mentees' job satisfaction will be dependent upon well designed human resource practices. Mentors always try to increase the creativity and vision of the employees and also elevate the ability of them by which they are able to maintain the proper balance between work and personal life (Burns, 1978). They also motivate the mentees to do their work with interest and in a better way so that they fulfill their needs and desires. On the other hand, employees' well-being raises when firms adopt appropriate HPWS as well as provides the leader, who can guide employees in the right direction. Apart from this, mentoring improves the relationship between each dimension of perceived HPWS (AMO) and component of well-being (job satisfaction, work-life balance and life satisfaction). Mentoring programmes such as role modelling, friendliness, exposure along with ability enhancing HR practices i.e. training and job enrichment increase job satisfaction and maintain work-life balance of the employees. Further, mentors are a valuable source for motivating the mentee to accomplish their target, in this regard increase the overall well-being of the mentee. Sound communication flow removes many doubt of the employees and results in high job satisfaction, which has a spill out effect on work-life balance and job satisfaction. Further, HPWS along with mentoring encourage mentees to give best suggestion for the welfare of the organisation. So, HPWS aims at accomplish the target through amalgamation of various organisational process like leadership, mentoring, supportive climate, etc. Thus, mentoring programme in the domain of HPWS ensures increase the overall welfare of the employees.

Implications

Theoretical Implications

The study has manifold contributions. The study adds to the prior body of knowledge domain on high performance work system by evaluating the mediating and moderating variables between perceived HPWS and intention to leave relationship. Empirically proved the mediating role of well-being between perceived HPWS and intention to leave, which is unexplored in the earlier literature. Further, the relationship between each-dimensions of perceived HPWS (AMO) and intention to leave through well-being has also been explored. Besides this, the moderating role of mentoring between perceived HPWS and job satisfaction; perceived HPWS and work-life balance; perceived HPWS and life satisfaction has also been explored. Finally, this paper proved that the interaction of perceived HPWS and mentoring indirectly affects intention to leave through well-being by conducting multi-group analysis, which is the maiden contribution of this study.

Practical Implications

The present study helps to suggest various managerial implications that can help business organisation to deal with different issues arising in the organisation. HPWS should emphasise on the need based training and appropriate evaluation of training programme. The assessment of training can be done by relating pre and post training performance of the employees. Further, it is recommended that feedback related to the training programmes should be acquired from the participants in order to assess the performance of trainers as well as the whole training programme. Onboard orientation workshop should be planned to interact with the new employees about the mission and vision of the organisation. The employees should be briefed about the HPWS approach so as to match the employees' and organisational goals. Further, it is recommended that in order to properly implement the HPWS, organisations should motivate or boost employees with both extrinsic (pay related rewards) as well as intrinsic rewards (Skill variety, autonomy, feedback, recognition and task significance). Organisation should streamline the human resource workflow by using technology to improve communication and accessibility. Some specific examples include Human resource system software, internet based payroll and electronic applicant tracking. These electronic systems save time, money and reduce the errors caused by archaic paperwork.

Organisation with healthy and happy employees enjoys high level of employees' morale and productivity, which ultimately leads to reduce their intention to leave. It is recommended that organisation should develop such workspace where employees can be engaged comfortably. Workspace that looks, feels, sounds, smells great and reflects the individuality of the employees in it, while meeting the business needs more efficiently and enhances stay intention. Further, organisations should adopt flexible working hours. They should be more flexible in assigning work hours for employees as long as they do the work right. This will inculcate a natural sense of loyalty and satisfaction towards the work and reduce stress. Furthermore, wearable devices like Fitbit, Apple's Smart Watch, etc. will help employees in monitoring their personal well-being. These smart wearable track personal activities of an individual like sleep quality, calories, pulse rate, etc. This will help employees in not only staying active and healthy, but also make them proactive. In addition, organisation should introduce mindfulness training in the organisation as it is a great tool to help employees reduce stress and feel balanced. Mindfulness practices such as meditation, deep breathing and yoga help employees to be more present as well as enhance their efficiency.

Organisations should make mentorship as an important part of the organisational culture wherein mentor and mentee both can share knowledge and experience with each other. This will help to reduce job ambiguity, job stress, emotional exhaustion and enhances employee's stay intentions. Further, organisation should introduce buddy approach in the organisation. In this new employee is assign with the senior employee, who can pass pertinent information about practices and policies to new employees. The mentor/buddy helps the new employees to build confidence and loyalty thereby reducing their turnover intentions. Steady or regular coaching by mentor helps employee to reduce their stress level and arise the stay intentions.

Social Implications

The present study not only has the implications for the organisation but it also contributes towards the society as well. As we know healthy people are happy people and happy people live longer and enjoy higher quality of life. They use their strength and capabilities to contribute to their own well-being as well as that of others and society. They are compassionate and hence contribute to the moral fiber of the society in beneficial way. They are less likely to experience stress, depression and anxiety as a result they will not engage in acts of violence or antisocial behaviour. Well-being helps people to develop strong and more lasting relationship, thus facilitating society's social capital. They contribute to society in moral, social, psychological and spiritual terms. Whereas unhappy people are burden to health services and social welfare agencies or policies and justice systems and are burden to the economy. Thus, it can be concluded that happy employee or people not only benefit that particular individual but to the society as whole.

Further, mentoring helps to develop adult learning by helping them to vigorously contribute in achieving the individual's academic, personal and employment goals. Mentors by offering the assistance of their knowledge, concern, wisdom and experience deliver valuable services to the general society. Mentoring also helps to develop trust among each other, which is helpful for the society at large as it increases the unity and harmony among the people of the country. Further, mentoring help to enhance person's learning skills and build self-control. Person with mentor are less likely to engage in risky behaviour with drugs and alcohol and are more likely to develop positive relationship with peers and to grow up to become productive members of society.

Although, it is the primary responsibility of the organisations to look after the well-being of the employees, who are working in the organisation. But still family plays a very important role in enhancing the well-being of the individual. Higher level of social and family support and connections with them have positive influence on the mental and physical health of the individual. The family members or peers should act as a mentor to the individuals to build trust among each other, which helps to develop self-control and are able to share freely whatever they want to. By this they are less likely to engage in risky behaviour, which is harmful for them as well as the society.

REFERENCES

Amin, Z., & Akbar, K. P. (2013). Analysis of psychological well-being and turnover intentions of hotel employees: An empirical study. *International Journal of Innovation and Applied Studies*, *3*(3), 662-671.

Ang, S. H., Bartram, T., McNeil, N., Leggat, S. G., & Stanton, P. (2013). The effects of high-performance work systems on hospital employees' work attitudes and intention to leave: A multi-level and occupational group analysis. *The International Journal of Human Resource Management*, *24*(16), 3086-3114.

Appelbaum, E., Bailey, T., Berg, P. B., Kalleberg, A. L., & Bailey, T. A. (2000). *Manufacturing advantage: Why high-performance work systems pay off*. Cornell University Press.

Argyle, M. (1987). *The psychology of happiness*. New York: Routedge

Bahli, B., & Rivard, S. (2013). Cost escalation in information technology outsourcing: A moderated mediation study. *Decision Support Systems*, *56*, 37-47.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, *51*(6), 1173.

Bartel, A. P. (2004). Human resource management and organizational performance: Evidence from retail banking. *ILR Review*, *57*(2), 181-203.

Basak, E., Ekmekci, E., Bayram, Y., & Bas, Y. (2013). Analysis of factors that affect the intention to leave of white-collar employees in Turkey using structural equation modelling. In *Proceedings of the world congress on engineering and computer science* (Vol. 2).

Batt, R. (2002). Managing customer services: Human resource practices, quit rates, and sales growth. *Academy of management Journal*, *45*(3), 587-597.

Becker, B. E., Huselid, M. A., Pickus, P. S., & Spratt, M. F. (1997). HR as a source of shareholder value: Research and recommendations. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, *36*(1), 39-47.

Bhandarker, A., & Singh, P. (1999). Parenting transformational leaders. *Vision*, *3*(1), 1-13.

Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in HRM and performance research. *Human Resource Management Journal*, *15*(3), 67-94.

Boxall, P. (2003). HR strategy and competitive advantage in the service sector. *Human Resource Management Journal*, *13*(3), 5-20.

Boxall, P., & Macky, K. (2009). Research and theory on high performance work systems: progressing the high involvement stream. *Human Resource Management Journal*, *19*(1), 3-23.

Boxall, P., & Purcell, J. (2011). *Strategy and human resource management*. Macmillan International Higher Education.

Brunetto, Y., Shacklock, K., Teo, S., & Farr-Wharton, R. (2014). The impact of management on the engagement and well-being of high emotional labour employees. *The International Journal of Human Resource Management*, *25*(17), 2345-2363.

Burns, J.M. (1978). *Leadership*. New York: Harper and Row

Capelli, P., & Singh, H. (1992). Integrating strategic human resources and strategic management. In D. Lewin, O.S. Mitchell, & P.D. Sherer (Eds.) *Research Frontiers in Industrial Relations and Human Resources* (pp 165-192). Madison, WI: IRRA.

Chahal, H., Jyoti, J., & Rani, A. (2016). The effect of perceived high-performance human resource practices on business performance: Role of organizational learning. *Global Business Review*, *17*(3_suppl), 107S-132S.

Chang, C. P., Chiu, L. Y., & Liu, J. (2017). A study on the relationship between well-being and turnover intentions among rural school teachers: School organizational climate as a moderating variable. *Creative Education*, *8*(04), 523.

Chi, N. W., & Lin, C. Y. Y. (2011). Beyond the high performance paradigm: exploring the curvilinear relationship between high performance work systems and organizational performance in Taiwanese manufacturing firms. *British Journal of Industrial Relations*, *49*(3), 486-514.

Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research*, *14*(2), 189-217.

Choi, J. H., & Lee, K. P. (2013). Effects of employees' perceptions on the relationship between HR practices and firm performance for Korean firms. *Personnel Review*, *42*(5), 573-594.

Conway, E., & Monks, K. (2008). HR practices and commitment to change: An employee-level analysis. *Human Resource Management Journal*, *18*(1), 72–89.

Coomber, B., & Barriball, K. L. (2007). Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: a review of the research literature. *International Journal of Nursing Studies*, *44*(2), 297-314.

Croucher, R., & Rizov, M. (2015). MNEs and flexible working practices in Mauritius. *The International Journal of Human Resource Management*, *26*(21), 2701-2717.

Economic & Social Research Council (2006). *Health and well-being at work of working age people, seminar series: Mapping the public policy landscape.* Economic and Social Research Council, Swindon.

Fan, D., Cui, L., Zhang, M. M., Zhu, C. J., Härtel, C. E., & Nyland, C. (2014). Influence of high performance work systems on employee subjective well-being and job burnout: empirical evidence from the Chinese healthcare sector. *The International Journal of Human Resource Management*, *25*(7), 931-950.

Ferris, G. R., Hall, A. T., Royle, M. T., & Martocchio, J. J. (2004). Theoretical development in the field of human resources management: Issues and challenges for the future. *Organizational Analysis*, *12*(3), 231-254.

Freeman, R., & Kleiner, M. 2000. Who benefits most from employee involvement: Firms or workers. *American Economic Review, 90*(2), 219-223.

Fry, B. P., Agarwala, M., Atkinson, G., Clements, T., Homewood, K., Mourato, S., ... & Milner-Gulland, E. J. (2017). Monitoring local well-being in environmental interventions: a consideration of practical trade-offs. *Oryx*, *51*(1), 68-76.

García-Chas, R., Neira-Fontela, E., & Castro-Casal, C. (2014). High-performance work system and intention to leave: A mediation model. *The International Journal of Human Resource Management*, *25*(3), 367-389.

Gardner, T. M., Wright, P. M., & Moynihan, L. M. (2011). The impact of motivation, empowerment, and skill enhancing practices on aggregate voluntary turnover: The mediating effect of collective affective commitment. *Personnel Psychology*, *64*(2), 315-350.

Glambek, M., Matthiesen, S. B., Hetland, J., & Einarsen, S. (2014). Workplace bullying as an antecedent to job insecurity and intention to leave: a 6 month prospective study. *Human Resource Management Journal*, *24* (3), 255-268.

Godard, J. (2001). High performance and the transformation of work? The implications of alternative work practices for the experience and outcomes of work. *ILR Review*, *54*(4), 776-805.

Godard, J. (2004). A critical assessment of the high performance paradigm. *British Journal of Industrial Relations*, *42*(2), 349-378.

Gonçalves, S. P., & Neves, J. (2012). The link between perceptions of human resources management practices and employee well-being at work. *Advances in Psychology Study*, (1), 31-39.

Green, F. (2006). *Demanding work: The paradox of job quality in the affluent economy*. Princeton University Press.

Griffin, M. L., Hogan, N. L., Lambert, E. G., Tucker-Gail, K. A., & Baker, D. N. (2010). Job involvement, job stress, job satisfaction, and organizational commitment and the burnout of correctional staff. *Criminal Justice and Behavior*, *37*(2), 239-255.

Guest, D. E. (1997). Human resource management and performance: A review and research agenda. *International Journal of Human Resource Management*, *8*(3), 263-276.

Gulzar, S., Moon, M. A., Attiq, S., & Azam, R. I. (2014). The darker side of high performance work systems: examining employee psychological outcomes and counterproductive work behavior. *Pakistan Journal of Commerce and Social Sciences*, *8*(3), 715.

Guthrie, J. P. (2001). High-involvement work practices, turnover, and productivity: Evidence from New Zealand. *Academy of Management Journal*, *44*(1), 180-190.

Hailey, V. H., Farndale, E., & Truss, C. (2005). The HR department's role in organisational performance. *Human Resource Management Journal*, *15*(3), 49-66.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate data analysis* (7th ed). New Jersey: Pearson Prentice Hall, Upper Saddle River.

Harley, B. (2002). Employee responses to high performance work system practices: An analysis of the AWIRS95 data. *The Journal of Industrial Relations*, *44*(3), 418-434.

Hayes, A. F. (2013). *Introduction to mediation, moderation and conditional process analysis*. New York, New York: Guilford Press.

Huang, L. C., Ahlstrom, D., Lee, A. Y. P., Chen, S. Y., & Hsieh, M. J. (2016). High performance work systems, employee well-being, and job involvement: An empirical study. *Personnel Review*, *45*(2), 296-314.

Janssens, M., & Steyaert, C. (2009). HRM and performance: A plea for reflexivity in HRM studies. *Journal of Management Studies*, *46*(1), 143-155.

Jensen, J. M., Patel, P. C., & Messersmith, J. G. (2013). High-performance work systems and job control: Consequences for anxiety, role overload, and turnover intentions. *Journal of Management*, *39*(6), 1699-1724.

Jiang, K., Takeuchi, R., & Lepak, P. D. (2013). Where do we go from here? New perspectives on the black box in strategic human resource management research. *Journal of Management Studies, 50*(8), 1448-1480.

Jung, J. H., & Tak, J. (2008). The effects of perceived career plateau on employees' attitudes: Moderating effects of career motivation and perceived supervisor support with Korean employees. *Journal of Career Development*, *35*(2), 187-201.

Jyoti, J. (2013). Impact of organizational climate on job satisfaction, job commitment and intention to leave: An empirical model. *Journal of Business Theory and Practice*, *1* (1), 66-82

Jyoti, J., & Rani, A. (2017). High performance work system and organisational performance: Role of knowledge management. *Personnel Review*, *46*(8), 1770-1795.

Jyoti, J., & Sharma, P. (2017). Empirical investigation of a moderating and mediating variable in between mentoring and job performance: *A structural model*. *Journal of Work and Organizational Psychology, 33*, 55–67. doi.org/10.1016/j.rpto.2017.01.002.

Jyoti, J., Rani, R., & Gandotra, R. (2015). The impact of bundled high performance human resource practices on intention to leave: Mediating role of emotional exhaustion. *International Journal of Educational Management*, *29*(4), 431-460.

Karatepe, O. M., & Vatankhah, S. (2014). The effects of high-performance work practices and job embeddedness on flight attendants' performance outcomes. *Journal of Air Transport Management*, *37*, 27-35.

Keenoy, T. (1997). HRMism and the languages of re presentation. *Journal of Management Studies*, *34*(5), 825-841.

Keeton, K., Fenner, D. E., Johnson, T. R., & Hayward, R. A. (2007). Predictors of physician career satisfaction, work–life balance, and burnout. *Obstetrics and Gynecology*, *109*(4), 949-955.

Kloutsiniotis, P. V., & Mihail, D. M. (2017). Linking innovative human resource practices, employee attitudes and intention to leave in healthcare services. *Employee Relations*, *39*(1), 34-53.

Kowalski, T. H., & Loretto, W. (2017). Well-being and HRM in the changing workplace. *The International Journal of Human Resource Management, 28*(16), 2229-2255.

Kowalski, T., Loretto, W., & Redman, T. (2015). Special Issue of International Journal of Human Resource Management: Well-being and HRM in the changing workplace. *The International Journal of Human Resource Management, 26*, 123–126.

Kroon, B., Van De Voorde, K., & Timmers, J. (2013). High performance work practices in small firms: A resource-poverty and strategic decision-making perspective. *Small Business Economics*, *41*(1), 71-91.

Legge, K. (1995). *Human resource management: Rhetorics and realities.* MacMillan Business, London.

Lentz, E., & Allen, T. D. (2009). The role of mentoring others in the career plateauing phenomenon. *Group & Organization Management*, *34*(3), 358-384.

Liden, R. C., Wayne, S. J., & Sparrowe, R. T. (2000). An examination of the mediating role of psychological empowerment on the relations between the job, interpersonal relationships, and work outcomes. *Journal of Applied Psychology*, *85*(3), 407.

Little, T. D., Bovaird, J. A., & Widaman, K. F. (2006). On the merits of orthogonalizing powered and product terms: Implications for modeling interactions among latent variables. *Structural Equation Modeling*, *13*(4), 497-519.

Lu, A. C. C., & Gursoy, D. (2016). Impact of job burnout on satisfaction and turnover intention: Do generational differences matter?. *Journal of Hospitality & Tourism Research,* 40(2), 210–235.

Luthans, F., & Youssef, C. M. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organisational Dynamics, 33*, 143-160.

Macky, K., & Boxall, P. (2007). The relationship between 'high-performance work practices' and employee attitudes: an investigation of additive and interaction effects. *The International Journal of Human Resource Management*, *18*(4), 537-567.

Macky, K., & Boxall, P. (2008). High involvement work processes, work intensification and employee well being: A study of New Zealand worker experiences. *Asia Pacific Journal of Human Resources*, *46*(1), 38-55.

Marchington, M., & Grugulis, I. (2000). 'Best practice'human resource management: perfect opportunity or dangerous illusion?. *International Journal of Human Resource Management*, *11*(6), 1104-1124.

Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of vocational behavior*, *61*(1), 20-52.

Munteanu, A. (2014). What means high performance work practices for human resources in an organization. *Annals of the University of Petrosani, Economics*, *14*(1), 243-250.

Ng, T. W., & Sorensen, K. L. (2008). Toward a further understanding of the relationships between perceptions of support and work attitudes: A meta-analysis. *Group & Organization Management*, *33*(3), 243-268.

Osterman, P. (2000). Work reorganization in an era of restructuring: Trends in diffusion and effects on employee welfare. *ILR Review*, *53*(2), 179-196.

Özçelik, G., Aybas, M., & Uyargil, C. (2016). High performance work systems and organizational values: Resource-based view considerations. *Procedia-Social and Behavioral Sciences*, *235*, 332-341.

Paauwe, J. (2009). HRM and performance: Achievements, methodological issues and prospects. *Journal of Management studies*, *46*(1), 129-142.

Paauwe, J., & Boselie, P. (2005). HRM and performance: what next?. *Human resource management journal*, *15*(4), 68-83.

Pare, G., & Tremblay, M. (2007). The influence of high-involvement human resources practices, procedural justice, organizational commitment, and citizenship behaviors on information technology professionals' turnover intentions. *Group Organization Management, 32*(3), 326-357.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of applied psychology*, *88*(5), 879-903.

Purcell, J., Kinnie, N., Hutchinson S., Rayton B., & Swart, J. (2003). *Understanding the people and performance link: unlocking the black box*. London.

Ramsay, H., Scholarios, D., & Harley, B. (2000). Employees and high performance work systems: testing inside the black box. *British Journal of industrial relations*, *38*(4), 501-531.

Renee Baptiste, N. (2008). Tightening the link between employee well-being at work and performance: A new dimension for HRM. *Management decision*, *46*(2), 284-309.

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: a review of the literature. *Journal of applied psychology*, *87*(4), 698.

Riggle, R. J., Edmondson, D. R., & Hansen, J. D. (2009). A meta-analysis of the relationship between perceived organizational support and job outcomes: 20 years of research. *Journal of Business Research*, *62*(10), 1027-1030.

Riketta, M. (2005). Organizational identification: A meta-analysis. *Journal of vocational behavior*, *66*(2), 358-384.

Robertson, I., & Cooper, C. (2011). *Well-being: Productivity and happiness at work*. Palgrave Macmillan.

Russell, H., O'Connell, P. J., & McGinnity, F. (2009). The impact of flexible working arrangements on work–life conflict and work pressure in Ireland. *Gender, Work & Organization*, *16*(1), 73-97.

Savaneviciene, A., & Stankeviciute, Z. (2010). The models exploring the "black box" between HRM and organizational performance. *Engineering Economics*, *21*(4), 426-434.

Scandura, T.A., & Ragins, B.R. (1993). The effects of sex and gender role orientation on mentorship in male-dominated occupations. *Journal of Vocational Behavior*, *43*(3), 251-265.

Sears, L. E., Shi, Y., Coberley, C. R., & Pope, J. E. (2013). Overall well-being as a predictor of health care, productivity, and retention outcomes in a large employer. *Population health management*, *16*(6), 397-405.

Sharma, R.D., & Jyoti, J. (2006). Job satisfaction among school teachers. *IIMB Management Review*, 18(4), 349–363.

Singh, A. K., Choubey, A. K., & Singh, S. (2016). Does mindfulness enhance psychological well-being of the students. *Journal of Psychosocial Research*, *11*(2).

Singh, P., Burke, R. J., & Boekhorst, J. (2016). Recovery after work experiences, employee well-being and intent to quit. *Personnel Review*, *45*(2), 232-254.

Sung, J., & Ashton, D. N. (2005). *High performance work practices: Linking strategy and skills to performance outcomes*. London: Department of Trade and Industry.

Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analyses based on meta analytic findings. *Personnel Psychology*, *46*(2), 259-293.

Thompson, C. A., & Prottas, D. J. (2006). Relationships among organizational family support, job autonomy, perceived control, and employee well-being. *Journal of Occupational Health Psychology*, *11*(1), 100-118.

Timiyo, A. J. (2014). High performance work practices: One best-way or no best-way. *IOSR Journal of Business and Management (IOSR-JBM) e-ISSN*, 08-14.

Torre, E. D. (2012). High performance work systems and workers' well–being: A sceptical view. *International Journal of Work Innovation*, *1*(1), 7-23.

Tov, W., & CHAN, D. (2012). *The importance of employee well-being*. Business Times, September 25, 1-14

Ul Islam, Z., Bangish, S. B., Muhammad, H., & Jehan, A. S. (2016). The Impact of HR practices on job satisfaction: A case study of hotel industry in Pakistan. *The Journal of Asian Finance, Economics and Business*, *3*(1), 43-48.

Valcour, M. (2007). Work-based resources as moderators of the relationship between work hours and satisfaction with work-family balance. *Journal of Applied Psychology*, *92*(6), 1-12.

Vanderpool, C., & Way, S. A. (2013). Investigating work-family balance, job anxiety, and turnover intentions as predictors of health care and senior services customer-contact employee voluntary turnover. *Journal of Cornell Hospitality Quarterly, 54*(2), 149-160.

Vermeeren, B., Steijn, B., Tummers, L., Lankhaar, M., Poerstamper, R. J., & Beek, S.V. (2014). HRM and its effect on employee, organizational and financial outcomes in health care organizations. *Human Resources for Health, 12*(1), 35.

Watty-Benjamin, W., & Udechukwu, I. (2014). The relationship between HRM practices and turnover intentions: A study of government and employee organizational citizenship behavior in the Virgin islands. *Public Personnel Management, 43*(1), 58-82.

Wei, Y. C., Han, T. S., & Hsu, I. C. (2010). High-performance HR practices and OCB: A cross-level investigation of a causal path. *The International Journal of Human Resource Management*, *21*(10), 1631-1648.

Wright, P. M., & Gardner, T. M. (2003). The human resource-firm performance relationship: methodological and theoretical challenges. *The New Workplace: A Guide To The Human Impact Of Modern Working Practices*, 311-328.

Wright, P. M., & Haggerty, J. J. (2005). Missing variables in theories of strategic human resource management: Time, cause, and individuals. *Management Revue*, *16*(2), 164-173.

Wright, P. M., & Nishii, L. H. (2007). Strategic HRM and organizational behavior: Integrating multiple levels of analysis. *CAHRS working paper series*, 468.

Yazdani, B. O., Yaghoubi, N. M., & Giri, E. S., (2011). Factors affecting the empowerment of employees. *European Journal of Social Sciences, 20*(2), 267-274.

Yazid, Z. N. A., Yahya, W. K., Ishak, M., & Achim, N. A. (2017). High performance work system (hpws) and organizational performance: The mediating role of employee attitude. *Intervarsities Multidisciplinary International Conference*.

Young, S., Bartram, T., Stanton, P., & Leggat, S. G. (2010). High performance work systems and employee well-being: A two stage study of a rural Australian hospital. *Journal of Health Organization and Management*, *24*(2), 182-199.

Zhang, B., & Morris, J. L. (2014). High-performance work systems and organizational performance: Testing the mediation role of employee outcomes using evidence from PR China. *The International Journal of Human Resource Management*, *25*(1), 68-90.

Zhang, M., Zhu, C. J., Dowling, P. J., & Bartram, T. (2013). Exploring the effects of high-performance work systems (HPWS) on the work-related well-being of Chinese hospital employees. *The International Journal of Human Resource Management*, *24*(16), 3196-3212.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Mediating Role of Interpersonal Trust in Devolution of HR Functions and Organizational Commitment in Indian Banking Sector

JAYA BHASIN, SHAHID MUSHTAQ AND BHARTI SUJAN

Abstract: The worth of Human Resource (HR) has been realized as an inimitable strength for attaining long-lasting competitive advantage. In this scenario an individual has to be multitasking in order to reduce costs. Devolution of HR functions may serve as one of the key factors for any organization to meet its reduced cost targets. As the organizations have increased devolution of many HRM functions, line managers' contribution in implementing those activities has also increased and is often considered as critical HR implementation. The level of trust between employees and their line managers who are performing the core HR functions plays a very crucial role. The current research focuses on the mediating role of interpersonal trust on devolution of HR function and organizational commitment. In this phase of the study a model was developed to understand the impact of mediating variable interpersonal trust on devolution of HR functions and organizational commitment.

Introduction

Human resources in the corporate world constitute an important source for attaining competitive advantage for the organization, in this emerging business environment (Wright and McMahan, 1992). Today, HR is seen as substantial provider to the commencement and achievement of the organization's goals (Jackson & Schuler, 2000). Thus, HR practices have the potential to be key components of overall firm strategy.

With the mounting significance of Human Resource Management (HRM), business organizations comprehend the contribution of various other entities in HR related issues. Valverde *et al.* (2006) opined that HRM is not the only responsibility of HR departments but is carried out by many other agents. Thus for any organization all managers contribute in people management activities

Prof. Jaya Bhasin (Supervisor) is Dean of School of Business Studies, Central University of Jammu; Dr. Shahid Mushtaq (Corresponding Author) is Assistant Professor, Central University of Jammu and Bharti Sujan (Principal Author) is Research Scholar, Central University of Jammu.

with specific reference to HR function (Khatri & Budhwar, 2002). In this context, researchers have defined the term devolution as the reallocation of personnel tasks to line managers (Casco´n-Pereira *et al*., 2006).

There has been a lot of debate on the issue of involvement of line managers in decision making. In fact, in the late 1990s, some authors referred line managers as the "lost manager" (Child & Partridge, 1982) or the "forgotten supervisor" (Thurley & Wirdenius, 1973). In the initial years authors presented the first theory that the responsibility of the HR should be given to the line manager (Cunningham and Hyman, 1995; Hutchinson and Wood, 1995; McGovern *et al.*, 1997; Harris, 2001) but in the recent years authors have clearly stated that the role of line managers has broadened its horizon, they are managing their new role of managing people while performing their traditional supervisory role (McConville and Holden, 1999; Hales, 2005). It has been well researched that providing training to the line managers along with creating a support system which means creating trust among the employees will help the organisations achieve effectiveness in longer run (Perry and Kulik, 2008). According to Brewster and Larsen (2000), line involvement in HRM is based on five rationales: to reduce costs; to provide a more comprehensive approach to HRM; to place responsibility for HRM with the managers most concerned; to speed up decision making; and as an alternative to outsourcing HRM functions. Some authors have presented a view that there exists a gap between the espoused and enacted responsibility. Ghejan and Gal (2017) mention in their work that in low trust countries the financial decision making is not at all delegated. The study also discusses the cultural differences across the globe for delegation of decision making with regard to HR functions. This gap existed due to lack of skills and training, work overload, clash among the priorities, lack of interest but mostly is affected by their self serving behavior (Grint, 1993; McGovern *et al.*, 1997; Fenton O'Creevy, 2001; Harris, 2001; Whittaker and Marchington, 2003). The self serving behavior and the skills of line manager often define the capacity to make choices that levy impact on the subordinates' performance. Today, the line managers' are carrying HR activities not merely as agents but perform HR activities as a combination of his individual than departmental and organizational goals and objectives. The aforesaid highlighted combination of individual, departmental and organizational goals can be best explained by management discretion theory (Hambrick & Finkelstein, 1987). Management discretion theory explains the efforts put in by line manager to fulfill personal and organizational objectives (Jensen & Meckling, 1976; Williamson, 1963). In organizations where high management discretion is perused, the line managers tend to levy higher focus on individual performance than organizational performance but on the other hand line managers in organizations with lower discretion focus more on organizational performance than on their individual performance. This theory of management discretion helps in understanding the self serving behavior of the line manager. Thus line managers need to strike a balance in their self serving behavior. If the line manager fails to focus on organizational performance it may even cost him his job but on the other hand if he focuses too much on the organizational performance he may not be able to serve the department and personal goals (Finkelstein & Boyd, 1998; Hambrick & Finkel Stein, 1987). Therefore, it becomes important to understand the essential outcomes of their self serving behavior.

Another biggest challenge for the line managers and the HR managers is to understand each others' priorities, expectations from each other and in this complete scenario the biggest challenge for the line managers' is to retain the employees (Legge 2005; Kamoche 2001; Op de Beeck *et.al.,*2015; Meijerink *et.al.,*2015). As cost cutting has been mentioned as one of the important rationale for devolution, the study on perception of line managers indicates that transferring the activities strengthen the work culture of the organization since this increases the involvement of the line managers. There are a few studies which mention that the line managers may perceive this transfer of responsibility not as a cost cutting activity but take it as an additional activity their working regime (Brandes *et.al.,*2000; Op de Beeck *et.al.,* 2016) and due to this the quality of work by the line managers may suffer. Devolution of HR functions to the line implies that line managers should become more involved in HR Functions so that the HR staff can take on a greater strategic role (Finegold & Frenkel, 2006). The decentralization of responsibilities to the line has been viewed as a key characteristic of modern-day HRM philosophy (Hope-Hailey *et al.*, 1997). Line management has been viewed as increasingly taking HR responsibility (Navío-Marco *et.al.,* 2019 Covin & Wales, 2019; Wales *et.al.,* 2019; Balyney *et.al.*, 2019; Aviso *et.al.*, 2018; Francis & Baum, 2018; Keegan *et.al.*, 2018 ; Ruel & Gbur, 2017).

This reallocation of HR responsibilities has increased the challenges of managers at all levels, regardless of position or functional area (Kulik, 2004). Line managers perform HRM functions like team handling, performance appraisal and even communicate difficult decisions like termination (McGovern *et al.* 1997, Perry & Kulik, 2008). Most of the organizations have witnessed the devolvement of recruitment to selection, career planning to training, performance measurement to rewards, organizational culture and organizational development (Navío-Marco *et.al.,* 2019 Covin & Wales, 2019; Wales *et.al.,* 2019; Balyney *et.al.*, 2019; Aviso *et.al.*, 2018; Francis & Baum, 2018; Keegan *et.al.*, 2018 ; Ruel & Gbur, 2017). This devolvement varies from recruitment to selection to training to induction to performance appraisal to grievance handling and the list goes on. In-fact it has become a global norm to devolve HR responsibilities from HR managers to line managers (Larsen & Brewster 2003, Perry & Kulik, 2008). This transfer is only possible if there is trust, coordination and commitment among the employees, line managers and the HR managers.

In relationship-oriented organizations like banks, the most important function of these organizations is good and efficient service and this efficient service delivery process helps in creating value to the organization (Rimi *et al.*,2017; Meijerink *et al.*,2015). In the last few years the Indian Banking sector has faced huge structural changes. These structural changes were due to demonetization, GST and introduction of new structural changes in loan policy by RBI. On one hand the banks needed to form strategies to cope and implement these changes and on the other they needed to emerge as effective organizations. For any organization to be effective the most important source is the employees. The role of line manager in implementing these changes has been quite evident but the impact of this structural change on trust and commitment of bank employees in India is not evident in literature.

Literature Review

Involvement of line manager as leaders in HR activities: Line managers are given the task of executing HR tasks by influencing the attitude of the employees and motivating them to achieve the desired goals (Gilbert *et al.,* 2011; Pereira and Gomes 2012). But many authors suggest that there is a difference in the implementation levels of HR functions in various departments because the attitude, leadership style of line managers highly influence the HR tasks they are asked to implement. The behaviour of the leaders is highly influenced by their leadership style for e.g. line managers whose major focus is on quantity tends to ignore the performance appraisal and career development of the employees (Bass 1990; Podsakoff, *et al.*,1990). Line managers are not robots who just implement as and what they are asked to implement (Marchington and Grugulis 2000). The major focus of line managers is to motivate the employees so that they can coordinate their individual efforts with that of the organizational goals. This type of behaviour further motivates employees to plan their future and improve their quality of life (Tucker and Russell, 2004). The attitude of the line manager where they act as a leader, helps in enhancing commitment oriented HR activities and motivates the employees to improve their performance (Vermeeren, 2014). One of the most important characteristic of a line manager is his leadership behaviour. The extent to which a line manager values the contribution made by the subordinates and takes care of their career growth and well being also contributes towards organizational commitment (Gilbert et. al., 2011).

Involvement of HR managers as leaders in HR activities: The line manager often plays the role of a leader but in doing so it is very important to analyze the fact that if the concerned line manager has the specific skills required being a leader. It is also important that the line manager has to be imparted professional training to perform the role of a leader (Hales, 2005; Renwick, 2000). It is the duty of a leader to train and motivate its employees to perform well (Hutchinson & Prucell,

2007) but line managers hardly do that because line managers are themselves not trained to impart any such training to their subordinates (Bond & McCracken, 2004). Line managers often feel stressed and due to devolution of HR functions it is much possible that they are forced to do excess work since they are overloaded and this may result in serious loss of quality of performance. The HR specialists are experts in managing talent, identifying high potential employees and referring the best employees for succession planning. This type of skill might be lacking in line managers. Line managers have a tendency to quickly resolve the issues but many a times this silver bullet approach may not address the core issue. This types of decisions taken in haste may result in dissatisfaction among employees (Ready & Conger, 2003).

Involvement of line and HR managers as leaders in HR activities: Line managers have a huge impact on the employees as supervisors because of their proximity with the employees (Becker *et al.,* 1997; Chen et.al, 2018; Gilbert et.al, 2011) but the service quality of HR department and their skills as leaders has a positive impact on the commitment of the employees. The HR managers are said to exercise a greater influence on their role of managing people. It is also said that where there is good interaction, coordination and collaboration between line and HR managers tends to exercise higher influence on the commitment of employees as the HR managers can tackle the issues which line managers find difficult to address (Gilbert *et al.,*2011). Although line managers are considered to be the best choice to perform HR functions but close contact between HR personnel and employees will always create a better work environment (Gilbert et. al., 2011).

Organizational Commitment

Organizational commitment refers to the attitude of an individual to willfully put in efforts to achieve the required goal and their strong desire to flourish and maintain their relation with the organization (Magotra 2016). Commitment is the key to retain the employees in the organization, where there is high commitment absenteeism and attrition rate is low (Vangel, 2011), employees give in their hundred percent efforts to be a part of the organization as it gives them a sense of security (Daarwish & Singh,2013). In today's time where the organizations are facing competition from every end, it becomes important for organizations to retain their employees prepare them for change, impart them key skills to face the constant pressure from national as well as international competitors. In order to gain an upper edge over the competitors and manage the change, the HR managers are in dire need to deploy the HR operational activities to the line managers. The strategies of the HR managers are designed in such a way that they represent the goals and future of the organization. Employees are considered to be the most important resource of the organization and they form the basis of quality, structure, culture and values of any organization and commitment among them is considered to be essential (Choong 2017). It is also said that if the employees feel that he is supported by the members of the organization than he tends to have greater commitment towards the organization (Balyney *et al.*, 2019; Aviso *et al.*, 2018; Francis & Baum, 2018; Keegan *et al.*, 2018; Op de beeck *et al.*, 2016; Eisenberger *et al.*, 1986; Eisenberger *et al.*, 1990) It is the utmost priority of line managers to support and motivate their employees to work with great efficiency which leads to higher commitment and effectiveness of the employees. Therefore this study is an attempt to understand the role of line and HR managers as leaders in HR activity and its relation with organizational commitment in Indian banking sector. The study is based on the following hypotheses:

H_1: *Involvement of line managers as leaders in HR activity has positive impact on organizational commitment*

H_2: *Involvement of HR managers as leaders in HR activity has positive impact on organizational commitment*

H_3: *Involvement of line and HR managers as leaders in HR activity has positive impact on organizational commitment*

DOL: *Involvement of Line managers as leaders in HR activity*

DOH: *Involvement of HR managers as leaders in HR activity*

DOLH: *Involvement of line and HR managers as leaders in HR activity*

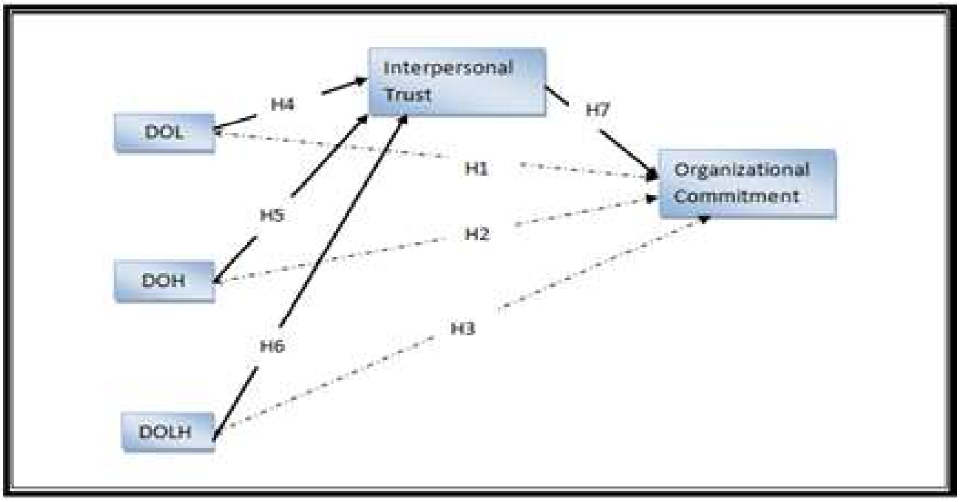

Fig.1: Conceptual model used in this study

Source: *Proposed by the Researcher*

Mediating Role of Interpersonal Trust in Devolution of HR Functions and Organizational Commitment

The way the line managers implement the HR functions makes an impact on the trust of the interpersonal and on their organizational commitment. Lewicki et al.,1998 and Hardy 1998 defined "Trust refers to the confident positive expectations regarding another's conduct and commitment to a goal." A model of "vicious circle around line managers" by Brown & Prucell (2007) highlighted that the line managers often face such issues as lack of commitment, lack of training, lack of requisite skills and the requisite level of competencies in order to implement HR functions effectively. The situation becomes worse when the HR manager and the employees do not trust their line managers, the decision making power is in the hands of the HR managers and line managers are just performing the tasks, the HR managers' major focus is on the administration of HR functions and is not able to focus on the strategy/ policy formulation (Perry & Kulik, 2008; Andrei & Johanna, 2017). These issues have been addressed by various other authors (Solnet *et al.*,2015; Op de Beeck *et al.*, 2015; MacGovern *et al.*,1997; Maxwell and Watson 2006; Rousseau 2006; Kirkpatrick *et al.*,1992). Whenever the organization makes big organizational changes like the changing role of HR managers to strategic policy makers or HR functions being performed by line managers such issues are more prefaced (European Commission, 2002; Peters et. al., 2010; Depickere, 1999). Guest (1987) highlighted that as the role of line managers and HR managers is changing, the key factor that plays an eminent role is 'employee flexibility' and this transition will be a smooth transition if all the employees at all levels display "high organizational commitment, high trust and high level of intrinsic motivation". The hypotheses thus are proposed as follows:

H_4: *Involvement of line managers as leaders in HR activity has positive impact on interpersonal trust*

H_5: *Involvement of HR managers as leaders in HR activity has positive impact on interpersonal trust*

H_6: *Involvement of line and HR managers as leaders in HR activity has positive impact on interpersonal trust*

H_7: *Interpersonal trust has positive impact on organizational commitment.*

Methodology and Measurement

In this phase of the study a model was developed to understand the impact of mediating role of interpersonal trust on involvement of line and HR managers and organizational commitment. It primarily covered the involvement of line and HR managers as leaders in HR activities as independent variable and was measured using a scale by Sujan *et.al.,* (2017). Interpersonal trust the mediating variable was measured using the measurement scale developed by Cook and Wall (1980) and organizational commitment the dependent variable was measured using scale of Mowday *et al.,* (1979).

Before data collection, the questionnaire was discussed with banking and subject experts to ensure the face and content validity. After this a pilot study was conducted on a sample of 25 respondents to identify any unclear items of the scale. Accordingly the modifications were made and the final questionnaire was used for data collection. A total of 300 employees from ICICI bank in Haryana and Punjab were approached who had work experience of more than one year for assessing the involvement of line and HR managers. Out of 300 respondents, 225 responses were considered appropriate, while some of the remaining questionnaires had no or inadequate information. In order to accomplish the objectives of the study the data were assessed using both primary and secondary sources.

In a total of 225 respondents 62.7% male respondents were there where as 37.3% were females. It was reported that 36% individuals working with ICICI bank had an experience of less than 5 years where as 40.4 % individuals had an experience of 5-10 years and only 23.1 % employees had an experience of more than 10 years. In this study it was reported that 53.8% of employees were executives whereas 19.1% were assistant managers, 13.3% were senior managers and 4.9% reported to be regional heads.

The questionnaire was divided into 4 different sections to assess all the variables used in the current study. Section A comprised of independent variable that is devolution of HR functions where as section B comprised of mediating variable interpersonal trust and Section C consisted of dependent variable organizational commitment. In order to control any common method bias the bank employees were assured that there is no right or wrong answers and they just need to address the level of involvement of line and HR managers.

Instrument Development

Reliable and valid instruments assessed in literature were used to measure the variables of the current study. The three variables analyzed in the current study are:

Independent Variable: Devolution of HR Functions

Devolution of HR functions was assessed by understanding the level of involvement of line and HR managers as leaders in HR activity. It was measured by a scale (Sujan *et.al.,* 2017) which consisted of 27 items with anchors 5=High

Involvement and 1= No Involvement. Examples of the statements included "Briefing of work targets" and "Building a healthy superior-subordinate relation". The scale was assessed for reliability which ranged between 0.864 and 0.932.

Mediating Variable: Interpersonal Trust

This study is an attempt to understand the impact mediating role of interpersonal trust on devolution of HR functions and organizational commitment. The mediating variable i.e. interpersonal trust was measured (Cook and Wall, 1980) using items like "Me and my subordinates participate in work decisions" and "The Supervisors support their subordinates". The reliability of the scale was measured to be Cronbach's á =0.888

Control Variables: Organizational Commitment

The current study helps in understanding the impact of devolution of HR functions on organizational commitment. The controlled variable for this study is organizational commitment. It was measured using a scale (Mowday *et al.*, 1979) which consisted of 9 items which anchored on a 5 point Likert's scale where 5 =strongly agree and 1=strongly disagree. This scale measured organizational commitment using statements like "I feel proud to tell others that I am part of this organization" and "I am concerned about the future growth of this organization". The reliability of the scale was measured to be Cronbach's á =0.922 which is well above the standardized value of 0.7.

Results

The proposed model was tested using SEM (AMOS 18) as the study constituted of an independent, mediating and a dependent variable. Structural Equation Modeling (SEM) is considered to be an ideal method to analyze and understand conceptual models (Garver and Mentzer, 1999; Medsker *et al*., 1994). The two stage model for using SEM was followed (Hair et al., 1998; Joreskog and Sorbom, 1996). The two stages comprised of CFA (confirmatory factor analysis) to assess the scale and SEM (structural equation modeling) to test the model indicating the mediating role of interpersonal trust on involvement of line and HR managers and organizational commitment.

Measurement Model

The current study revolved around three variables devolution of HR functions, organizational commitment and interpersonal trust. Devolution of HR functions consisted of 3 sub factors that is involvement of only line managers as leaders in HR activity, involvement of only HR managers in HR activity and involvement of both line and HR managers as leaders in HR activity. After CFA the resulting model showed a good model fit wherein CFI (comparative fit index) =0.926, GFI (goodness of fit indices) = 0.866, TLI (Tucker Lewis Index)= 0.907, CMIN/Df (Ratio of Chi-square to Degree of Freedom) = 2.16 RMSEA (Root Mean Square Error of Approximation) =0.073. It further indicated that value of TLI is lower that value of CFI. All the values of fit indices were within acceptable range as suggested in the literature (Hair et al., 2010 and Forneil and Larcker, 1981). CFA further provided base for convergent and discriminant validity. For convergent validity, the values of AVE should be greater than 0.4 and construct reliability should be more than 0.7 and the factor loadings after rotated component matrix should be more than 0.5. As shown in the Table 1 the values of the latent variables are in accordance with the values suggested in the literature (Hair et al 2010, Forneil and Larcker, 1981).

Table 1: Convergent and discriminant validity of the scale

	CR	AVE	MSV	MaxR(H)	DLH	DLL	DLLH
DLH	0.849	0.423	0.080	0.877	0.650		
DLL	0.857	0.504	0.080	0.875	-0.283	0.710	
DLLH	0.937	0.624	0.026	0.947	-0.128	0.161	0.790

Source*: Prepared by Researcher*

Discriminant validity is the degree to which the constructs defer from each other. For discriminant validity the correlation between any two constructs is less than the square root of the AVE extracted by the measures of the construct. The above Table 1 clearly shows that the value of correlation between any two constructs does not exceed the square root of AVE. Thus, all the constructs of the demonstrated reliability and validity as they met the threshold criteria's mentioned in extensive literature (Hair *et al.,* 2010; Hu and Bentler, 2009).

The Structural Model

The model used for this study included three constructs involvement of line and HR managers (independent variable) interpersonal trust (mediating variable) and organizational commitment (dependent variable). The resulting model produced good-fit indices: CFI= 0.871; GFI= 0.780; TLI= .847 CMIN/DF= 2.125; RMSEA= 0.07. The literature suggests that all the aforesaid values were within acceptable ranges (Gerbing, & Anderson, 1992; Hu and Bentler, 2009; Hooper *et al.,*2008). The aforesaid values are indicated in the Figure 2.

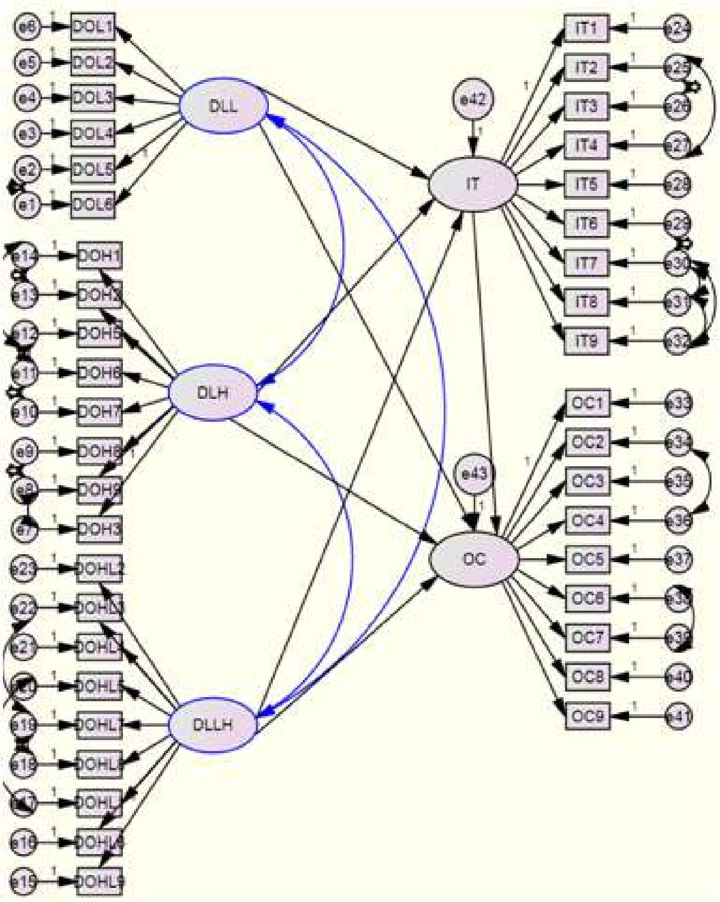

Fig.2: Structural equation model

CFI= 0.871; GFI= 0.780; TLI= .847 CMIN/DF 2.2; RMSEA= 0.07; DLLàOC= -0.02; DLHàOC= -0.07; DOLHàOC= 0.131; DOLàIT =0.134; DOHàIT -0.07; DOLHàIT = 0.41; ITàOCà 0.264

As shown in the Figure 2 involvement of only line manager had a negative impact on organizational commitment (path coefficient= -0.02 $p<0.05$). Involvement of only HR manager had a negative impact on organizational commitment (path coefficient= -0.070; $p<0.05$). Involvement of line and HR manager had a significant and a positive impact on organizational commitment (path coefficient= 0.131 $p<0.05$). Involvement of only line manager had a significant and a positive impact on interpersonal trust (path coefficient= 0.133 $p<0.05$). involvement of only HR manager had a positive impact on interpersonal trust (path coefficient= -0.07 $p<0.05$). Involvement of line and HR manager had a significant and a positive impact on interpersonal trust (path coefficient= 0.41 $p<0.05$). Interpersonal trust had a significant impact on interpersonal trust (path coefficient= 0.264 $p<0.05$).

Therefore, H_3, H_4, H_6, H_6 and H_7 were supported. But H_1 and H_2 negates that the involvement of only line managers or only HR managers has a significant and a positive impact on organizational commitment. The results therefore, confirmed that interpersonal trust is the key for coordination between the line and HR managers and leads to better organizational commitment. The results are shown in Table 2.

Table 2 Summary of the Structural Model

Hypotheses		Values	Results
H_1	Only line managers→Organizational commitment	-0.02	Not Supported
H_2	Only HR managers→Organizational commitment	-0.07	Not supported
H_3	Both line and HR managers→Organizational commitment	0.131	Supported
H_4	Only line managers→ Interpersonal trust	0.134	Supported
H_5	Only HR managers→Interpersonal trust	-0.07	Supported
H_6	Both line and HR managers→Interpersonal trust	0.41	Supported
H_7	Organizational Commitment→Interpersonal trust	0.264	Supported

Key Notes: CFI= 0.871; GFI= 0.780; TLI= .847 CMIN/DF 2.2; RMSEA= 0.07

Discussion

Because of the rapid changes in the Indian banking industry, it becomes essential to understand the involvement of line and HR managers in executing the HR functions. The current study focussed on the mediating role of interpersonal trust on devolution of HR functions and organizational commitment. The findings of the study indicated that cordinated effort between the line and HR managers have a higher impact on interpersonal trust and organizational commitment. The results also indicated that involvement of only line managers has a low impact on interpersonal trust and commitmnet (Brewster & Soderstorm, 1994; Schuler, 1992; Storey & Sisson, 1994; Budhwar & Sparrow, 1997). The HR responsibilities are being devolved to line managers but there is no clear line as to which part of the activity can be effectively carried on by line managers and which part need the expertise of trained HR personals. This division will vary from organization to organization and cannot be forced on but a clear job specification could help the line managers as well as HR managers to understand their duties well (Solnet *et al.*,2015; Op de Beeck *et al.*, 2015; MacGovern *et al.*,1997; Maxwell and Watson 2006; Rousseau 2006; Kirkpatrick *et al.*,1992). In India the branches of private banks are geographically dispersed and line managers have significant responsibilities. The HR managers in private banks of India are working in the head offices. There is geographical distance between the branches and the centre/ head offices. Therefore line managers as leaders have a stronger influence on HRM functions at the local level in comparison to the HR managers do. The purpose of this study was to understand the transitions in the role of line and HR bank managers in performing HR functions and how they impact interpersonal trust and organizational commitment. The line managers as leaders are not only performing HR functions but also taking decisions to implement the HR functions effectively.

Even the HR discretion theory well explains that the contribution made by the line managers should be a balanced one. A line manager practicing high degree of HR discretion focuses on individual goals and ignores organizational goals on the other hand line manager with low discretion may feel stressed over burdened to focus only on organizational goals. Devolution of HR functions to line managers requires a balanced managerial discretion by the line managers where they can focus on personal departmental and organizational goals and performance. Devolution of HR functions has bought a huge transition in the workings of line managers. It further supports that employees trust their line managers who are performing functions like recruitment, selection, training performance appraisal etc. Line managers acting as leaders also called the local managers and can make quick decisions about the situation as they are closest to the team and can generate better response from their team members. Further, it reduces cost of the organization; they can exercise control over the employees as they are in constant touch with each other; this also enables line managers to enhance their skills competencies and helps them become better managers (Brewster & Soderstorm, 1994; Schuler, 1992; Storey & Sisson, 1994; Budhwar & Sparrow, 1997).

The HR managers in Indian private banks are working in the head offices and are geographically distanced. The involvement of HR managers as a strategic partner has resulted in adding economic value to the ultimate customers and investors of the ICICI Bank. Another study concluded that vesting the HR functions to only HR managers may result in solutions that are from the perspective of the HR specialists ignoring the employees and line managers point of view or in other words a "bureaucratic bastion"(Da*ny et.al.,* 1998) but the involvement of only line managers in performing HR functions face huge problems like labour turnover, negative returns on investment, instability in organizational culture, lack of commitment, loss of intellectual property, continuity problems (Kulik, 2004; Parker, & Inkson, 1999). Further authors have supported that HR mangers have now become strategic partners (Yusliza *et.al.,*2019; Gottardello & Valverde, 2018; McCracken, 2017) and are more focused in formulating strategies and is often quoted as "HR Proposes but the line disposes" (Brucell & Prucell, 2007).

Many authors have further supported the above findings that it is difficult to draw a line or divide the activities among the line and HR managers. A shared effort will always encourage the HR and line managers to cooperate and solve the issues collectively rather than just concentrating on their individual work priorities (Forbringer and Oeth 1998). This cooperation enables the line managers to overcome many hurdles like lack of competencies in handling HR responsibilities to the best of their capabilities; it further enhances the level of consistency and quality of policies formed (Purcell and Hutchinson, 2007; Dany *et.al.,* 1998). The results also reveal that a coordinated effort between line and HR managers is the key. A cordial relation which is a blend of the expertise of HR managers and the execution of line mangers is the key to attain trust commitment and effectiveness of the organizations (McCracken *et.al.,* 2017; Nehles & Bondarouk, 2017; Mcdermott *et.al.*, 2015; Op de Beeck et.al., 2016; Gooderham *et.al.,* 2015; Solnet *et.al.,* 2015; Renwick, 2002; Watson *et.al.,* 2006: Harris, 2007).

Further, the results highlighted that interpersonal trust plays an important role for the execution of devolved HR functions. The employees should have complete trust on the personnel performing the core HR functions. A feeling of just and fair behavior enhances their commitment towards the organization (Mishra & Morrissey, 1990; Kim *et.al.,* 2004; Lewicki *et.al.,* 2006 Cain *et. al.,* 2015; Zarolia *et.al.,* 2017; Evans & Krueger, 2017). If the employees do not trust their leaders, it always creates a feeling of distrust. It is always said a feeling of distrust is more dangerous than the feeling of no trust at all (Skinner *et. al.,* 2004; Dietz & Hartong, 2006; Searle *et. al.,* 2011). India is a country with many diversified culture. The customers, bank employees and the top management belong to different culture and the supportive behavior within and outside the organization become crucial. Therefore, it becomes more eminent for them to trust each other in order to implement and execute the services effectively.

The findings of this paper strengthens the fact that employees are more comfortable when the functions are being performed by only the line managers (0.303) as compared to performed by only the HR managers (-0.025). It further adds that the interpersonal trust has levied great emphasis on the working of the HR managers who can now concentrate more on their new role of strategy makers and implementers (Nehles, 2017; Butkute, 2010; Crawshaw & Game 2015; Hasan et al., 2015; Intindola *et. al.,* 2017). It has been evident from the literature that the ultimate goal of both the line managers and the HR managers is the same it is just that their methods to achieve those goals are different. Thus, interpersonal trust among the three pillars of the organization that is line managers, employees and the HR managers (as leaders) helps in attaining organizational commitment. It has been catapulted that the role of line and HR manager as leaders is extremely challenging in its execution and interpersonal trust is mediating the execution of organizational commitment. Hence, interpersonal trust and commitment plays a very prominent role to achieve them effectively and efficiently.

Future Implications

It is evident from various studies that line managers are performing the HR functions recruitment & selection, training & development, performance appraisal & reward management, career development and grievance handling (Navío-Marco *et.al.,* 2019 Covin & Wales, 2019; Wales *et.al.,* 2019; Balyney *et.al.*, 2019; Aviso e*t.al.*, 2018; Francis & Baum, 2018; Keegan *et.al.*, 2018 ; Ruel & Gbur, 2017; Rimi, 2017; Perry & Kulik, 2008; McCracken *et.al.,* 2017; Nehles & Bondarouk, 2017; Mcdermott *et.al.*, 2015; Op de Beeck et.al., 2016; Gooderham *et.al.,* 2015; Solnet *et.al.,* 2015; Renwick, 2002; Watson *et.al.,* 2006: Harris, 2007). It was even highlighted in the HR discretion theory that the line managers perform their duties as per their self serving behavior but various studies have further questioned, do the line managers have the competencies or the skills to perform these HR functions (Yuzliza et.al., 2017 Francis & Baum, 2018; Choong, 2017; Nehles et al., 2006; Damodaran & Olphert, 2000; Brewster & Soderstrom, 1994; Ashton,1984). It has been further mentioned that HR knowledge, Communication, HR development, Conflict resolution, HR compliance, professional training competencies are required by line managers to perform the HR functions (Boyatzis ,1982; Spencer and Spencer, 1993; Jo, 2016). The above studies have highlighted the importance of identifying the competencies and potential required by the line managers to implement the HR functions effectively, thus this could form an interesting base for future studies.

REFERENCES

Agrawal, R. K. (2010). Relationship between line and human resource executives in Indian Organisations. *International Journal of Indian Culture and Business Management*, *3*(3), 285-306.

Alfes, K., Truss, C., Soane, E. C., Rees, C., & Gatenby, M. (2013). The relationship between line manager behavior, perceived HRM practices, and individual performance: examining the mediating role of engagement. *Human Resource Management*, *52*(6), 839-859.

Andrei, G., & Johanna, G. (2017). Delegation of responsibilities and decision-making authority in a Low Trust Country.

Aviso, K. B., Mayol, A. P., Promentilla, M. A. B., Santos, J. R., Tan, R. R., Ubando, A. T., & Yu, K. D. S. (2018). Allocating human resources in Organizations operating under crisis conditions:A fuzzy input-output optimization modeling framework. *Resources, Conservation and Recycling*, *128*, 250-258.

Azmi, F. T., & Mushtaq, S. (2015). Role of line managers in human resource management: empirical evidence from India. *The International Journal of Human Resource Management*, *26*(5), 616-639.

Bass, B. M., & Stogdill, R. M. (1990). Bass & Stogdill's Handbook of Leadership: Theory, Research, and Managerial Applications. Simon and Schuster.

Bassett-Jones, N. (2005). The Paradox of diversity management, creativity and innovation. 169-176.

Becker, T. E., Billings, R. S., Eveleth, D. M., & Gilbert, N. L. (1996). Foci and bases of employee commitment: implications for job performance. *Academy of Management Journal*, *39*(2), 464-482.

Bernoster, I., Mukerjee, J., & Thurik, R. (2018). The role of affect in entrepreneurial orientation. *Small Business Economics*, 1-22.

Blayney, C., Cormier-Macburnie, P., & Young, J. D. (2019, March). Facilitators and Barriers to Devolution of Human Resource Management in Canadian Hotels. In *2nd International Conference on Tourism Research* (P. 1).

Bond, S. & Wise, S. (2003). Family Leave Policies and Devolution to the line. *Personnel Review,* 32(1), 58-72.

Bond, S., & Mccracken, M. (2005). The Importance of training in operationalising HR policy. *Journal of European Industrial Training*, *29*(3), 246-260.

Bos-Nehles, A. C. (2010). The line makes the difference: line managers as effective HRM partners (Unpublished Phd Dissertation). Enschede, University of Twente. Retrieved from Http://Doc.Utwente.Nl/71866/1/Thesis_A_Bos-Nehles.Pdf.

Bos-Nehles, A., & Bondarouk, T. (2017). HRM implementation in Europe–The need for A dialogue between HR and line management. *European Journal of International Management*, *11*(5), 511-514.

Boxall, P., & Macky, K. (2007). High performance work systems and organisational performance: Bridging theory and practice. *Asia Pacific Journal of Human Resources*, *45*(3), 261-270.

Brewster, C And Larsen. H.H. (1992) Human resource management in Europe: Evidence from ten countries', *International Journal of Human Resource Management,* 3: 409-33.

Brewster. C. And Soderstrom, M. (1994) Human resources and line management'. In Brewster, C. And Hegewisch, A. (Eds) *Policy and Practice in European Human Resource Management.* London and New York: Routledge.

Brown, D., & Purcell, J. (2007). Reward management: On the line. *Compensation & Benefits Review*, *39*(3), 28-34.

Budhwar, P. S., & Sparrow, P. R. (1997). Evaluating Levels of Strategic Integration and Devolvement of Human Resource Management in India. *International Journal of Human Resource Management*, *8*(4), 476-494.

Butkute-Van De Voort, L. (2010) Does Devolution Make HR More Strategic?.

Caldwell, R. (2003).The Changing Roles of Personnel Managers: Old Ambiguities, New Uncertainties. *Journal of Management Studies*, 40(4), 983-1003.

Carson, K. D., & Carson, P. P. (2002). Differential Relationships Associated with Two Distinct Dimensions of Continuance Commitment. *International Journal Organization Theory and Behavior*, *5*(3-4), 359-381.

Chen, Y., Zhou, X., & Klyver, K. (2018). Collective Efficacy: Linking Paternalistic Leadership to Organizational Commitment. *Journal of Business Ethics*, 1-17.

Choong, P. Y. (2017). *An Exploratory Study on Human Resource Outsourcing* (Doctoral Dissertation, Universiti Tun Hussein Onn Malaysia).

Cooper, A. C., & Dunkelberg, W. C. 1986. Entrepreneurship and Paths to Business Owner-Ship. Strategic Management Journal, 7: 53-68.

Covin, J. G., & Wales, W. J. (2019). Crafting High-Impact Entrepreneurial Orientation Research: Some Suggested Guidelines.

Cox, T. H., & Blake, S. (1991). Managing Cultural Diversity: Implications for Organizational Competitiveness. *Academy of Management Executive*, 45-57.

Crawshaw, J. R., & Game, A. (2015). The Role of Line Managers in Employee Career Management: An Attachment Theory Perspective. *The International Journal of Human Resource Management*, *26*(9), 1182-1203.

Cunningham, I. And Hyman, J. (1995). Transforming the HRM vision into reality: The role of line managers and supervisors in implementing change. *Employee Relations*, *17* (8), 5-20.

Cunningham, I. And Hyman, J. (1999). Devolving human resource responsibilities to the line: beginning of the end or a new beginning for personnel?, *Personnel Review*, *28*(1/2), 9-27.

Darwish, T. K., & Singh, S. (2013). Does strategic human resource involvement and devolvement enhance organisational performance?: Evidence from Jordan. *International Journal of Manpower*, *34*(6), 674-692.

Depickere, A. (1999). Managing Virtual Working: Between Commitment and Control?, In Jackson, P. (Ed.), *Virtual Working: Social and Organisational Dynamics*, Routledge, London/New York, NY, 99-120.

Eisenberger, R., Fasolo, P., & Davis-Lamastro, V. (1990). Perceived organizational support and employee diligence, commitment, and innovation. *Journal of Applied Psychology*, 75, 51–59.

Fatima, N. (2017). Business Process Improvement Practices: Does human resource management really changed by implementing BPI principles in multi-national organization.

Feierabend, A., & Sender, A. (2017). When less is more: The role of line managers' HR involvement for the effects of job insecurity. In *Academy of Management Proceedings* , *2017*, (1),12229.

Francis, H. & Keegan, A. (2006). The changing face of HRM: In search of balance. *Human Resource Management Journal,* 16(3), 231-249

Francis, H. (2016). Human Resource Function and Business Partnering. In *Encyclopedia of Human Resource Management*. Edward Elgar Publishing Limited.

Francis, H., & Baum, T. (2018). HR transformation within the hotel industry: building capacity for change. *Worldwide Hospitality and Tourism Themes*, *10*(1), 86-100.

Gabe, T. M. (2001). The Effects of local taxes and spending on business startups. In *2001 Annual Meeting, August 5-8, Chicago, IL* (No. 20769). American Agricultural Economics Association (New Name 2008: Agricultural and Applied Economics Association).

Gerbing, D. W. & Anderson, J. C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research*, 25(May), 186-192.

Gilbert, C., De Winne, S., & Sels, L. (2011). The influence of line managers and HR department on employees' affective commitment. *The International Journal of Human Resource Management*, *22*(8), 1618-1637.

Gollan, P. J., Kalfa, S., & Xu, Y. (2015). Strategic HRM and devolving HR to the line: cochlear during the shift to lean manufacturing. *Asia Pacific Journal of Human Resources*, *53*(2), 144-162.

Gooderham, P. N., Morley, M. J., Parry, E., & Stavrou, E. (2015). National and firm-level drivers of the devolution of HRM decision making to line managers. *Journal of International Business Studies*, *46*(6), 715-723.

Gottardello, D., & Valverde, M. (2018). Human resource management outsourcing in Spanish firms: Evolution over time and Implication for Devolution. *Intangible Capital*, *14*(1), 56-73.

Guest, D. (1987). Human Resource management and industrial relations, *Journal of Management Studies*, *24*, 503-22.

Guest, D. E., & Bos-Nehles, A. C. (2013). HRM and performance: the role of effective implementation. *HRM and performance: Achievements and Challenges,* 79-96.

Hackett, R. D., Bycio, P., & Hausdorf, P. A. (1994). Further assessments of Meyer and Allen's (1991) three-component model of organizational commitment. *Journal of Applied Psychology, 79*(1), 15-22.

Hair, J. F., Black, W.C., Babin, B.J., Anderson, R.E. & Tatham, R. L. (2008). *Multivariate Data Analysis*. (Sixth Edition), India: Pearson Education

Hales, C. 1999. Leading Horses to Water? The Impact of decentralization on managerial behaviour. *Journal of Management Studies 36*, 831–51.

Hall, D. T., & Schneider, B. (1972). Correlates of organizational identification as a function of career pattern and organizational type. *Academy of Management Proceedings*, *1972* (1), 159-161.

Hall, L. And D. Torrington. 1998. Letting go or holding on: the devolution of operational personnel activities. *Human Resource Management Journal* 8: 41–55.

Harney, B., & Jordan, C. (2008). Unlocking the black box: line managers and HRM-performance in a call centre context. *International Journal of Productivity and Performance Management*, *57*(4), 275-296.

Hassan, M. A., Manso, N. N. A., Rahman, W. M. Z. W. A., & Kelana, B. W. Y. (2015). Do line managers' have 'linking pin' in HR roles?. *Intangible Capital*, *11*(1), 1-12.

Holt Larsen, H., & Brewster, C. (2003). Line management responsibility for HRM: What is happening in europe?. *Employee Relations*, *25*(3), 228-244.

Hutchinson, S., & Purcell, J. (2007). *Learning and the line: The role of line managers in training, Learning and Development*. London: CIPD.

Intindola, M., Weisinger, J. Y., Benson, P., & Pittz, T. (2017). The evolution of devolution in HR. *Personnel Review*, *46*(8), 1796-1815.

Ivancevich, J. M., & Gilbert, J. A. (2000). Diversity management time for a new approach. *Public Personnel Management*, 75-91.

Jones, O. (1996). Strategic HRM: The implications for Pharmaceutical R&D. *technovation*, 16(1), 21-32.

Kanter, R. M. (2003). *Challenge of organizational change: How companies experience it and leaders guide it*. Simon and Schuster.

Karim, N. H. A., & Noor, N. H. N. M. (2017). Evaluating the psychometric properties of Allen and Meyer's organizational commitment scale: A cross cultural application among Malaysian Academic Librarians. *Malaysian Journal of Library & Information Science*, *11*(1), 89-101.

Keegan, A., Bitterling, I., Sylva, H., & Hoeksema, L. (2018). Organizing the HRM function: responses to paradoxes, variety and dynamism. *Human Resource Management*, *57*(5), 1111-1126.

Keegan, A., Huemann, M., & Turner, J. R. (2012). Beyond the line: exploring the HRM responsibilities of line managers, project managers and the HRM department in four project-oriented companies in the Netherlands, Austria, the UK and the USA. *The International Journal of Human Resource Management*, *23*(15), 3085-3104.

Kulik, C. T., & Perry, E. L. (2008). When less is more: the effect of devolution on HR's strategic role and construed image. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in Alliance with the Society of Human Resources Management*, *47*(3), 541-558.

Küper, K. (2015). *Line managers' involvement in diversity management-An outlook into the future* (Bachelor's Thesis, University of Twente).

Kuvaas, B., Dysvik, A., & Buch, R. (2014). Antecedents and employee outcomes of line managers' perceptions of enabling HR practices. *Journal of Management Studies*, *51*(6), 845-868.

Larsen, H. H., & Brewster, C. (2003). Line management responsibility for HRM: What is happening in Europe? *Employee Relations*, 228-244.

Lee, S. M. (1971). An empirical analysis of organizational identification. *Academy of Management Journal*, *14*(2), 213-226.

Lengnick-Hall, C.A. and Lengnick-Hall, M.L. (1988). Strategic human resource management: A review of the literature and a proposed typology, *Academy of Management Review,* 13: 454-70.

Lewicki, R.J., Mcallister, D.J. and Bies, R.J. (1998). 'Trust and distrust: new relationships and realities, *The Academy of Management Review*, *23* (3), 438-58.

Lim, T. (2004). Relationships among organizational commitment, learning organization culture, and job satisfaction in one Korean Private Organization.

Liu, Y. (2017). Review of human resource management function of front line manager.

Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, *21*(1), 135-172.

Magotra, I. (2016). Why Employees remain silent: A study on service sector. *International Journal of Science Technology and Management*, *5*, 196-202.

Malik ME, Naeem B (2011). Role of spirituality in job satisfaction and organizational commitment among faculty of Institutes of higher learning in Pakistan. *Afr. J. Bus. Manage. 5*(4):1236-1244

Marchington, M. (1999). Professional qualification scheme: core personnel and development exam papers and examiners' reports May 1999, Paper Given to the IPD Professional Standards Conference, University of Warwick, July, Institute of Personnel and Development, 1-12

Marchington, M. (2001), Employee involvement at work, in Storey, J. (Ed.), Human Resource Management: A Critical Text, Thomson, London*, 2*, 232-52.

Mckenny, A. F., Short, J. C., Ketchen Jr, D. J., Payne, G. T., & Moss, T. W. (2018). Strategic entrepreneurial orientation: configurations, performance, and the effects of industry and time. *Strategic Entrepreneurship Journal*, *12*(4), 504-521.

Mengenci, C. (2015). Antecedents and consequences of organizational fear and silence behavior: evidence service sector from Turkey. *International Business Research*, *8*(5), 223.

Morhman, S.A. And Lawler, E.E. II (1999), The new human resources management: creating the strategic business partnership", In Schuller, R.S. And Jackson, S.E. (Eds), Strategic Human Resource Management, Blackwell, Oxford, 433-47.

Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The Measurement of Organizational Commitment. *Journal of Vocational Behavior, 14*, 224-247.

Mutlu, M. (2014). *Line Managers' Influence on Innovative Behavior of Employees* (Bachelor's Thesis, University of Twente).

Nehles, A.C., Van Riemsdijk, M.J., Kok, I. & Looise, J.C. (2006). implementing human resource management successfully: The role of first-line managers. *Management Review*, 17(3), 256-273.

Op De Beeck, S., Wynen, J., & Hondeghem, A. (2016). HRM implementation by line managers: explaining the discrepancy in HR-line perceptions of HR devolution. *The International Journal of Human Resource Management*, *27*(17), 1901-1919.

Park, S. (2007). Relationships among managerial coaching in organizations and the outcomes of personal learning, organizational commitment, and turnover intention. *Dissertation Abstracts International, 68*(11), B. (UMI No. 3287827)

Penrose, E. T. 1959. The theory of the growth of the firm. Oxford, England: Oxford University Press.

Pereira, C. M., & Gomes, J. F. (2012). The strength of human resource practices and transformational leadership: impact on organisational performance. *The International Journal of Human Resource Management*, *23*(20), 4301-4318.

Perry, E. L., & Kulik, C. T. (2008). The devolution of HR to the line: implications for perceptions of people management effectiveness. *The International Journal of Human Resource Management*, 19(2), 262-273.

Peters, P., Den Dulk, L., & De Ruijter, J. (2010). May I work from home? views of the employment relationship reflected in line managers' Telework Attitudes in Six Financial-Sector Organizations. *Equality, Diversity and Inclusion: An International Journal*, *29*(5), 517-531.

Rahim, M. A., Psenicka, C., Nicolopoulos, A. G., & Antonioni, D. (2018). Relationships of Leader power to subordinates' styles of handling conflict and organizational commitment: A comparison between the US and Greece. In *Current Topics in Management* 187-204.

Rawat, P. S., Rawat, S. K., Sheikh, A., & Kotwal, A. (2019). Women organization commitment: role of the second career & their leadership Styles. *Indian Journal of Industrial Relations*, *54*(3).

Ready, D. A., & Conger, J. A. (2003). Why leadership-development efforts fail. *MIT Sloan Management Review*, *44*(3), 83-88.

Redditt, J., Gregory, A. M., & Ro, H. (2019). An examination of organizational commitment and intention to stay in the timeshare industry: variations across generations in the workplace. *International Journal of Hospitality & Tourism Administration*, *20*(2), 206-225.

Reilly, P. A., Tamkin, P., & Broughton, A. (2007). *The changing HR function: transforming HR?*. Chartered Institute of Personnel and Development.

Reilly, P., & Williams, T. (2016). Strategic HR: Building the capability to deliver. Routledge.

Renwick, D. 2003. Line manager involvement in HRM: An inside view. *Employee Relations 25*(3): 262–80.

Rimi, N. N., Yusliza, M., Walters, T., & Basher Rubel, M. R. (2017). The role of devolution in HR line manager collaboration and HRM effectiveness relationship: A study of private commercial banks in Bangladesh. *Global Business and Organizational Excellence*, *36*(4), 43-51.

Ruel, H., & Gbur, M. (2017). HRM frames of HR managers and line managers: congruence, consequences and context. *European Journal of International Management*, *11*(5), 557-580.

Sayðan, Fitnat Nazlý. (2011). Relationship between affective commitment and organizational silence: A conceptual discussion. *International Journal of Social Sciences and Humanity Studies, 3*(2).

Schollhammer, H. 1982. Internal corporate entrepreneurship. In C. A. Kent, D. L. Sexton, & Lumpkin and Dess K. H. Vesper (Eds.), Encyclopedia of Entrepreneurship: 209-223. Englewood Cliffs, NJ: Prentice Hall.

Schuler, J., Schneider, S., Wales, W. J., & Baum, M. (2018, July). Testing ontologies of entrepreneurial orientation. In *Academy of Management Proceedings*, 2018(1), 11357.

Schuler, R.S., Dowling, PJ. And Decieri, H. (1993) An integrative framework of strategic intemational human resource management, *Intemational Journal of Human Resource Management, 4:* 717-64.

Schuler. R.S. (1992). Linking the people with the strategic needs of the business, *Organisational Dynamics,* 18-32.

Schumpeter, J. A. 1934. The theory of economic development. Cambridge, MA: Harvard Uni-Versity Press.

Schumpeter, J. A. 1942. Capitalism, Socialism, and Democracy. New York: Harper & Brothers.

Sheldon, M. E. (1971). Investments and involvements as mechanisms producing commitment to the organization. *Administrative Science Quarterly*, *16*(2).

Shen, J. (2005). Human resource outsourcing: 1990-2004. *Journal of Organisational Transformation & Social Change*, 2(3), 275-296

Sikora, D. M., & Ferris, G. R. (2014). Strategic human resource practice implementation: the critical role of line management. *Human Resource Management Review*, *24*(3), 271-281.

Sinha, A. K., Kumar, R., HOD, P. S., & HOD, G. B. (2017). Impact of organization's culture on employees' commitment: evidence from five Homogeneous units under a group of company operating in different States in India. *Journal of Business Studies Quarterly*, *8*(3), 89.

Sparrow, P., Schuler, R. S., & Jackson, S. E. (1994). Convergence or divergence: human resource practices and policies for competitive advantage worldwide. *International Journal of Human Resource Management*, *5*(2), 267-299.

Storey. J. (1992) Developments in the Management of Human Resources. London: Blackwell Business.

Storey. J. And Sisson, K. (1994) Managing Human Resources and Industrial Relations. Buckingham: Open University Press.

Sujan, B., Bhasin. & Mushtaq, S. (2017). Demonetization and devolution of HRM functions: Bad or the good facet!!!. *Proceedings of IIT Conference*

Takeuchi, N., Wakabayashi, M. & Chen, Z. (2003). The strategic HRM configuration for competitive advantage: evidence from Japanese firms in China and Taiwan. *Asia Pacific Journal of Management*, 20, 447-480.

Thornhill, A. And Saunders, M.N.K. (1998), "What if line managers don't realize they're responsible for HR?", Lessons from an organization experiencing rapid change, *Personnel Review*, 27(6), 460-76.

Townsend, K. (2013). To What extent do line managers play a role in modern industrial relations?. *Asia Pacific Journal of Human Resources*, *51*(4), 421-436.

Townsend, K., Wilkinson, A., Allan, C., & Bamber, G. (2012). Mixed signals in HRM: the HRM role of hospital line managers. *Human Resource Management Journal*, *22*(3), 267-282.

Trullen, J., Stirpe, L., Bonache, J., & Valverde, M. (2016). The HR department's contribution to line managers effective implementation of HR practices. *Human Resource Management Journal*, *26*(4), 449-470.

Truss, C., Gratton, L., Hope-Hailey, V., Stiles, P. & Zaleska, J. (2002). Paying the piper: choice and constraint in changing HR functional roles. *Human Resource Management Journal*, 12 (2), 39-63.

Tucker, B. A., & Russell, R. F. (2004). The influence of the transformational leader. *Journal of Leadership & Organizational Studies*, *10*(4), 103-111.

Tufail, M. S., Muneer, S., & Ishtiaq, M. (2016). Job characteristics with task and contextual performance: moderating role of procedural justice for front line managers. *Journal of Social Sciences*.

Ulrich, D. & Brockbank, W. (2005). The HR value proposition. Boston, MA: Harvard Business School Press.

Ulrich, D. (1998), A new mandate for human resources", *Harvard Business Review*, 124-34.

Valverde, M. (2001). Mapping the HRM function: an exploratory study of responsibilities and agents in the managing of people. *Universitat Rovira I Virgili, Reus.*

Valverde, M., Ryan, G. & Soler, C. (2006). Distributing HRM responsibilities: A classification of organizations. *Personnel Review,* 35(6), 618-636.

Van Dijk, M. S. (2004). Understanding the employee-organization relationship: A study measuring organizational commitment, psychological contracts, and captivation and identification in three Government organizations. *Dissertation Abstracts International, 65*(11), 4080

Wales, W., Gupta, V. K., Marino, L., & Shirokova, G. (2019). Entrepreneurial orientation: international, global and cross-cultural research. *International Small Business Journal*, *37*(2), 95-104.

Wang, X. (2005). Relationships among organizational learning culture, job satisfaction, and organizational commitment in Chinese State-Owned and privately owned enterprises. *Dissertation Abstracts International, 67*(01), 266.

Webster, F. A. 1977. Entrepreneurs and ventures: An attempt at classification and clarification. *Academy of Management Review*, 2, 54-61.

Wentling, R. M., & Palma-Rivas, M. (1998). Current status and future trends of diversity initiatives in the workplace: diversity experts' perspective. *Human Resource Development Quarterly*, 235-253.

Whittaker, S., & Marchington, M. (2003). Devolving HR responsibility to the line: threat, opportunity or partnership?. *Employee Relations*, *25*(3), 245-261

Yusliza, M. Y., Choo, P. W., Jayaraman, J., Rimi, N. N., & Muhammad, Z. (2019). HR line manager's reflections on HRM effectiveness through HR roles and role stressors. *The South East European Journal of Economics and Business*, *14*(1), 34-48.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Segmenting Tourists with Servicescape Satisfaction and Predicting Recommendation Intention: A Study of JKTDC

Rachita Sambyal, Amandeep Singh Marwaha and Anupreet Kaur Mavi

Abstract: Tourism being a commercial activity, its market-portfolio management requires thorough knowledge of socio-demographic factors such as age, gender, income, length of stay, education level, ethnicity etc. The purpose of this study is two folds. First, the study segments tourists staying at JKTDC hotel establishments on the basis of servicescape attributes like interiors & exteriors of hotel, quality of food & beverages, prompt , reliable & reasonable amenities & facilities and natural & pollution free environment of JKTDC. In the second step, the segments so obtained are assessed on their likelihood of recommendation to their family and friends. Based on the primary data collected from 253 tourists, the results of k-mean cluster and discriminant analysis, four clusters were identified. Different servicescape attributes predict tourist's satisfaction and recommendation intention. The findings allow hotel managers to adapt the service mix elements to different segments by identifying the type of tourists as soon as he enters the servicescape. The study suggested aesthetically designed new construction, adding variety of ethnic cuisines in food & beverages, loyalty program for different segments of tourists, initiating strategic tie-ups with the other tourism facilitating agencies in the vicinity areas, opening of in-house souvenir shops and regular training of the hotel staff to ensure enhanced positive impact of the hotel brand on existing and prospective tourists.

Key Words: Servicescape, segmentation, satisfaction, recommendation, JKTDC

Introduction

Destination marketers have renewed their focus from price based destination competition to demand management by segmenting, targeting and positioning of products intended to satisfy particular type of consumers. Tourists exhibits

Rachita Sambyal is Assistant Professor, UIAMS, Panjab University, Chandigarh; Dr. Amandeep Singh Marwaha is Training and Placement Officer, UIAMS,Panjab University, Chandigarh and Dr. Anupreet Kaur Mavi is Assistant Professor, UIAMS, Panjab University , Chandigarh.

high heterogeneity and their efficacious market segmentation provides data which is practical, usable and easily translatable into building tourist specific strategy. In tourism literature, varied segmentation techniques and their respective categories are available. These are cognitive image (Prayag, 2012) , type of tourists & amount spent (Dolnicar, 2005) , disabled and not disabled tourists (Israeli, 2002), business & leisure tourists (Kashyap and Bojanic, 2000), vacation preferences (Klemm, 2002), country of origin (McKercher, 2002) etc. In marketing and tourism literature, socio demographic variables such as nationality, age, income, education, gender, occupation etc. have been considered as quite usable as they are easy to identify, measure and interpret. Jammu and Kashmir is one of the sought after tourist destinations in India owing to its picturesque landscapes, magnificent valleys, natural lakes, snow capped mountains, an array of different climates (extreme cold in Ladakh, pleasant in Kashmir and warm in Jammu). It also provides opportunity for adventure activities like snow skiing, mountain trekking skiing, trekking, fishing, rafting; religious tourism catering Hindu, Buddhist & Sufi sects; historical and culture tourism and is considered heaven for culinary and gastronomy tourists .Tourism in J&K is fastest growing sector and a significant contributor to the state's GDP, foreign exchange earnings, employment generation, tax revenue yield besides ensuring balanced regional development. During 2017-2018, the total tourist arrivals to the state reached more than 14.32 million out of which 14.24 million were domestic tourists and 79.77 thousand foreign tourists. Jammu and Kashmir Tourism Development Corporation (JKTDC) was incorporated under the Companies Act 1956 in 1970 with the objective to carry on the business of tourism in the state. At present it is providing accommodation, food & travel services through its hotels and cafeterias spread over different tourist destination in J&K state. The available literature on J&K tourism primarily focuses on diverse dimensions such as tourism promotion, tourist infrastructure, tourism policy & organization, destination branding, tourism policy & organization, impact of armed conflict on tourism sector, problems faced by tourism sector, the level of job satisfaction & its relationship with workers' productivity etc. Researches on tourists' perception & experiences with regard to servicescape offered by JKTDC is scanty and sparsely touched. The present study assesses and measure the experiences of JKTDC tourists with regard to interiors and exteriors of hotel, quality of food and beverages, prompt, reliable & reasonable amenities & facilities and natural & pollution free environment, brand of the hotel, training & responsiveness of the hotel staff.

Review of Literature

Hospitality is a service industry, hence it becomes difficult to evaluate owing to its deliverable to be intangible. It is highly depended on its physical evidence and servicescape to deliver service experience. Servicescape is a complex amalgam of interiors & exteriors, décor, ambient conditions, space, signs, symbols, artifacts humanistic and cultural hints (Bitner, 1992; Parasuraman et al, 1985; Namasivayam and Lin, 2004; Lin & Mattila (2010, Johnston,1995;. Lim and Cooper, 2009; Lin, 2004; Lee, S.& Lee, H., 2015; Medabesh and Upadhyaya, 2012; Hartline and Jones, 1996; Arnould et al., 1998; Dong and Siu, 2013). While servicescape plays an important role in influencing customer satisfaction (Jenkins, 1999), its likelihood to recommend to family & friends, building positive image and word-of-mouth (WOM) yield benefits to firm in the long run. Several studies have demonstrated positive relationship between the servicescape and customers' emotional & behavioral response, satisfaction, loyalty, attitude, revisit intention and word of mouth. Lockwood & Pyun (2019) studied the influence of servicescape variables on emotional and behavioural responses on a sample of respondents collected from five star hotels of London. The result showed that aesthetic quality, functionality, atmosphere, spaciousness and physiological conditions have significant association with customer's pleasure and arousal with R^2 values 0.504(.000) and 0.298(.000) respectively. The study concluded that only 'aesthetic quality', ,' atmosphere', 'spaciousness' and 'physiological conditions' leads to variance in pleasure while 'aesthetic quality', 'atmosphere', 'spaciousness' and 'physiological conditions' influences the arousal. Sukhu et al (2018) administered a survey through Mturk to the people who had recently stayed at an upscale hotel at US to understand the relationship between the beliefs about servicescape of the hotels and customer satisfaction, emotion and henceforth word of mouth. After analysis of the data through CF, the results depicted that servicescape element social public, room, ambiance and green attitude indicated significant positive relationship with satisfaction (γ= 0.23, $p < 0.05$) and emotion ($\gamma = 0.55$, $p < 0.05$).The relationship of satisfaction and emotion with the WOM is also significant with values ($\gamma = 0.20$, $p < 0.05$), and ($\gamma = 0.62$, $p < 0.05$) respectively. Durna et al. (2012) in their study analyzed the data collected from 410 hotel businesses in the Antalya region (Turkey) to conclude that servicescape factors significantly influence behavioral intentions of the consumers and the consumers who are satisfied, keep on revisiting the same businesses and remain for the longer time. It was also observed that in comparison to substantive staging of servicescape communicative staging of the servicescape fully mediated the revisit intention and WOM. Adeleke & Ogunsusi (2019) evaluated the impact of educational status on the usage of telecommunication systems among tourists visiting Lekki Conservation Centre (LCC) and Lufasi Nature Park (LNP) in Lagos, Nigeria. Based on the data collected through structured questionnaire from 231 respondents and analyzed using regression analysis, the results revealed that the educational status of tourists influenced the use of telecommunication in getting information about nature park tourism destinations. Mpotaringa & Hattingh (2019) provided insight into the demographics and consumer behavior of visitors to a motorsport event, hosted annually in the Northern Cape Province, South Africa. Data were collected from 255 participants and attendees' who were willing to complete the questionnaire. The study found significant correlation between income & type of accommodation, income & amount spent on food and beverages and no correlation between income & the type of media that influenced attendance of the event. Mazilu & Mitroi (2010) examined the impact of demographics sub divided into age, family life cycle, income, education level, nationality and religion on tourism market in Romania. The study found that income-wise, poor tourists rarely resort to tourism. Average conditioned tourists' are more demanding in relation to the comfort, more willing to spend money on various services and open to the new activities compared to luxury travellers who are demanding in terms of the quality of the services as well as willingness to pay. People with elementary or middle education while travelling have desire to rest and fun while people with higher qualification have reasons related to status, prestige or self-fulfillment. Wang et al. (2018) investigated tourist food consumption patterns and food choice motives while on trips, in comparison to their food behavior in the everyday life scenario. The study found gender as a significant variable in explaining inconsistencies in food consumption behavior. Kastenholz et al. (2005) explored motivations, socio-demographic profiles, consumption patterns and destination images of tourists visiting Coimbra. Results are derived on the basis of 322 valid responses and emergence of two clusters. Cluster comprising relatively older, wealthier and more educated respondents, tended to mostly foreign tourists interested in museum, travelled with their partner or family, incurred higher level of expenditure, opted hotel accommodation, rent-a-car arrangements and internet reservation of transportation. The second cluster was relatively younger, poorer and less educated, included Portuguese & students, travelled alone or with friends, preferred bed & breakfast accommodation and the train as a means of transportation. Dolnicar and Kemp (2009) provided the basis of market segmentation based on tourism researches over the past decades. The common bases identified were behavioral, geographic, socio-demographic and psychographic. Among the socio-demographic variables gender, age, life cycle stage, disability were common. The study suggested that future segmentation studies should include reasonable sample size based on Formanns' rule and structure of clustering and cluster solutions should be validated using both stability and external validity measures. Karen et al. (2017) investigated the effects of reviewer expertise on hotels' online reputation, online popularity and financial performance. Based on quarterly data of online reviews of 730 hotels from Trip Advisor between 2005 & 2011, the study found that reviewer's expertise impacts average rating and financial performance of hotels. Hudson et al. (2017) considered stay characteristics identified by the self-determination theory i.e. autonomy, competence and relatedness that enhance guest's psychological well-being at the wellness facility in US. The study proposed that external environments which includes novel and variety of group activities with family (massive engagement from the staff), meditation, seminars along with the unique guest experiences which fosters the feeling of relatedness, mindfulness, autonomy in guests leads to guest's wellbeing. Ozdemir &Yolal (2016) explored behavioral characteristics of international tourists of seven nationalities visiting Istanbul on three dimensions namely shopping, activities and social interaction from the data provided by the 346 tourist guides. A comparative study among the tourists showed that all the cultural differences and similarities should be considered by the destination manager while forming tour groups when catering to international tourists, planning tourists' offers & marketing activities; multinational tourist grouping in the same tour should be avoided and group language should be used for socialization rather than an international language. Dang and Huang (2014) used demographic characteristics to compare overall tourists' satisfaction and found that nationality, age, occupation and monthly income had no significant impact on it, but, significant difference in satisfaction was found by education. Bertan & Altintaº (2013) assessed the destination perceptions of tourists visiting the Pamukkale, a thermal tourism centre located in Denizli-Turkey. Data were collected through survey from 308 respondents and assessment of perception was made on the dimensions of age, education and income level. The results of one-way variance analysis showed that the tourists with 2 years and 4 years degree education preferred local transport as means of conveyance than tourists with postgraduate degree. Tourists with primary education levels were more positive towards the travelling with the tour operators than high school and 2-year degree holders. Primary education holders were more satisfied with the service quality of the accommodation facilities than the higher degree holders. On the age dimensions, younger tourists were more satisfied with the atmosphere, homely environment and safety of the destination and older tourists were more satisfied with the gift/accommodation prices.

Existing literature has revealed the extent which revisit and recommendation intentions are predicted by satisfaction with the servicescape attributes. But tourists also exhibit a varied response owing to their different demographic characteristics. So, this study may provide insight to the marketing professions and hotel managers to understand differential clustering that exits amongst the tourists visiting hotels so that a customized service packages can be provided. This will enhance satisfaction and revisit intention amongst the tourists.

Objectives of the Study

Based on secondary literature, following objectives have been set for the study:

- To segment tourists on the basis of their satisfaction towards servicescape of JKTDC.

- To establish the association between tourists' demographic characteristics and their perception towards servicescape of JKTDC
- To elicit the factors which influence tourist satisfaction and recommendation intention.

Research Methodology

A self-designed questionnaire was used to collect data from the tourists staying at JKTDC hotel establishments situated in Jammu region. The questionnaire was sub divided into demographic information: Gender, age, income, marital status, nationality, occupation, name of the hotel establishments, number of days stayed at JKTDC, sources of information, state to which tourists belonged; 9 ordinal statements with regard to servicescape of JKTDC and open ended statements to record suggestions, was framed after reviewing literature and discussions with subject experts. After pre testing on 30 tourists and deleting erroneous statements & statement having zero response, it was distributed among 300 tourists staying at JKTDC establishments in Jammu region. Of the 300 hundred questionnaires distributed and only 253 responses were found suitable for further analysis, thereby representing the response rate of 84.3. Items in questionnaire were generated from researches carried by Pearce and Stringer (1991), Eagly and Chaiken (1993), Knutson (1988),Cadotte and Turgeon(1988), Ananth et al.(1992), Berry and Parasuraman (1991), Barsky and Labagh's (1992), Lovelook (1996), Lockyer (2002), Dolnicar and Otter (2003), Yavas & Babkus (2005), Sohrabi et al. (2012), Guzel and Apaydin(2016), Breitsohl & Garrod (2016), Baniya and Thapa (2017) and Jensen et al. (2017). Since JKTDC hotel establishments were located in distinct geographical areas, judgment sampling was carried for collecting responses from tourists, the criteria being 1-2 days' stay in JKTDC establishment and willingness to respond.

Data Analysis

The Cronbach reliability of nine statements ranged from 0.686 to 0.837. Hotel-wise, percentage of respondents contacted in descending order were Hotel Jammu Residency (49.3), TRC Katra(13.8), JKTDC Yatri Niwas Katra (9.1), JKTDC TB Katra (7.5), JKTDC Sanasar Resort (6.3), JKTDC Patnitop Resort (5.5), JKTDC Ramban (4.3), JKTDC Batote Resort (3.2), JKTDC Kud Resort (3.2) and JKTDC Mansar Resort (3.2). Gender-wise, 57.7% respondents were male and the remaining 42.3% female. Among the Indians, the percentage distribution across different states were found to be Delhi (16.6%), J&K (15.8%), Punjab (15.0%), MP(8.3%), Bihar (9.1%), Karnataka(8.3%) , Maharashtra(8.3%), West Bengal (5.1%), Rajasthan (4.0%) and Gujarat (3.2%). Annual income-wise, distribution of respondents was less than Rs. 2 lakhs (5.9%), Rs.2-5 lakhs (2.4%), Rs.5-10 lakhs (11.5%), more than 10 lakhs (80.2%). Age-wise distribution of respondents below 30 yrs., 31-40 yrs., 41-50 yrs., 51-60 yrs. and above 61 yrs. and their respective number and percentage falling in each were 10(4.0%), 106(41.9%), 128(50.6%),2(0.8%),7(2.8%)**.** Occupation-wise, self employed form the bulk around (62.8%) followed by Govt. employees (19.0%), students (3.2%), unemployed 5%) and others (9.5%). Marital status- wise, majority were married (91.7 %), followed by single (7.9%) and divorced and others each form 0.4%. 55.3% of the respondents had no prior record of staying in any JKTDC hotel, 30.4% (1-2 times),7.1 % (3-4 times) and 7.1% (more than 4 times).Average stay in a trip was one day (17.0%),2-3 days (57.3%) and 4-7 days(25.7).32.8 relied on visit to information centre for information about JKTDC followed by television/internet (26.9), word of mouth (21.7), travel guides (9.5) and least by books /brochures & magazines (9.1).

K mean Euclidean clustering algorithm combines with the discriminant analysis (Prayag, 2010; Park and Yoon, 2009) was applied to identify the unique and homogenous sets of visitors based on the satisfaction level with the servicescape attributes of the JKTDC hotel establishments in Jammu region. Initially three, four and five clusters were specified and the optimal cluster solution was chosen after being validated using discriminant analysis (Sirakaya et al., 2003).Table 1 provides summary of the results of discriminant analysis and four cluster solution offered the highest percentage of corrected classification of respondents (98.8%) in comparison to three cluster (96%) and five cluster (94.4%), hence the solution was retained for further analysis

Table 1: Discriminant analysis results for various clusters

Cluster solution	Eigen value	% of variance explained	Canonical correlation	Wilks' Lambda	Chi-square	Significance level	% of overall correct classification
Three clusters							
DF1	8.905	88.4	.948	.046	757.80	.000	96%
DF2	1.171	11.6	.734	.416	191.50	.000	
Four clusters							
DF1	13.864	86.2	.966	0.06	1024.432	.000	98.8%
DF2	1.432	8.9	.767	0.231	360.512	.000	
DF3	0.780	4.9	.662	0.562	141.876	.000	
Five clusters							
DF1	11.915	82.2	.961	0.013	1064.526	.000	98.4%
DF2	1.443	10.0	.769	0.168	437.715	.000	
DF3	0.599	4.1	.612	0.409	218.853	.000	
DF4	0.528	3.6	.588	0.655	103.818	.000	

The cluster means indicated by Table 2 indicated that Cluster I, comprising of 67 were generally satisfied (food and beverages, amenities & facilities, staff responsiveness, staff training, hotel image) with the five, moderately satisfied (interiors and exteriors of hotels, surrounding environment)with two and not satisfied with two attributes (homeliness of hotel, safety) of the hotel servicescape. Cluster II comprised of 31 respondents and were moderately satisfied with all the attributes of the servicescape except for the homeliness of the hotels.

Table 2: Cluster means for satisfaction with the servicescape attributes

Scale items	Cluster-I	Cluster-II	Cluster-III	Cluster-IV
1. The interiors and exteriors of the hotel are attractive and appealing	3.8955	3.9032	4.0611	3.4583
2. Food & beverages are of good quality	4.0299	3.6774	3.9008	3.2083
3. The overall environment of this hotel is homely	1.2687	2.4194	4.6183	4.4583
4. All the amenities and facilities of the hotel are prompt, reliable, reasonable and good	4.0448	3.6452	4.0687	2.3750
5. The surrounding environment of the hotel is good and disturbance free	3.9701	3.4194	3.8550	3.1667
6. The staff responds to my requests in a timely manner	4.1343	3.8387	3.9847	3.4167
7. The staff of the hotel is trained to cater to needs and demands of the visiting customer	4.2537	3.3871	4.6565	4.5417
8. I feel safe and secure in the hotel	1.0149	3.3226	4.4504	4.3750
9. The hotel carries good image and brand value online as well as offline	4.4478	3.4516	4.6260	4.6250

Cluster III comprised of 131 respondents of which satisfaction was high with six attributes of hotel (interiors, homeliness of the hotel, amenities and facilities, staff's responsiveness and training, safety and images) and moderately satisfies with two attributes only.Cluster IV comprising of 24 respondents showed moderate satisfaction with 3 attributes, high satisfaction with four attributes and dissatisfaction with amenities & facilities.

Tourist Clustering and its Association with Tourist's Demographic Characteristics

In the next phase, profiling of the cluster was done on the basis of their demographics using Chi-square test. Table 3 shows existence of association between servicescape of JKTDC with demographic characteristics of tourists' namely, gender, age, annual income, number of previous stay, marital status, nationality, occupation, sources of tourists' information, domicile of tourists', regional grouping tourists and location of JKTDC hotel. Chi-square values in respect of age, marital status and nationality with perception of tourists regarding servicescape could not be ascertained due to low response rate and consequently 10-50% of the cells of the crosstabs table had expected values lower than 5. No significant association was observed between low and high mean response to JKTDC services by respondents sub-divided into gender ($ð^2$=0.017,p>0.897), number of previous stay by respondents (X^2=3.326,p>.334) and sources of tourists' information (X^2=4.100,p>0.393). Annual income-wise (X^2=11.072, p<0.011), occupation(X^2=12.977, p<0.011), domicile of tourists(X^2=34.941, p<0.000), regional grouping (X^2=14.185, p<0.014) and location of JKTDC hotel(X2=11.930, p<0.001), the association were found to be significant. Thus, tourists exhibit differential perception towards the servicescape with regards to their gender, number of days of previous stay, sources of tourists' information and have the similar expectation from the servicescape when categorized on the basis of annual income, occupation, domicile of tourists, regional grouping and location of JKTDC hotel.

Table 3: Profiling of the clusters on the basis of demographic characteristics

Socio-demographic	Cluster-I	Cluster-II	Cluster-III	Cluster-IV	×^{2}
Gender					2.396(0.494)
Male	40 (27.4)	14(9.6)	77(52.7)	15(10.3)	
Female	27(25.2)	17(15.9)	54(50.5)	9(8.4)	
Age (Yrs.)					
Below 30 years	0(0.0)	1(10)	7(70.0)	2(20)	15.947(0.194)
31-40	30(28.3)	15(14.2)	50(47.2)	11(10.4)	
41-50	31(24.2)	14(10.9)	72(56.3)	11(8.6)	
51-60	2(100)	0(0)	0(0.0)	0(0.0)	
61 and above	4(57.1)	1(14.3)	2(28.6)	0(0.0)	
Annual household income (Rs.)					
Less than 2 lakhs	0	2(13.3)	13(86.7)	0	19.556(.021)

Contd...

Contd...

2-5 lakhs	0	0	5(83.3)	1(16.8)	
5-10 lakhs	13(44.8)	3(10.3)	9(31.0)	4(13.8)	
More than 10 lakhs	54(26.6)	26(12.8)	104(51.2)	19(9.4)	
Number of previous stays taken in a year					
None	33(23.6)	19(13.6)	74(52.9)	14(10)	36.103(.000)
1-2 times	16(20.8)	7(9.1)	47(61.0)	7(9.1)	
3-4 times	3(16.7)	4(22.2)	9(50)	2(11.1)	
More than 4 times	15(83.3)	1(5.6)	1(5.6)	1(5.6)	
Number of days staying on the trip					
1 day	11(25.6	6(14.0)	22(51.2)	4(9.3)	24.191(.000)
2-3 days	51(35.2)	18(12.4)	60(41.4)	16(11.0)	
4-7 days	5(7.7)	7(10.8)	49(75.4)	4(6.2)	
Marital status					
Single	6(30.0)	2(10.0)	11(55)	1(5.0)	1.642(.950)
Married	61(26.0)	29(12.5)	119(51.3)	23(9.9)	
Divorced	0(0)	0(0)	1(100)	0	
Employment					
Unemployed	3(21.4)	4(28.6)	7(50.0)	0(0.0)	26.164(.010)
Student	1(12.5)	1(12.5)	5(62.5)	1(12.5)	
Govt. employed	5(10.4)	4(8.3)	37(77.1)	2(4.2)	
Self employed	47(29.6)	21(13.2)	73(45.9)	18(11.3)	
Any other	11(11)	1(4.2)	9(37.5)	3(12.5)	
State of the tourist					
North India	40(33.3)	14(11.7)	56(46.7)	10(8.3)	23.973(0.021)
Central India	13(35.1)	3(8.1)	19(51.4)	2(5.4)	
South India	0(0)	3(14.3)	13(61.9)	5(23.8)	
East India	3(8.3)	4(11.1)	25(69.4)	4(11.1)	
West India	11(28.2)	7(17.9)	18(46.2)	3(7.7)	
Level of satisfaction					
Dissatisfied	1(10.0)	0(0.0)	1(10.0)	8(80.0)	124.572(0.00)
Neutral	1(5.0)	12(60.0)	2(10.0)	5(25.0)	

Contd...

Contd...

Satisfied	63(29.6)	16(7.5)	123(57.7)	11(5.2)	
Strongly satisfied	2(20.0)	3(30.0)	5(50.0)	0(0.0)	
Recommendation intention					
Not likely	2(12.5)	8(50.0)	1(6.3)	5(31.3)	169.586(0.000)
Neither likely not unlikely	2(11.1)	11(61.1)	1(5.6)	4(22.2)	
Likely	60(49.2)	12(9.8)	48(39.3)	2(1.6)	
Very likely	3(3.1)	0(0.0)	81(83.5)	13(13.4)	

Predictors of Tourists' Satisfaction and Recommendation Intention

Two regression models were estimated to identify the servicescape attributes that were the most important predictor of behaviour loyalty using proxies of satisfaction and likelihood of recommendation to the family and friends. The first model specified overall satisfaction with the servicescape attributes during the stay as the dependent variable while nine servicescape attributes were specified as the independent variables. In the second model, the dependent variable was likelihood of recommendation to the family and friends was specified as the dependent variable while retaining all attributes of the servicescape as the independent variables. For both the models forward stepwise regression method was used to filter out the important servicescape attributes. The result (Table 4) indicated that seven attributes were significant predictors of recommendation and five for the satisfaction. The seven attributes of the servicescape explained 58.1 % of variance in recommendation to the family and friends. Improving the attributes such as training of the hotel staff, making the hotel environment homely, improving the amenities & facilities, branding of the hotel online and offline, creating a disturbance free environment and improving food& beverages can improve the intention to recommend by a tourist by 47%, 22.8%, 14.8%, 19.6%, 12%, 11% respectively. Five attributes of the servicescape explained 54% variance in overall satisfaction with the hotel and staff. Improving the attributes like food and beverages, creating disturbance free environments, responsiveness of the staff, interiors and exteriors of the hotel and amenities lead to an increase of 41.4%, 22%,16.7%, 12.8% and 13 % respectively in the satisfaction of the tourists.

Table 4: Regression model for tourists' satisfaction and recommendation intention

Recommendation intention	R^2	R^2Ä	Standardized â
The staff of the hotel is trained to cater to needs and demands of the visiting customer	0.437	0.437	0.478
The overall environment of this hotel is homely	0.476	0.039	0.228
All the amenities and facilities of the hotel are	0.504	.028	0.148

Contd...

prompt, reliable , reasonable and good			
The hotel carries good image and brand value online as well as offline	0.535	0.031	0.196
The staff responds to my requests in a timely manner	0.556	0.022	-0.220
The surrounding environment of the hotel is good and disturbance free	0.572	0.016	0.124
Food & beverages are of good quality	0.581	.009	0.114
Satisfaction			
Food & beverages are of good quality	.400	.400	.414
The surrounding environment of the hotel is good and disturbance free	479	.079	.220
The staff responds to my requests in a timely manner	.512	.033	.167
The interiors and exteriors of the hotel are attractive and appealing	.526	0.15	.128
All the amenities and facilities of the hotel are prompt, reliable, reasonable and good	.540	0.14	.130

Conclusion and Managerial Implications

The state of J&K is one of the popular tourist destinations in India and JKTDC is the largest public sector undertaking providing accommodation, food & travel services through hotels and cafeterias across the state. Annual income, occupation, domicile of tourists, regional grouping and location of JKTDC hotel significantly impact tourist's perception about servicescape of JKTDC.

The findings revealed the existence of four clusters of the tourists that are differentiated on the basis of their satisfaction towards the attributes of the servicescape of the JKTDC hotel establishments. In particular, annual household income, number of previous stay, employment level and domicile state of the tourist remain useful segmentation variables as suggested by other studies (Park and Yoon, 2009; Gitelson & Kerstetter, 1990). This is of particular interest as tourists staying at the JKTDC hotel establishments depicts a heterogeneity and it has impelled the marketers to provide differential marketing and promotional activities for the varies JKTDC establishments on the basis of these segmentation variables.

It is seen that cluster III comprises of tourists with the highest satisfaction with the servicescape attributes and JKTDC may symbolically represent choicest place to stay. This cluster comprises of majority of tourists with income more than 10 lakhs (51.2%) and majority of them staying for 2-3 days. They are highly satisfied with the interiors/exteriors, homely environment and amenities, hotel staff are trained & conduct as well as brand of the JKTDC. For JKTDC this cluster would be the most profitable as they have very high likely hood of recommending the hotel to its family and friends creating a positive WOM for the brand. A hotel manager should take care, if a tourist with similar credential checks in the hotel, care must be taken to allot him good room, trained hotel staff and continuous feedback must be taken from him.

Cluster I is the next highly satisfied cluster. It comprised solely of the tourists with income between Rs.5-10 lakhs and more than Rs.10 lakhs per annum, with more than 4 stays in the previous year and prefer to stay 2-3 days at the hotel. Such tourists are frequent visitors, bring consistent source of income for the hotel and high probability of giving recommendations to other potential tourists. For these tourists, variety in food/beverages, reliability & promptness of the amenities, hotel staff and brand are important. Since they are familiar with the hotel, they have little concern for the interiors / exteriors, homeliness environment and security of the hotel. Hotel can register these tourists as their gold tourists, create some discount offerings for them and try cross selling other hotel establishments to enrich their service experiences. Low satisfaction and recommendation likelihood is observed in cluster II and Cluster III of the tourists. Cluster II comprises of tourists who are visiting for the first time and mostly people from north India. Their main purpose of stay is for a day which is usually for a transit purposes and are moderately satisfied with the servicescape attributes of the JKTDC hotels. Since they tend to stay inside the hotel, they expect good interiors/exteriors, trained staff and safety of the hotel. Whereas for the cluster IV, the main cause of dissatisfaction is non- reliability & delayed amenities, surrounding environment of hotel and food quality. For the cluster II,the hotel manager should ensure hotel security provisions, inform them of the nearest places to visit for a day tour and help in arranging their transit to their next destination. Managers should focus on building disturbance free surrounding and good quality food & beverages for the cluster IV tourists.

When it comes to recommendation with the attributes of servicescape, a very high scoring was given to the availability of the trained staff followed by environment of the hotel and responsiveness of the staff. In comparison to recommendation likelihood, tourist gave a high scoring to food followed by surroundings of the hotel and staff responsiveness. The study concluded that the hotel managers need to proactively invest on staff hiring, their training and development. Addition of local cuisine, cultural nights enriched with folk music/ dance, travel to local temples / nature sites, in-house souvenir shops selling local handicrafts, cooking classes etc. will help in building a competitive advantage. Being a government organization it is easy for JKTDC to have strategic tie-ups with other Government organizations facilitating tourism such as Patnitop

Development Authority, Surinsar-Mansar Development Authority, Jammu & Kashmir Academy of Art, Culture and Languages, Jammu and Kashmir State Road Transport Corporation, Jammu Tawi Golf Course, Food Craft Institute, Jammu etc. to develop a holistic experience for the tourist at their hotel.

The study is limited to demographic profiling of tourists and in future could be extended to other variable like travel motivation, quality of auxiliary tourist services, comparative service quality with neighboring tourism corporations and private hospitality sector .

REFERENCES

Adeleke, B. O. and Ogunsusi, K.(2019). Evaluation of factors enhancing effectiveness of destination management of nature based tourism, Lagos, Nigeria, *International Tourism and Hospitality Journal*, 2(2),1-20.

Ananth, M., DeMicco, F. J., Moreo, P. J., & Howey, R. M. (1992). Marketplace lodging needs of mature travelers, *The Cornell Hotel and Restaurant Administration Quarterly*, 33(4), 12-24.

Arnould, E.J., Price, L. and Tierney, P. (1998). Communicative staging of the wilderness servicescape, *The Service Industries Journal*, Vol. 18 (3), 90-115.

Baniya, R., & Thapa, P. (2017). Hotel attributes influencing international tourists' satisfaction and loyalty, *Journal of Tourism and Hospitality Education*, 7, 44-61.

Barsky, J.D., Labagh, R.(1992). A strategy for customer satisfaction. *The Cornell Hotel and Restaurant Administration Quarterly* ,32-40.

Berry, L.L. and Parasuraman, A. (1991). Marketing services: Competing through quality. The Free Press, New York.

Bertan, S., & Altintaº, V. (2013). Visitors' perception of a tourism destination: The case of Pamukkale Tourismos, *An International Multidisciplinary Journal of Tourism* ,Vol.8(1), 115-132.

Bitner, Mary Jo. (1992). Servicescapes: The impact of physical surroundings on customers and employees, *Journal of Marketing*,Vol. 56 (2),57-71.

Brakus, J. J., Schmitt, B. H., & Zarantonello, L. (2009). Brand experience: What is it? How is it measured? Does it affect loyalty?, *Journal of Marketing*, 73(3), 52–68. https://doi.org/10.1509/jmkg.73.3.052.

Breitsohl, J. & Garrod, B. (2016). Assessing tourists' cognitive, emotional and behavioural reactions to an unethical destination incident, *Journal Tourism Management*, Vol. 54, 209-220.

Cadotte, E.R., and Turgeon, N. (1988). Dissatisfiers and satisfiers: Suggestions for consumer complaints and compliments, *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, Vol. 1, 74-79.

Cansev Özdemir and Medet Yolal(2016). Cross-cultural tourist behavior: An examination of tourists' behavior in guided tours, *Tourism and Hospitality Research*, Vol.17(3), 314-324.

Dang, X., Thi, T. G., Dong, G., Wang, H., Edzesi, W. M., and Hong, D. (2014). Genetic diversity and association mapping of seed vigor in rice (Oryza sativa L.). Planta 239, 1309–1319. doi: 10.1007/s00425-014-2060-z.

Dolnicar, S. & Otter, T. (2003). Which hotel attributes matter? A review of previous and a framework for future research, in Griffin, T & Harris, R (eds.) Proceedings of the 9th Annual Conference of the Asia Pacific Tourism Association (APTA), University of Technology Sydney, 1, 176-188.

Dolnicar, S. (2005). Understanding barriers to leisure travel: Tourist fears as a marketing basis, *Journal of Vacation Marketing*, 11197-208.

Dong, P. and Siu, N.Y.M. (2013). Servicescape elements, customer predispositions and service experience: The case of theme park visitors, *Tourism Management*, Vol. 36, 541-551.

Durna, U., Dedeoglu, B. and Balikçioglu, S. (2015). The role of servicescape and image perceptions of customers on behavioral intentions in the hotel industry, *International Journal of Contemporary Hospitality Management*, Vol. 27(7),1728-1748. https://doi.org/10.1108/IJCHM-04-2014-0173

Eagly, A., and S. Chaiken (1993). The Psychology of Attitudes. Fort Worth: Harcourt.

G. Prayag (2012).Paradise for who? Segmenting visitors' satisfaction with cognitive image and predicting behavioural loyalty, *Int. J. Tourism Res.*, 14 (1) , https://doi.org/10.1002/jtr.837.

Guzel, B., & Apaydin, M. (2016). Gastronomy tourism: Motivations and destinations. In C. Avcýkurt, M. S. Dinu, N. Hacýoðlu, R. Efe, A. Soykan, & N. Tetik (Eds.), Global issues and trends in tourism (pp. 394-404). Sofia, Bulgaria: St. Kliment Ohridski University Press.

Hartline, M.D. and Jones, K.C. (1996). Employee performance cues in a hotel service environment: Influence on perceived service quality, value, and word-of-mouth intentions, *Journal of Business Research*, Vol. 35(3), 207-215.

Hudson, S., Thal, K., Cárdenas, D. and Meng, F. (2017). Wellness tourism: Stress alleviation or indulging healthful habits?, *International Journal of Culture, Tourism and Hospitality Research*, Vol. 11(1) 35-52. https://doi.org/10.1108/IJCTHR-09-2015-0111.

Ingrid Y. Lin & Anna S. Mattila (2010). Restaurant servicescape, service encounter, and perceived congruency on customers' emotions and satisfaction, *Journal of Hospitality Marketing& Management*, 19:8, 819-841, DOI: 10.1080/19368623.2010.514547.

Israeli, A. (2002). A preliminary investigation of the importance of site accessibility factors for disabled tourists, *Journal of Travel Research*, 41 (1) ,101-104.

Jenkins, O.H. (1999). Understanding and measuring tourist destination images, *International Journal of Tourism Research*, Vol. 1(1), 1-15.

Jensen, S., & Svendsen, G. T. (2016). Social trust, safety and the choice of tourist destination, *Business and Management Horizons*, 4, 1-9.

Johnston, R. (1995).The determinants of service quality: satisfiers and dissatisfiers, *International Journal of Service Industry Management*, Vol. 6(5),53-71. https://doi.org/10.1108/09564239510101536.

Karen L. Xie, Kevin Kam Fung So (2017). The effects of reviewer expertise on future reputation, popularity, and financial performance of hotels: Insights from data-analytics, *Journal of Hospitality and Tourism Research*, https://doi.org/10.1177/1096348017744016.

Kashyap, R., & Bojanic, D.C. (2000). A structural analysis of value, quality, and price perceptions of business and leisure travelers, *Journal of Travel Research*,39 (1), 45-5.

Kastenholz, E., Carneiro, M. J., & Eusébio, C. (2005). *The impact of socio-demographics on tourist behavior – analyzing segments of cultural tourists visiting Coimbra*. Unpublished manuscript.

Klemm, M. S. (2002). Tourism and ethnic minorities in Bradford: The invisible segment. *Journal of Travel Research*, 41(1), 85–91.

Knutson B (1998). Selective alteration of personality and social behavior by serotonergic intervention, *Am J Psychiatry*. 155(3),373-9

Lee, J., & Lee, Y. (2015). The interactions of CSR, self-congruity and purchase intention among Chinese consumers, *Australasian Marketing Journal,* 23(1), 19-26. http://dx.doi.org/10.1016/j.ausmj.2015.01.003

Lim CC, Cooper C. (2009). Beyond sustainability: Optimising island tourism development, *International Journal of Tourism Research* ,11(1), 89–103

Lin, I.Y., (2004). Evaluating a servicescape: the effect of cognition and emotion, *Int. J. Hosp. Manage*ment, 23 (2), 163–178.

Lockwood A., Pyun K. (2019). How do customers respond to the hotel servicescape?. *International Journal of Hospitality Management*, 82, 231-241.

Lockyer, T. (2002). Business guests' accommodation selection: The view from both sides, *International Journal of Contemporary Hospitality Management*, Vol. 14(6), 294-300. https://doi.org/10.1108/09596110210436832

Lovelock, Christopher H.(1996). Adding value to core products with supplementary services, Service Services Marketing, 2nd ed., 337–359. NJ: Prentice Hall

McKercher, B. (2001). A comparison of main-destination visitors and through travelers at a duel-purpose destination, *Journal of Travel Research*, 39 (4), 433-41.

Medabesh, A. and Upadhyaya, M. (2012). Servicescape and customer substantiation of star hotels in India's Metropolitan City of Delhi, *Journal of Marketing & Communication*, Vol. 8(2), 39-47.

Mirela Mazilu & Sabina Mitroi (2010). Demographic, social, economic and geographic features – shaping factors of the tourist market, *Romanian Economic Business Review*, Romanian-American University,Vol. 5(1),159-166.

Mpotaringa,M & Hattingh,J.(2019). Demographics and consumer behaviour of visitors to the Wegry/Drive out bull run motorsport event, *African Journal of Hospitality, Tourism and Leisure*, 8 (3).112-118.

Namasivayam, K. and Lin, I. Y. (2004). Accounting for temporality in servicescape effects on consumers' service evaluations, *Journal of Foodservice Business Research*,Vol. 7, 5–22.

Parasuraman, A., Zeithaml, V., & Berry, L. (1985). A conceptual model of service quality and its implications for future research, *Journal of Marketing*, Vol.49, 41–50.

Park, D-B. and Yoon Y-S. (2009). Segmentation by motivation in rural tourism: A Korean case study, *Tourism Management*, Vol. 30(1), 99-108.

Pearce, P., and P. Stringer (1991). Psychology and tourism, *Annals of Tourism Research*, Vol.18,136-154.

Prayag, G. (2010). Brand image assessment: International visitors' perceptions of Cape Town, *Marketing Intelligence & Planning*, Vol. 28(4),462-485. https://doi.org/10.1108/02634501011053577.

R.J. Gitelson, D.L. Kerstetter (1990). The relationship between socio-demographic variables, benefit sought and subsequent vacation behavior: A case study, .*Journal of Travel Research*, 28 (4), 24-29.

Seung Hee Lee & Hyunsoo Lee (2015). The design of Servicescape based on benefit sought in hotel facilities: A survey study of hotel consumers in Seoul, *Journal of Asian Architecture and Building Engineering*, Vol.14(3), 633-640, DOI: 10.3130/jaabe.14.633.

Sohrabi, B., Vanani, I.R, Tahrnasebipur and Fazli, S. (2012). An exploratory analysis of hotel selection factors: A comprehensive survey of Tehran hotels, *International Journal of Hospitality Management*, 31(I), 96-106.

Wei-Ching Wang, Chung-Hsien Lin, Wen-Bor Lu & Su-Hsin Lee (2019). When destination attractiveness shifts in response to climate change: Tourists' adaptation intention in Taiwan's Kenting National Park, *Current Issues in Tourism*,Vol. 22(5), 522-543, DOI: 10.1080/13683500.2018.1437715

Yavas, U., & Babakus, E. (2005). Dimensions of hotel choice criteria: Congruence between business and leisure travelers. *International Journal of Hospitality Management*, 24(3), 359-367.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Impulsive Buying: A Consumer Trait Perspective in Context of North Karnataka

Ashwini M. Jamuni, Siddappa O. Halasagi and Sunilkumar M. Hosamani

Abstract: Impulsive buying happens when a customer sees an indiscreet and convincing boost to purchase something instantly. The main objective of the current study is to find the relationship between the personality traits and the impulsive buying behavior of North Karnataka. The study reveals that the personality traits have significant positive effects of impulsive buying.

Keywords: Impulsive buying; Personality: Positive Indicators; Negative Indicators; Buying Tendency.

Introduction

The research in consumer buying behavior plays vital role in the field of marketing. It has rich background of more than 60 years. Impulse buying behavior or consumer's sudden urge to buy a product has more importance due to many factors (personality traits of consumers and the promotional offers, store environment, buy on get two type offer, etc.,) involved in this research. Research on this topic has been attracted many researchers from past few decades.

Stern, 1962 explained that "the term impulse buy is generally considered to be synonymous with "unplanned purchase" describing any purchase made by a shopper but not planned in advance. Stern was the first scholar to develop four different types of purchases of impulses. You can identify these four types of impulse purchase (Stern, 1962)".

- "Simple impulse purchasing: this is the purchase of novelty or escape that violates the shopper's usual buying behaviour".
- "Reminder purchasing impulse: This kind of purchasing impulse occurs in the store when the shopper notices the product needs".
- "Suggestion purchasing impulse: Shopper shows suggestion purchasing impulse without any knowledge or experience of the product by purchasing a new product with a need for it".

Ashwini M. Jamuni and Siddappa O. Halasagi are in Department of Commerce, Rani Channamma University, Belagavi, Karnataka; and Sunil Kumar M. Mosamani is in Department of Mathematics, Rani Channammma University, Belagavi, Karnataka

- "Planned purchasing impetus: This type of behaviour occurs when shoppers enter the store with the intention of purchasing certain products as well as the expectation of making other purchases. This is because the type of sales promotions, new products / brands on offer in the store may not be known to a shopper beforehand".

"Both horizontal and vertical surges were witnessed by the impulsive buying literature. Needless to say, there has been a multitude of studies around the globe trying to assess the impact of situational on the one hand. On the other hand, new theoretical models and frameworks have been developed on a continuous basis. Nevertheless, there are still huge gaps in developing understanding related to the psychological aspects of the phenomenon, and one such gap in literature is ignoring the concurrent effect on impulsive purchasing behaviour of personality traits (Applebaum, 1951; Beatty and Ferrell, 1998; Dittmar, Beattie, and Friese, 1995; Hoch and Loewenstein, 1991; Holbrook and Hirschman, 1990). For more information on impulsive bying we refer the reader to (Badgaiyan and Verma, 2014; Belk, 1975; Dittmar and Bond, 2010; Karbasivar andYarahmadi, 2011; Kollat and Willett, 1967; Kasser, Cohn, Kanner and Ryan, 2007; Lifu, 2012; Larsen and Buss, 2010; Mehta and Chugan, 2013; Rook and Fisher, 1995; Schiffman, 2008; Sharma, Sivakumaran and Marshall, 2010; Siorowska, 2011)."

We consider the following characteristics of personality traits for impulsive buying:

a. Emotional stability (ES)
b. Sociableness (S)
c. Mindfulness(MF)
d. Materialism(MT)
e. Shopping enjoyment tendency(SET)
f. Positive Indicators ("Affirmative buying sensations, Undesirable advocacy to buy, Cognitive dissonance")
g. Negative Indicators ("Trust, Scant Planning, No to potential consequences, Cognitive deliberation").

Theoretical Frame Work and Hypotheses

Personality and Impulsive Buying Behaviour

According to "(Schiffman, 2008) personality is a specific and dynamic organisation of a particular person's characteristics — physical and psychological — that affect behaviour and responses to the social and physical environment. In other words, it is a collection of organic and relatively lasting psychological traits and mechanisms within the person (Dittmar, Beattie and Friese, 1995; Dittmar and Bond, 2010; Hoch and Loewenstein, 1991). It allows us to categorise consumers into different groups on the basis of one or more traits because personality reflects individual differences (Holbrook and Hirschman,1990). Furthermore, the fact that personality is consistent and enduring (Kollat and Willett, 1967) means that while marketers can not change consumer personalities to conform to their products, if they know which personality characteristics influence specific consumer responses, they may try to appeal to the relevant characteristics inherent in their target customer group". Based on this background, we have framed the following hypotheses.

H_a: The emotional stability personality trait has a negative impact on the buying actions of impulses.

H_b: The personality trait sociableness has positive effect on impulse buying behavior.

H_c: The mindfulness personality trait has a positive effect on the purchasing behaviour of impulses.

H_d: Materialism has a positive impact on the purchasing behaviour of impulses.

H_e: The tendency to enjoy shopping has a positive effect on the purchasing behaviour of impulses.

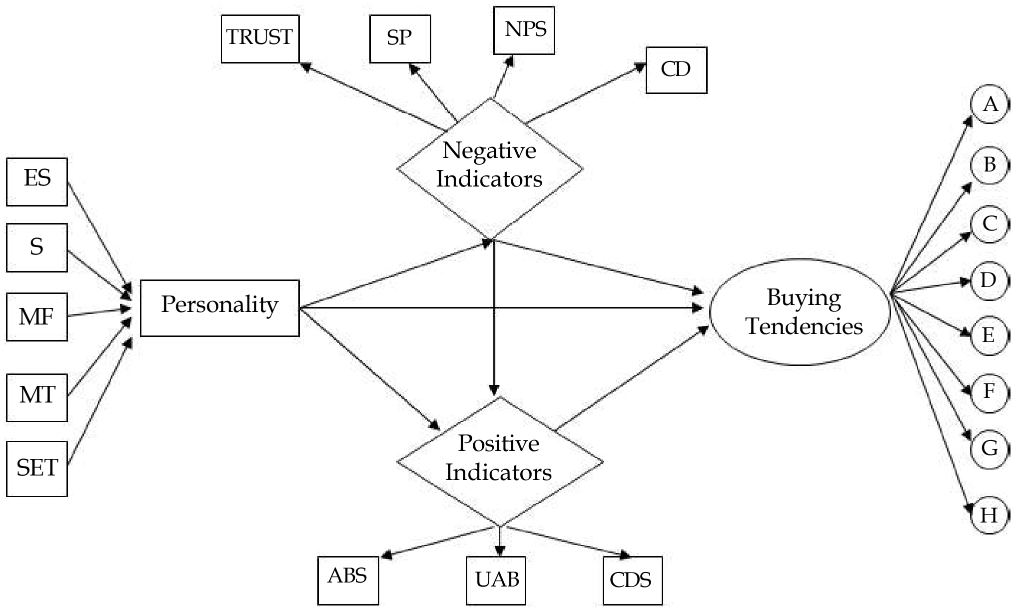

Fig. 1: Conceptual framework (Shakeel and Fayaz , 2017).

H_f: Personality is significantly associated with negative purchasing behaviour indicators.

H_g: Personality is significantly associated with positive purchasing behaviour indicators.

H_h: Impulsive purchasing phenomenon impacts impulsive buying behaviour.

Methodology

The data collection was done by the author(s) from various malls, retails stores etc. The sample was chosen from consumers from organized retail stores in North Karnataka districts: Belagavi, Vijayapura, Bagalakote, Dharwar, and Haveri.

Data Screening

The value of Skewness and kurtosis skewness $z \in [-2.12 \quad 2.35]$ indicates the normality in the data.

Table 1. Respondent's districts

Sl. No.	City	Number of consumers from malls and street stores	Number of respondents
1.	Belagavi	05	200
2.	Vijayapura	04	150
3.	Bagalakote	03	100
4.	Dharwad-Hubballi	05	200
5.	Haveri	02	50
	Total:	19	700

Instruments for the Study

Apart from details on three important elements of the study, which is impulsive buying behaviour, personality assessment, and buying trends for specific products, the questionnaire also included the respondent's demographic variables to gather background information about respondents. In addition to demographics consisting of nominal scales, for the rest of the items, a 5-point scale was adopted".

Table 2: Sample frame of respondents

		Frequency	Cumulative percentage
Gender	Male	299	44
	Female	381	100

Contd...

Contd...

Age	18-25	406	59.7
	26-32	188	87.5
	33-40	86	100
Marital status	Single	436	64.1
	Married	244	100
Qualification	Under graduates	300	44.11
	Post Graduates	180	70.587
	Others	200	100
Income	Up to Rs. 2,00,000	346	50.9
	Rs.2,00,001 – Rs.4,00,000	276	91.5
	Rs. 4,00,001 to Rs. 6, 00,000	58	100
	Rs. 6,00,001 and above		
Nativity	Rural	183	26.9
	Urban	497	100

Measurement Model

The analysis was conducted using AMOS 20.0. For this CFA, the underlying structure of constructs was verified with maximum likelihood.

Table 3: Detail of instruments.

Personality

Constructs	Loadings	EV	% of Variance	CR	AVE	SQR(AVE)
ES	0.848	4.782	5.372	0.81	0.52	0.71
	0.860					
	0.889					
S	0.892	0.399	4.447	0.87	0.55	0.72
	0.901					
	0.877					
MF	0.882	4.239	4.852	0.89	0.57	0.77
	0.863					
	0.904					

Contd...

Contd...

MT	0.893	2.167	2.989	0.87	0.60	0.79
	0.889					
	0.856					
SET	0.883	3.216	3.585	0.86	0.59	0.78
	0.847					
	0.860					
Impulsive Buying (Positive and Negative Indicators)						
UAB	0.726	4.236	5.017	0.88	0.50	0.70
	0.777					
	0.719					
	0.781					
ABS	0.934	3.180	3.968	0.86	0.56	0.74
	0.753					
	0.904					
	0.780					
CDS	0.824	2.315	2.657	.85	0.54	0.72
	0.718					
	0.619					
BELF	0.842	3.015	3.339	0.87	0.53	0.72
	0.892					
	0.834					
	0.787					
CD	0.610	3.012	3.248	0.88	0.56	0.74
	0.756					
	0.812					
NPS	0.882	2.476	2.785	0.87	0.54	0.73
	0.831					
	0.616					

Contd...

Contd...

Buying Tendencies						
Buying	0.899	6.513	7.246	0.89	0.52	0.74
Tendency	0.687					
	0.864					
	0.881					
	0.824					
	0.870					
	0.869					
	0.861					

"In this analysis, the theoretical framework-based structural model was tested. Four important variables, including personality itself, influenced the current study's structural model by two significant impulsive buying parameters, namely negative indicators and positive indicators and purchasing patterns for specific products. Personality is an exogenous variable whereas intelligence, attraction, and purchasing habits are described as an endogenous variable. Personality is treated as an independent variable in this structural model, while positive and negative indicators are treated as dependent variables to examine the impact of personality on positive impulsive indicators and negative impulsive indicators.

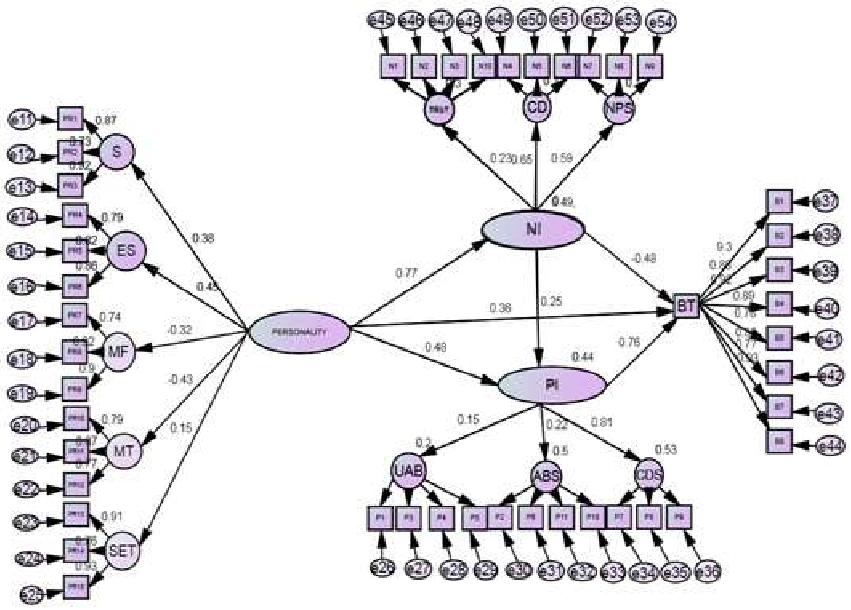

Fig. 2: The structural model.

The proposed structural model was found to fit the data quite satisfactorily, as the fit values were well within acceptable range (chi-square = 12453.653, $p < 0.000$, RMR = 0.1398, GFI = 0.798, CFI = 0.802 and RMSE = 0.051, NFI = 0.801).

However, the structural model results clearly indicate that personality significantly influences positive and negative indicators as path estimates for positive indicators (0.59, $p < 0.05$) and the path estimates for negative indicators (0.72, $p < 0.05$) are significantly influenced by personality and therefore impulsive buying.

Personality thus directly influences buying patterns for a given brand and also has an indirect effect through negative and positive indicators mainly determined by personality"

Structural Model And Hypotheses Testing

For hypotheses testing, path coefficients associated with structural model and substructural model were employed. The results of the structural equation modeling revealed that negative indicators and personality are significantly related to each other and it is evident from the coefficients of the structural model (Table 4) that the meaning value associated with the data is significant as $p<0.05$. In addition, structural coefficients have shown that positive measures and personality are also strongly related to each other and it is clear from the coefficients of the structural model (Table 4) that the significance quality associated with the results is important as $p<0.05$."

"Making further roads in this direction and after examining the structural coefficients associated with the scale of personality impulsiveness and buying tendencies, it is evident that negative indicators and buying tendencies are closely related to each other. In addition, the p value in the relationship associated with the data is less than 0.05, which shows the results significance."

Table 4: Structural model coefficients

		Estimate	S.E	C.R	P
Personality					
E		-0.49	0.21	-2.10	***
ES		0.66	0.26	2.22	***
AS	Personality	0.73	0.27	2.74	****
C		-0.81	0.26	-3.33	***
PSP		-0.93	0.27	-3.98	***

Contd...

Contd...

Positive indicators					
UAB		0.149			
ABS	PI	0.99	0.17	3.45	
CDS		0.298	0.06	2.29	0.26
Negative indicators					
BELF		0.999			
CD	NI	0.66	0.17	3.27	
NPS		0.18	0.05	2.26	0.22
Buying tendency					
NI		-0.77	0.34	-2.33	0.40
PI	BT	0.85	0.30	3.07	0.09
Personality		0.50	0.18	2.77	0.18

Table 6: Summary of hypotheses

Hypotheses		Estimate	S.E	C.R (t-value)	P	Result
H_a:	The "emotional stability" personality trait has a significant negative impact on the buying actions of impulses	0.039	0.042	0.78	0.257	Not supported
H_b:	The personality trait 'Sociableness' has significant positive effect on impulse buying behavior.	0.267	0.089	2.789	0.003	Supported
H_c:	The ' mindfulness 'personality trait has a significant positive effect on the purchasing behaviour of impulses.	-0.125	0.049	-2.364	0.01	Supported
H_d:	Materialism has a positive impact on the purchasing behaviour of impulses	0.211	0.039	4.36	****	Supported
H_e:	The tendency to enjoy shopping has a significant positive effect on the purchasing behaviour of impulses.	0.106	0.023	4.189	***	Supported

Contd...

Contd...

H_f:	Personality is significantly associated with negative purchasing behaviour indicators	-0.45	0.17	-2.34	-.011	Supported
H_g:	Personality is significantly associated with positive purchasing behaviour indicators.	0.81	0.24	3.07	0.12	Supported
H_h:	Impulsive purchasing phenomenon impacts impulsive buying behaviour significantly.	0.677	0.087	7.328	***	Supported

Our study has revealed the following facts about personality traits on impulsive buying:

- The emotional stability personality trait has a significant positive impact on the buying actions of impulses.
- The personality trait 'Sociableness' has significant positive effect on impulse buying behavior.
- The mindfulness personality trait has a significant positive effect on the purchasing behaviour of impulses.
- Materialism has a positive impact on the purchasing behaviour of impulses.
- The tendency to enjoy shopping has a significant positive effect on the purchasing behaviour of impulses.
- Personality is significantly associated with negative purchasing behaviour indicators.
- Personality is significantly associated with positive purchasing behaviour indicators.
- Impulsive purchasing phenomenon impacts impulsive buying behaviour significantly.

Conclusion

The current model of personality traits was found to be significant in a sense that all personality predictors influence a consumer's positive and negative indicators that, in turn, influence a consumer's buying tendencies. In fact, there is also a direct relationship between personality and desire to purchase. This has added sufficient evidence to marketers that apart from other factors such as income, culture, there are psychological factors that significantly determine consumer buying trends at large.

REFERENCES

Applebaum, W. (1951). Studying consumer behaviour in retail stores. *Journal of Marketing*, 16 (2), October,172–178.

Badgaiyan, A.J., & Verma, A. (2014). Intrinsic factors affecting impulsive buying behaviour—Evidence from India. *Journal of Retailing and Consumer Services*, 21(4), 537–549.

Beatty, S.E., Ferrell, M.E., 1998. Impulsive buying: modeling its precursors,. *J. Retailing* 74(2), 169–191.

Belk, R.W.,1975. Situational variables and consumer behavior. *J.Consum.Res*. 2 (3),157–164.

Bratko, D., Butkovic, A., & Bosnjak, M. (2013). Twin study of impulsive buying and its overlap with personality. *Journal of Individual Differences, 34*(1), 8–14.

Dittmar, H., Beattie, J., & Friese, S. (1995). Gender identity and material symbols: Objects and decision considerations in impulse purchases. *Journal of Economic Psychology*, 16(3), 491–511.

Dittmar,H.,Bond,R.,2010. I want it and I want it now: using a temporal discounting paradigm to examine predictors of consumer impulsivity. *Br.J.Psychol*.101, 751–776.

Hoch, S.J & Loewenstein G.F. (1991). Time-inconsistent Preferences and Consumer Self-Control. *Journal of Consumer Research*, 17(4), March, 492–507.

Holbrook, M., & Hirschman, E.C. (1990). The Experiential Aspects of Consumer Behaviour: Consumer Fantasies, Feelings and Fun. *Journal of Consumer Research*, 57(4), 132–140.

Karbasivar,A., Yarahmadi,H., 2011. Evaluating effective factors on consumer impulse buying behavior. *Asian J. Bus. Manage. Stud*. 2(4),174–181.

Kollat, D.T., & Willett, R.P. (1967). Customer impulse purchasing behavior. *Journal of Marketing Research*, 4(1),21–31.

Kasser,T.,Cohn,S.,Kanner,A.,Ryan,R.,2007. Some costs of American corporate capitalism: a psychological exploration of value and goal conflicts. *Psychol. Inquiry* 18,1–22.

Lifu, F.L.,2012. Ananalys is of the effect of product packaging on consumers' buying choice in Calabar Municipality,Cross River State, Nigeria. *Asian J. Bus. Manage.* 4 (2),186–191.

Larsen, R.J., & Buss, D.M. (2010). Personality Psychology: Domains of Knowledge About Human Nature. London, England: McGraw Hill Higher Education. (ISBN 978- 007-0164-99-4).

Mehta, N., Chugan,P., 2013. The impact of visual merchandising on impulse buying behaviour of consumer: a case from Central Mall of Ahmedabad India. *Univers.J.Manage*.1(2),76–82.

Rook, D.W., & Fisher, R.J. (1995). Normative influences on impulsive buying behavior. *Journal of Consumer Research*, *22*(3), 305–313.

Schiffman, L.G., 2008. *Consumer Behavior/ L. G. Schiffman, L. L. Kanuk.* Prentice Hall, pp. 114–141.

Sharma, P., Sivakumaran, B., & Marshall, R. (2010). Impulse buying and variety seeking: A trait-correlates perspective. *Journal of Business Research*, 63(3), 276–283.

Siorowska, A.G. (2011). Gender as a moderator of temperamental causes of impulse buying tendency. *Journal of Consumer Research*, 10(2), 119–142. *African Journal of Business Management*, 6(6), 2187–2194.

Shakeel A. S and Fayaz A N (2017), The role of Personality in impulse Buying Behaviour, *Jindal Journal of Business Research*,5(1)26-50.

Schiffman, L.G.,2008. Consumer Behavior/L.G.Schiffman, L.L.Kanuk. PrenticeHall, pp. 114–141

Stern, H,1962. The significance of impulse buying today. *J. Marketing* 26(2), 59–62.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Rent Valuation of Residential House Property in Lucknow: A Study on Scale Development

Pawan Kumar Sharma and Abhinav Parashar

Abstract: In present scenario, renting of residential house property across the cities in India is becoming a lucrative source of income due to increasing migration to urban centres. The owners want to earn the profits from their properties instead of keeping them vacant. Each residential house property is unique, and it is very complex exercise to ascertain its rental value as it is influenced by variety of factors. The objective of this study is to benchmark the factors that influence the rental value of residential house property in Lucknow. The study is exploratory, descriptive and cross-sectional in nature. Exploratory factor analysis and second order confirmatory factor analysis of the 15-point scale suggests that rent valuation can be benchmarked along three major dimensions, i.e. physical attributes, location and amenities of residential house property. This study may provide the sound base to the owners of house property towards formulating the strategies to earn higher rental income.

Keywords: Physical attributes, location, amenities, rent valuation, house property.

Introduction

Housing is an important basic need of human beings as specified in Maslow's hierarchy of needs, a motivational theory in psychology. Further it is also significant to the societal development and have both economic and welfare effects *(*Babalola, et.al*, 2013)*. In the urban conglomerations, the land is utilized mostly for construction of houses and settlement of colonies, and in the present times earning through housing rent has become more important than sales and purchases of houses in the real estate market. The main aim of acquiring real estate properties in general and houses in particular, is to make profits through earning of rents *(*Wickramaarachchi*, 2016)*. In this new era, housing is the most important component of socio-economic sector *(*Babalola, et al.*, 2013)*. In present scenario, it is most inexpensive way to provide rental housing in cities *(Sanga,*

Dr. Pawan Kumar Sharma is Principal, Dyal Singh Evening College, University of Delhi and Abhinav Parashar is Assistant Professor, Department of Economics, Sri Aurobindo College (E), University of Delhi.

2017) due to urbanization. Several studies have revealed that the increasing rate of urbanization in the developing countries is also reinforced by the activities of the multinationals that inclined to focus their investments in urban areas (Olayinka, 2012). Moreover, due to improvement in overall economic scenario, people started buying their second home for the purpose of investment and renting in India.

The rapid pace of urbanization in India had brought tremendous changes in the use of residential property. Housing comprises the physical structures provided for living and other ancillary services *(*Babalola, et al., 2013*)*. If any residential house property is well connected with marketplace, offices, school, railway, bus stand, airport, hospitals is likely to earn high rent yield. Moreover, Indian tenants as a common practice expect availing the efficient and effective provision of facilities based on cost-benefit principle. In landowners' perspective, their aim is to make a profit and ascertain optimum revenue in the form of rents which could be realized by ensuring that houses are always gainfully occupied and never kept idle *(*Wickramaarachchi*, 2016)*. It is essential for the landlord to decide their target tenant such as corporate, family or individual. Further, socio-demographic features of residential house property determine renting related decision. Moreover, physical attributes of a residential house property are associated directly with rent.

In India with reference to Lucknow, any research work does not exist for recognizing the determining factors of rental value for residential house property. In Lucknow most landlords determine the rental amount arbitrarily or charge the rent which is prevailing in their surroundings due to the absence of specific guidelines. Moreover, lack of knowledge regarding the determinants of rental value of residential house property becomes the major constraint to earn optimum income from it. Against this background, a study for identifying the determinants and development of a scale for valuation of rent of residential house property is worth undertaking to enable landlords for proper planning and earning high rental income.

Literatutre Review

Han and Kim (2014) have studied and analyzed the determinants of rental price of retail properties in seven metropolitan cities in Korea by having relatively widespread research range as compared to prior studies in the country. They also analyzed the variance in the determinants of rental prices through estimating hedonic price model. Wickramaarachchi (2016) has emphasized in his paper on evolving a benchmark to ascertain the value of rent in the real estate market by segregating the housing properties into different units which can be rented as per their utility. The 'proximity to main junction' among various properties emerged as the most prominent decisive factor after carrying out the significance of respective factors with the help of multiple regression model and coefficient values.

Sanga *(2017)* has examined the effects of traditional Swahili houses on marginal rental values of occupied rooms, considering the neighbourhood and individual characteristics of both tenants and owners in Kinondoni municipality in Dar-es-Salaam, Tanzania by applying a Linear Mixed Effect model to recognize significant determinants of marginal rent per bedroom across submarkets. He concluded that self-built traditional Swahili houses may not necessarily provide affordable rental housing despite having all the attributes of being low cost housing. The study qualified the observed changes in property mainly from residential to commercial uses. Tomisi, et al, (2016) identified the significant contributory factors such as accessibility, security, infrastructural facilities, investment potentials, agglomeration of business activities and planning regulations while, ease of property management and population size of dwellers were ascertained as the lesser determinants.

Anthony et al, (2012) analysed the impact of housing characteristics on residential property values by using the hedonic pricing model in Kumasi, Ghana. Results of this paper provide useful insights regarding the determinants of residential property values including the location of the property, availability of garage, fence wall and swimming pool, the number of rooms, floors, and property age, and land registration; all these influence the residential property values. Further, employing the Chow Test, findings reflect the implicit prices of the housing characteristics are constant over time. Babalola et al. (2013) have investigated the factors influencing house rental rates. It was conducted using Hedonic pricing model that captures multi-dimensional features of the houses. The key determinants of house rent included age, life span of house, and number of houses built in the university environment. Further, this study highlighted that people do not obtain mortgage loans to build their houses, and recommended that policies and strategies like provision of finance, direct construction of houses, rent control, regulatory measures etc are adopted.

Xu & Tang (2014) examined the determinants of house prices employing a co-integration approach and its error correction model. The co-integration test concludes that GDP, construction cost, interest rate credit and unemployment rate have a positive impact on house prices. Further, disposable income and money supply are negatively correlated with house prices. Moreover, the error correction model shows that the growth of house prices is affected by the growth of credit, construction cost, interest rate and disposable income in the short run and result reveals that the interest rate is the most significant determinant. Seo (2018) carried out the study and analyzed real estate market of Vietnamese capital city with special reference to affordability using the hedonic regression model to explore the price determinants of affordable and unaffordable apartment units. This study recognized common factors as well as unique factors for two types of apartments.

All these studies were undertaken outside India. Therefore, it is imminent to explore the factors or determinants of renting residential house property in India. Moreover, development of scale for rent valuation is equally necessary. Rent valuation is generally benchmarked as per the perception of owner about the rent of residential house property. The present study is based on the data collected from Lucknow in India.

Table 1: Main factors determining property values

Authors and Year	Country	of Study Determinant
Joslin, (2005)	UK	Age, Location, Size
Kauko, (2003)	Hungary	Location, Shopping Centres, High ways, Parks, Metro Neighbourhood Characteristics
Paz, (2003)	New Zealand	GDP, Level of Income, Migration, Construction Activity, Economic Activity, Purchasing Power
		Wong, Hui and Seabrooke, (2003) Hong Kong Interest Rate
Case and Shiller, (2003)	United States	Number of Employment
Han, Yu, Malone-Lee and Basuki, (2002)	Singapore	Land Area, Parks, CBD Schools
McCluskey, Deddis, Lamont and Borst, (2000)	Northern Ireland	Location
Blackley,(1999)	United States	Changes in Tax Policy, Age Composition of the Population, Rate of Household formation
Meen and Andrew, (1998)	UK	Income, real and Nominal interest rates, Wholesale/Consumer price index, Domestic asset base, factors like age, sex, socio-economic status, etc of people living in an area, Tax structure, Financial liberalization, availability of houses, Demographic structure

Contd...

Contd...

Cheshire and Sheppard, (1998)	UK	Location, Level of Income, Population, Transport Policy, Neighbourhood Characteristics
Lenk, Worzala and Silva, (1997)	New Zealand	How many bathrooms, How many bedrooms, Age and covered area of House, lot Size, Basement area, Number of fire places, and car garages
Olusegun (2003)	Nigeria	Location, Accessibility, Number of Bedrooms, Plot Size, Income, Interest Rate, Inflation
Oyebanji (2003)	Nigeria	Location, Contemporary Uses, Institutional Factors Population, Changes in Fashion & Taste

Source: Adapted from Ge and Du (2007), Olusegun (2003), Oyebanji (2003) cited by (Ajibola, Olaniyan-Adekola, & Simon, 2012)

Some attempts have been made to identify the determinants of rent valuation (Wickramaarachchi, N., 2016). The main drawback of hitherto efforts at evolving yardsticks for rent valuation, suffer from lack of factoring in all relevant aspects. Further, any improved and thoroughly developed framework also needs to pass a methodological test. These tries and tribulations for arriving at a framework for rent valuation would still be at the stage of proposition without being audited by conducting empirical tests to validate them.

Objectives

The study attempts to address following two principal aims:

- To evolve a benchmarking framework for assessing rent valuation.
- To examine different dimensions of rent valuation.

Research Methodology

a) Research design: This is exploratory, descriptive and cross-sectional study. It proposes to explore the vital determinants of renting residential house property for which unstructured data gathering instrument was employed. Exploratory factor analysis and second order confirmatory factor analysis is used as statistical method with statistical software SPSS 23.0 and AMOS.

b) Collection of data: *Primary Data* was collected from the respondents with the help of questionnaires. Each participant was persuaded to respond to the same set of questions as it provides an efficient way to collect responses from a large sample for quantitative analysis. In addition, *secondary data* were collected from various sources such as journals, published research papers, etc.

c) Scope of the study: The scope of the study is to identify the determinants of renting residential house property and development of scale for rent valuation. The study is confined to the Lucknow district. The responses were gathered from owners of residential house property only.

d) Data Collection Procedure:

Stage - I: Interviews

Researchers visited different localities, i.e. low income group, middle income group and high income group. Among owners of residential house property, interviews of 42 respondents were conducted at different locations. In the process, researchers also interviewed, 25 property agents dealing in renting the house property and act as mediators between house owners and tenants. On the basis of interviews of both house owners and property agents, 15 common variables from both perspectives, i.e. owners' perspective and agents' perspective, were identified and undertaken for the present study that is essential for development of scale for rent valuation.

Stage – II: Pilot Study

Based on above interviews, selected 15 variables were undertaken for the pilot study on 70 respondents who were the owners of residential house property. Respondents rated on a five-point rating scale, ranging from 1 - 'strongly disagree' to 5 –'strongly agree'. The Cronbach's Alpha for data gathering instrument with 15 items was .908 and confirmed high inter-item reliability.

Stage – III: Data collection

After conducting pilot study and getting satisfactory results, data were collected from respondents i.e. owners of residential house property. Out of 310 questionnaires distributed among respondents, 291 (93.87%) questionnaires were received back and out of which only 283 (91.29%) were complete in all respects. Multistage sampling technique was used to collect the responses.

Demographic Profile of Respondents

To outline the data, Table – 2 provides demographic aspects of the owners of residential house property who are respondents. Responses were analyzed using percentage and frequency distribution. The respondents' profile depicts age group, gender, educational qualification and marital status. Summary revealed that maximum landlords were women (71.70%) and most of the respondents are graduates (54.10 %).

Table 2: Demographic profile of respondents

Particular	Frequency	Percent
Age Group of respondents		
Below 35 years	35	12.40 %
35 years - 45 years	159	56.20%
45 years and above	89	31.40 %
Gender of respondents		
Male	80	28.30 %
Female	203	71.70 %
Educational Qualification of respondents		
Graduation	153	54.10 %
Post Graduation	58	20.50 %
Other	72	25.40 %
Marital status of respondents		
Unmarried	54	19.10 %
Married	229	80.90 %

Data Analysis and Discussion

All the 15 selected variables were passed through principal component analysis and analyzed using orthogonal rotation (varimax). To ensure adequacy of the sampling for present analysis, the Kaiser–Meyer–Olkin (KMO) test was undertaken which resulted in all KMO values for individual items being > .920, well above the acceptable limit of .5 (Field, 2009), and KMO = .942 ('superb' as per Hutcheson & Sofroniou, 1999). The adequacy of correlations existed between different variables for PCA was established by Bartlett's test of sphericity $\div^2$ (105) = 3784.564, $p < .001$. A preliminary test was conducted to get eigen values for every aspect for the data. The three aspects taken together presented 79.924% variance and eigen values > 1, i.e. Kaiser's criterion. The present work being large sample size based which converged on three aspects according to Kaiser's criterion, these three aspects were considered for analytical purposes. Table-4 presents the rotated factor matrix wherein component-1 being the cluster of similar aspects represents a physical attribute, component-2 amenities and other factors and component-3 location, respectively. Cronbach's Alpha of the instrument is .940.

Physical attributes of residential house: It is one of the important factors that owners of residential house property should consider while renting the house property. Physical attributes of houses can be defined by single-storey / multi-storey housing complexes and, provision of how many bed rooms / bath rooms / kitchens and, whether size of these rooms offer large or small space. Moreover, age of the building and quality of construction are also taken into account.

Location: Location is another factor that owners need to consider and earn more income depending on the location of residential house property. In this study, location factor includes distance from public transportation metro route / bus route, distance from railway station, distance from airport and distance from educational institutes, etc.

Amenities and other factors: The services and socio-cultural environment of the location of residential house property is also to be factored in. In the amenities factors like, the access to 24*7 electricity, availability of water, socio-cultural environment of locality, rental agreement and attributes / demographics of tenants, and crime rate, etc are included.

Rent: Chris and Somefun (2007) termed rent as a monthly recovery by property owners which is paid by tenants as user charges. However, it is treated as a return on land by the economists.

KMO test for sampling size adequacy and bartlett's test of sphericity

Kaiser-Meyer-Olkin test for sampling size adequacy		.942
	Chi-Square (Approx.)	3784.564
Bartlett's test of sphericity	Df	105
	Significance	.000

Table 3: Descriptive statistics

Code	Variable	Min	Max	Mean	Std. Deviation
A1	Number of floors	1	5	3.73	1.159
A2	Number and size of bathroom and Kitchen	1	5	3.71	1.154
A3	Number of bedrooms	1	5	3.70	1.207

Contd...

Contd...

A4	Size of bedroom	1	5	3.71	1.146
A5	Age of the building	1	5	3.66	1.178
A6	Quality of construction	1	5	3.73	1.277
A7	Distance from Public transportation / bus route	1	5	3.46	1.127
A8	Distance from Railway station	1	5	3.75	1.325
A9	Distance from Airport	1	5	3.40	1.211
A10	Distance from educational institution	1	5	3.54	1.269
A11	Availability of electricity	1	5	3.58	1.264
A12	Availability of water	1	5	3.73	1.196
A13	Socio- cultural environment of locality	1	5	3.58	1.166
A14	Rental Agreement	1	5	3.65	1.197
A15	Attribute / Demographics of tenant	1	5	3.53	1.247

Table 4: Rotated component matrix[a]

Code	Component 1	Component 2	Component 3
A1	.872		
A4	.858		
A3	.854		
A2	.841		
A5	.823		
A6	.817		
A15		.852	
A11		.824	
A12		.803	
A13		.802	
A14		.774	
A8			.855
A10			.854
A7			.849
A9			.844

Extraction Method: PCA Rotation Method: Normalization (Varimax with Kaiser).

a. Five iterations in the above matrix depicted rotational converged.

Table 5: The determinants of renting residential house properties

Sl.	Particular	Factor Load	Eigen Value	% of Variance	Cronbach Alpha
	PHYSICAL ATTRIBUTE				
A1	Number of Floors	.872	8.231	54.875	.951
A2	Number and size of bathroom and Kitchen	.841			
A3	Number of bedrooms	.854			
A4	Size of bedroom	.858			
A5	Age of the building	.823			
A6	Quality of construction	.817			
	LOCATION				
A7	Distance from Public transportation/ bus route	.849	1.589	10.594	.919
A8	Distance from Railway station	.855			
A9	Distance from Airport	.844			
A10	Distance from educational institution	.854			
	AMENITIES AND OTHER FACTORS				
A11	Availability of electricity	.824	2.168	14.455	.928
A12	Availability of water	.803			
A13	Socio- cultural environment of locality	.802			
A14	Rental Agreement	.774			
A15	Attribute / Demographics of tenant	.852			

Convergent Validity

According to Hair, et al, (2006) generally, indicators show convergence in a construct or express high level of variance for convergence validity using factor loading method. Confirmatory factor analysis with fifteen items using second-order for the convergent validity was derived. Three dimensions emerging from exploratory factor analysis in the first order items were assigned for rent valuation, and in the second order items were loaded on their respective dimensions.

Confirmatory factor analysis corroborates that 3-factor construct synchronizes with the data. (CMIN/df - 1.544, comparative fit index: .987, Tucker–Lewis Index: .985, approximate RMSE - .044). 3-D factor loading- Fig.- 1. Every loading is

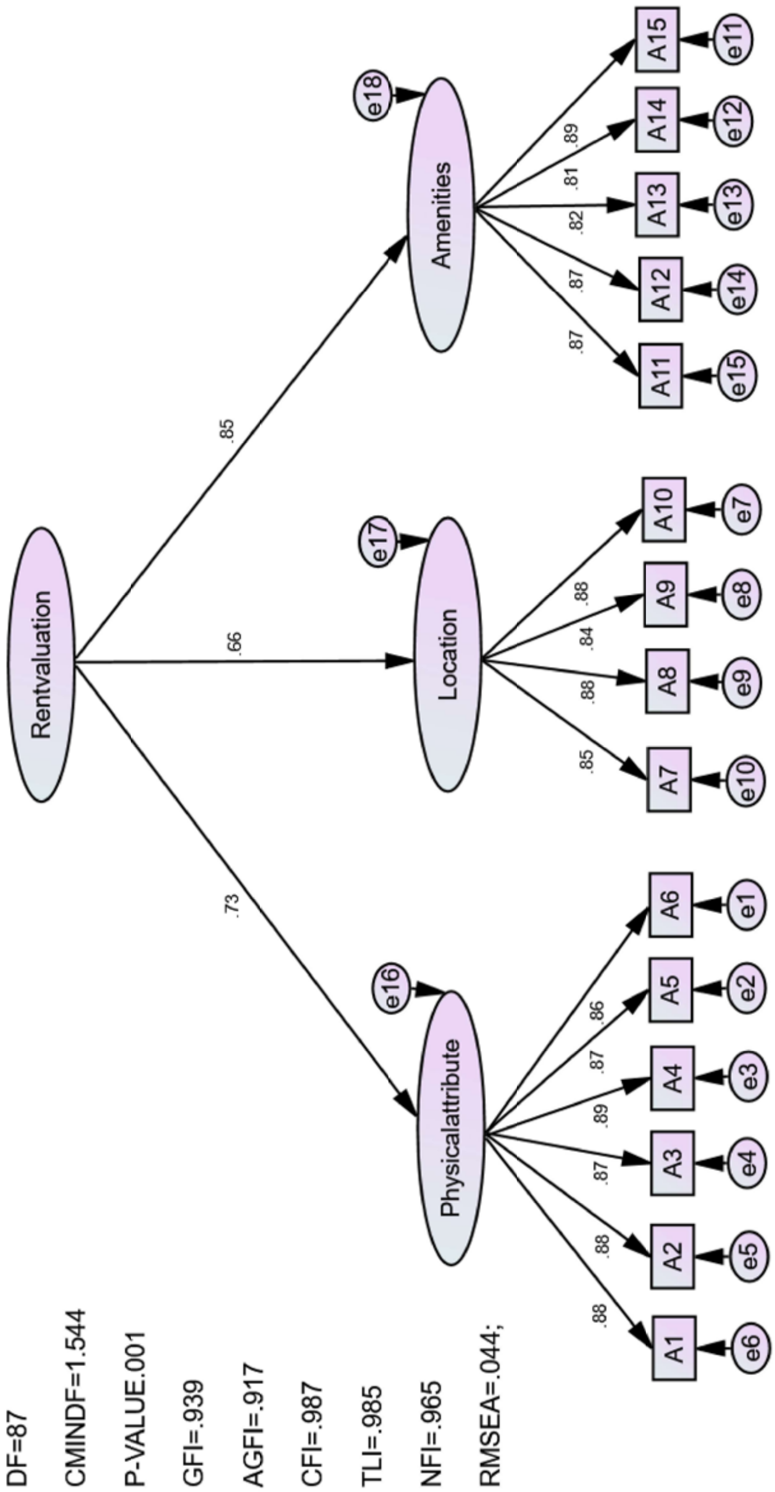

Fig. 1:The structural model

significant being more than 0.6, represents factors of similar construct. Proof of convergence validity reinforces that the 3-dimensions belong to the same construct. The second order confirmatory factor analysis results reflect that three dimensions of rent valuation are highly loaded (0.73, 0.66 and 0.85, for physical attribute, location and amenities and other factors, respectively) and were statistically significant at .001 level. The factor loadings of physical attribute and amenities & other factor are above 0.70. The value of factor loading being 0.66 for locational construct is lower relative to two other dimensions. Reason being infrastructural development taking place at rapid pace in Lucknow, whereas the other two dimensions are related (directly or indirectly) to the residential house property.

Conclusion

In current scenario, increased migration to urban areas has provided a new source of income for the owners of residential house property. Recently, investment in house property has become most preferred option owing to the increased pace of urbanization. A house property can assure a source of income to the owner by way of rental income, but it is not easier as each house property has its unique value and is difficult to manage. The study underlines the important factors which influence the owners of residential house property while deciding the rental value. Due to fast changing economic scenario accompanied with widespread urban migration for better job opportunities, education, etc is expected to exert tremendous pressure on the housing requirement. This study is expected to assist the owners to consider the determinants while fixing the rental value of their residential house property in Lucknow, in particular and other Pan-Indian urban locations, in general. With the help of this empirical study, we have tried to identify the factors such as physical attributes, location and available amenities of residential house property which is important to decide the rent and can earn higher rental income to the owners. Moreover, by using exploratory factor analysis and confirmatory factor analysis, the study suggests a three-dimensional model for rent valuation.

Limitations and Directions for Future Research

Despite development of a scale for rent valuation, this study suffers from limitations which need to be addressed in future. The dimensions have been established on the basis of factor analysis benchmarking scale. An in depth investigation of owners' behaviour of residential house property is required and more aspects could be included in the scale to make it comprehensive. Second, convergent validity of the rent valuation benchmarking warrants collection of large sample and longitudinal studies. Third, the yardstick was prepared on data collected from respondents located in Lucknow. It may be tested on samples from other cities.

REFERENCES

Ajibola, M. O., Olaniyan-Adekola, M., & Simon, R. F. (2012). Assessing the effects of urban planning on residential property values in agege, Lagos. *European Scientific Journal, 8*(11), 195-214.

Babalola, S. J., Umar A. I. & Sulaiman, L. A. (2013). An economic analysis of determinants of house rents in the university environment. *European Scientific Journal.* 9(19), 101-113.

Chris, A. O., & Somefun, A. O. (2007). The effects of facilities provision on rental values of residential properties in Ikeja: Logos State, *Journal of Land Use and Development Studies*, 3, 61-67.

Field, A. (2009). Discovering Statistics using SPSS. Sage publication.

Hair, J.F. Jr., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R.L. (2006). Multivariate Data Analysis.

Han, J. & Kim, K. (2014). An analysis on rent determinants of retail property - focusing on wholesale and retail services. *Behavioral Sciences and Economics Issues.*135-140.

Hutcheson, G., & Sofroniou, N. (1999). The multivariate social scientist. London: Sage.

Olayinka Abel Ogungbemi (2012). Factors influencing change of use and Its attendant problems: case study of Yaya Abatan Ogba. Lagos State. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)* 3(6): 901-906.

Owusu-Ansah, A. (2012). Examination of the determinants of housing values in urban Ghana and implications for policy makers. *IRE BS Foundation for African Real Estate Research.* 1-16.

Sanga S. A. (2017). The impact of traditional house-type on rental values in Kinondoni municipality Dar es Salaam Tanzania. *Nordic Journal of Surveying and Real Estate Research.* 12(1), 7-37.

Seo, D., Chung, Y. S. & Kwon, Y. (2018). Price determinants of affordable apartments in Vietnam: toward the public–private partnerships for sustainable housing development. *MDPI Journal Sustainability.* 1-17. www.mdpi.com/journal/sustainability

Tomisi, O. A., Oluwatosin B. F. & Samson, E. A. (2016). Determinants and effects of change in use on property rental value a case study Ibara/Oke-Ilewo Area, Abeokuta, Ogun State. *IOSR Journal of Humanities and Social Science.* 21(4), 1-9.

Wickramaarachchi, N.C., (2016). Determinants of rental value for residential properties: A land owner's perspective for boarding homes. *Research Journal of the Sri Lanka Institute of Architects.* 12(1), 10-22.

Xu, L. & Tang, B. (2014). On the determinants of UK house prices. *International Journal of Economics and Research.* 5(2), 57-64. www.ijeronline.com.

The Indian Journal of Commerce
Vol. 72, No. 3&4, July-Dec, 2019

Degree of Leverage and its Impact on Cash Holdings in Indian Manufacturing Firms

MAHESWAR SETHI AND RABINDRA KUMAR SWAIN

Abstract: This paper analyzes the effect of degree of leverage on cash holdings and the effect of firm characteristics on cash holdings of high leveraged and low leveraged Indian manufacturing firms over a period from 2005 to 2017. The result finds that there is a significant difference in the cash holdings of high leveraged and low leveraged firms and high leveraged firm hold more cash. The comparative analysis of the effect of firm characteristics on cash holdings of high leveraged and low leveraged firms reveals that the effect of firm characteristics on cash holdings differs with degree of leverage. Further, dividend is positively associated with cash holdings in high leveraged firm and negatively associated with cash holdings in low leveraged firm. It means high leveraged firm paying dividend hold more cash as such firms don't want to skip dividend at any point of time to make the investors confident on financial performance and condition of the company whereas low leveraged firms paying dividend hold less cash as they have greater financial flexibility and can raise external finance at lesser cost. Net working capital is positively associated with cash holdings in high leveraged firm and negatively associated with cash holdings in low leveraged firm. It means higher level of debt induces a firm to hold more cash in relation to net working capital to hedge the risk of failure in converting working capital into cash and to avoid interruption in manufacturing process as such firms are already debt burdened. R&D has positive impact on cash holdings irrespective of the level of debt because R&D driven innovations are difficult to finance through external financing due to their uncertain outcome, intangible nature and asymmetric information problems.

Keywords: Leverage; Cash holdings; Firm characteristics; Trade-off theory; Pecking order theory; Agency Theory

Introduction

Corporate cash policy plays a critical role in corporate finance. Cash is the crucial components of firm's current asset that shows the capacity of the firm to honour its obligations. It is the means as well as end for every business in the sense that

Mr. Maheswar Sethi is Lecturer, P.G. Department of Commerce, Berhampur University, Bhanja Bihar, Berhampur, Ganjam, Odisha and Dr. Rabindra Kumar Swain, Assistant Professor, P.G. Department of Commerce, Utkal University, Vani Vihar, Bhubaneswar, Odisha

cash is infused in the business in the form of acquisition of fixed assets and investment in operation like purchase of raw materials, payment of wages etc. which passes through subsequent phases of work-in-progress, finished goods and sales to get converted into cash. Hence, cash is the basic input for the business and also the ultimate outcome that businesses expect to realize. Firms hold cash for different reasons such as transaction motive, precautionary motive, speculative motive, agency motive and strategic motive. The behavior of firm to hold cash is explained by several financial theories such as static trade-off theory (Myer, 1977), pecking order theory (Myers and Majluf, 1984) and agency theory (Jensen, 1986). As per static trade-off theory, firm cash balance is determined by striking a balance between costs of cash shortage and opportunity cost of holding cash. Pecking order theory of Myers & Majluf (1984) states that firms firstly prefer to finance their investment by retained earnings and then by debt and finally by equity. When the firms generate enough funds from operation and the funds are sufficient to finance firm's positive NPV project then the firms will repay the debt first of all than to accumulate cash. Though these theories explain the cash behavior of the firms still there are a number of characteristics and macro economic factors affecting the cash holdings of the firms.

Review of Literature

Firms in pursuit of increasing the shareholder's value use borrowed fund which is called as leverage. Some firms are seen to use very high debt capital (high leveraged firm) whereas some uses very low debt capital (low leveraged firm). Leverage creates obligation for the firms with respect to repayment of principal as well as payment of periodic interest. As per static trade-off theory, firms with higher leverage hold higher liquid assets as leverage enhances the likelihood of financial distress and cost of bankruptcy. Cash also reduces underinvestment problem which is more articulated with the existence of risky debts. Pecking order theory also posits a positive association of leverage with cash holdings on the view that debt increases when firm exhausts all its internal resources in financing the investments that reduces cash holdings. However, agency theory states that high leveraged firms face more monitoring and debt covenants by creditors which lessens the managerial discretion to hold large cash. Further, high leverage shows the firm's ability to raise debts which induces less cash holdings cash.

The findings by Chauhan et al. (2018), Hu et al. (2018), Maheshwari & Rao (2017), Al-Najjar (2013), Ali & Yousaf (2013), Stone & Gup (2013), Gogineni (2012), Megginson & Wei (2012), Sun et al. (2012), Bates et al.(2009), Afza & Adnan (2007), Nguyen (2005), Ozkan & Ozkan (2004), Ferreira & Vilela (2004), Kim et al. (1998), Opler et al. (1999), John (1993) and Bhat & Bachhawat (2005) have revealed a negative association of leverage with cash holdings. But empirical findings by Steijvers et al. (2009), Gill & Shah (2012), Islam (2012), Ajao et al. (2012) and Bashir (2014) have revealed a positive association of leverage with cash holdings. However, Guney et al. (2007) revealed that leverage negatively affects cash holdings up to a certain level and after that it positively affect cash holdings suggesting a non-linear relationship between leverage and cash holdings.

Prior works as discussed in the above literature has emphasized on the influence of leverage and other firm characteristics on cash holdings in general but the effect of degree of leverage i.e. high leverage and low leverage on cash position of the Indian manufacturing firms has not received any attention of the researchers. Further, difference in the effect of firm characteristics on the cash position of high leveraged and low leveraged firms in Indian context has not been heeded. Hence, this study investigates the effect of degree of leverage on cash position and difference in the effect of firm characteristics on cash position of high leveraged and low leveraged firms.

Objectives of the Study

The objectives of the study are as follows:

- To analyze the effect of degree of leverage on cash holdings of Indian manufacturing firms.
- To analyze the difference in the effect of firm specific characteristics on cash holdings of high leveraged and low leveraged Indian manufacturing firms.

Scope of the Study

This study is confined to the investigation of effect of degree of leverage on cash holding and difference in the effect of firm characteristics on cash holdings of high leverage and low leverage Indian manufacturing firms. The study has taken Cash as dependent variable and firm characteristics such as Firm size (SIZE), Growth opportunities (GOP), Leverage (LEV), Cash Flow (CF), Dividend (DIV), Net Working Capital (NWC), Research and Development Expenditure (R&D), Assets Tangibility (TAN), Profitability (PFT), Interest Expenses (INE), Cash Conversion Cycle (CCC), Inverse of Altman's Z Score (1/Z), Firm Age (AGE) and Cash Flow Volatility (CFV) as the independent variables for studying their effect on cash holdings.

Hypotheses

Basing upon the research objectives the following two null hypotheses are designed to be tested.

H_{01}: Degree of leverage does not affect cash holdings of Indian manufacturing firms.

H_{02}: There is no difference in the effect of firm characteristics on cash holdings of high leveraged and low leveraged Indian manufacturing firms.

Research Methodology

The data used in this study relates to Indian manufacturing firms listed in BSE (Bombay Stock Exchange) and NSE (National Stock Exchange) and data has been collected from PROWESS data base of CMIE (Centre for Monitoring Indian Economy). The study period covers a period of 13 years from 2005 to 2017. Initial samples of 17,807 manufacturing firms were collected from PROWESS out of which 17,307 were found to be with missing financial statement information. Hence, a final sample of 500 firms is formed for the study. For classifying firms into high leveraged and low leveraged group, this study has adopted the methodology of Denis and Sibilkov (2009) and Almeida et al. (2004) with little modification that instead of deciles technique the study has adopted quartile technique. So the sample firms are ranked on the basis of their leverage. 125 firms in the top quartile are assigned to high leveraged group and 125 firms in the bottom quartile are assigned to low leveraged group. To test the hypotheses, the study uses various tools like ANOVA, descriptive statistics, correlation matrix, multicollinearity test and regression analysis.

Model Specification

The study estimates following Ordinary Least Squares (OLS) model to analyze the effect of high leverage on cash holdings. For this purpose DUM HL is taken as explanatory variable and other variables are taken as control variables. DUM HL is a dummy variable that takes the value 1 for high leveraged firm and 0 for low leveraged firm. The estimated model is as follows:

$$CASH_{it} = \alpha_0 + \beta_1 SIZE_{it} + \beta_2 GOP_{it} + \beta_3 CF_{it} + \beta_4 DIV_{it} + \beta_5 NWC_{it} + \beta_6 R\&D + \beta_7 TAN_{it} = \beta_8 PFT_{it} + \beta_9 INE_{it} + \beta_{10} CCC_{it} + \beta_{11} 1/Z_{it} + \beta_{12} AGE_{it} + \beta_{13} CFV_{it} + \beta_{14} DUMHL_{it} + \varepsilon .... \quad (I)$$

Further, to analyze if there is any difference in the effect of firm characteristics on cash holding of high leveraged and low leveraged firms, the study estimates two separates OLS models for both high leveraged and low leveraged firm as follows:

$$CASH_{HLit} = \alpha_0 + \beta_1 SIZE_{it} + \beta_2 GOP_{it} + \beta_3 CF_{it} + \beta_4 DIV_{it} + \beta_5 NWC_{it} + \beta_6 R\&D + \beta_7 TAN_{it} = \beta_8 PFT_{it} + \beta_9 INE_{it} + \beta_{10} CCC_{it} + \beta_{11} 1/Z_{it} + \beta_{12} AGE_{it} + \beta_{13} CFV_{it} + \varepsilon .... \quad (II)$$

$$CASH_{LLit} = \alpha_0 + \beta_1 SIZE_{it} + \beta_2 GOP_{it} + \beta_3 CF_{it} + \beta_4 DIV_{it} + \beta_5 NWC_{it} + \beta_6 R\&D + \beta_7 TAN_{it} = \beta_8 PFT_{it} + \beta_9 INE_{it} + \beta_{10} CCC_{it} + \beta_{11} 1/Z_{it} + \beta_{12} AGE_{it} + \beta_{13} CFV_{it} + \varepsilon .... \quad (III)$$

Where,

$CASH_{it}$ = Cash holdings, measured as ratio of cash and cash equivalents to net assets. Net assets mean total assets net of cash and cash equivalents. $SIZE_{it}$ = Size of the firm, calculated as natural logarithm of net assets. GOP_{it} = Growth opportunities, calculated as market-to-book ratio. Market-to-book ratio is calculated as ratio of book value of net assets minus book value of equity plus market value of equity to net assets. LEV_{it} = Leverage, calculated as ratio of total debt to net assets. CF_{it} = Cash flow, calculated as ratio of cash flow from operation to net assets.

DIV= A dummy for dividend that takes a value 1 for dividend paying firms and 0 otherwise. NWC= Net working capital, calculated as ratio of net working capital net of cash and cash equivalents to net assets. R&D= Research and Development expenditure, calculated as ratio of R&D expenditure to net assets. TAN= Tangibility of assets, calculated as ratio of fixed assets to net assets. PFT= Profitability, calculated as ratio of EBIT to net assets. INE= Interest expenses, calculated as ratio of interest expenses to net assets. CCC= Length of cash conversion cycle, calculated as natural logarithm of inventory conversion period plus debtor conversion period minus creditor deferment period. 1/Z= Inverse of adjusted version of Altman's Z score (1968). AGE= Age, calculated as natural logarithm of years of firm's existence since incorporation. CFV= Cash flow volatility, calculated as the volatility of a firm's cash flow from operation over net assets during the study period. = A dummy that takes the value 1 if a firm is a high leveraged firm and 0 if a firm is a low leveraged firm.

Results and Discussion

Analysis of Variance (ANOVA)

Before analyzing the effect of high leverage on cash holdings it is imperative to empirically test the existence of difference in cash holdings of high leveraged and low leveraged firm. For this purpose, this study uses ANOVA with following hypotheses:

H_0: There is no difference in cash holding of high leveraged firms and low leveraged firms.

H_1: There is difference in cash holding of high leveraged firms and low leveraged firms.

Table 1 depicts the result of single factor ANOVA for difference in cash holdings of high leveraged and low leveraged firms. F statistics of 23.206 with P- value of 0.000 shows that there is significant difference in cash holdings of high leveraged and low leveraged Indian manufacturing firms. This difference provides an inquisitiveness to further analyze the difference in cash holdings through regression analysis to confirm the result of ANOVA and to know the influence of high leverage on cash level.

Table 1: ANOVA result of cash holdings of high leveraged firms and low leveraged firms

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.489	1	0.489	23.206	0.000	3.880
Within Groups	5.187	246	0.021			
Total	5.676	247				

Source: Authors' own calculation.

Regression Analysis of Model-I

To analyze the effect of degree of leverage on cash holdings the study has taken the following hypothesis:

H_{01}: Degree of leverage does not affect cash holdings of Indian manufacturing firms.

H_{11}: Degree of leverage affects cash holdings of Indian manufacturing firms.

Table 2 shows the result of regression analysis of Indian manufacturing firms using high leverage as a target variable. This study uses a dummy that takes the value 1 if a firm is high leveraged firm and 0 if a firm is low leveraged firm. To study the effect of degree of leverage on firm's cash holdings, leverage dummy is used as primary explanatory variable and other variables such as firm size, growth opportunities, cash flows, dividend, net working capital, R&D expenditure, assets tangibility, profitability, interest expenses, cash conversion cycle, inverse of Altman's Z score, firm age and cash flow volatility are used as control variables. The HL dummy with P-value of 0.000 rejects the null hypothesis at 1% level of significance that degree of leverage does not affect cash holdings of Indian manufacturing firms and supports the alternative hypothesis that degree of leverage affects cash holdings of Indian manufacturing firms.

The coefficient of 0.341 documents that high leverage has significantly positive effect on cash holdings. Similarly, using low leverage dummy that takes the value 1 if a firm is low leveraged firm and 0 if a firm is a high leveraged firm, the study obtained a coefficient of -0.341 and p-value of 0.000 which documents that low leverage has significantly negative impact on cash holdings. It means that degree of leverage affects cash holdings decision and high leveraged firms hold more cash to avoid cost of bankruptcy and high cost of external financing. This result aligns with the result of Guney et al. (2007).

Table 2: Regression result of model-I

Effect of high leverage on cash holdings			
	Dependent variable	Cash	
Independent variables	Coefficient	T-test	P-values
Intercept	-2.802	-8.919	0.000
SIZE	-0.187	-9.989	0.000
GOP	0.110	6.402	0.000
CF	1.523	5.385	0.000
DIV	0.392	5.702	0.000
NWC	0.045	1.791	0.073
R&D	4.924	3.290	0.001
TAN	-0.069	-0.741	0.459
PFT	0.216	4.849	0.000
INE	-13.760	-9.746	0.000
CCC	0.009	0.334	0.739
1/Z	-0.030	-0.743	0.458
AGE	-0.046	-0.804	0.422
CFV	0.098	0.189	0.850
DUM HL	0.341***	4.880	0.000
F- test	F(14, 3235)	51.204	0.000
Adjusted R^2	0.178		
Observations	3250		

Source: Authors' own calculation.

Note: ***, ** and * indicate significant level at 1%, 5% and 10% respectively.

Further, the above result provides an inquisitiveness to analyze the effect of firm characteristics on cash balance of high leveraged and low leveraged firm. Before performing regression analysis, it is necessary to study the descriptive statistics, correlation and multicollinearity among the variables under study.

On observing the Table 3 it is known that the average cash holdings to net assets of the high leveraged manufacturing firms stand at 6.9% as against 8.1% in case of low leveraged manufacturing firms. Similarly the median cash holdings of the high leveraged firms stand at 1.7% as against 2.6% in case of low leveraged firms. Hence, it is seen from the descriptive statistics that the average cash holdings of the high leveraged firms are lower than the low leveraged firms.

Table 3: Descriptive statistics of high leveraged versus low leveraged firms

	Mean	Median	Minimum	Maximum	Std. Dev.	C.V.
			High leveraged Firms			
CASH	0.069	0.017	0.000	2.494	0.197	2.865
SIZE	8.975	8.787	5.340	13.588	1.541	0.172
GOP	1.636	1.081	0.473	22.489	1.862	1.138
CF	0.075	0.067	-0.487	0.860	0.114	1.526
DIV	0.523	1.000	0.000	1.000	0.500	0.955
NWC	0.371	0.091	-4.770	27.124	1.416	3.814
R&D	0.004	0.000	0.000	0.131	0.010	2.923
TAN	0.655	0.638	0.065	2.765	0.330	0.504
PFT	1.215	1.051	-0.002	4.879	0.770	0.634
INE	0.041	0.038	0.000	0.290	0.027	0.676
CCC	4.268	4.397	-2.526	11.662	1.226	0.287
1/Z	0.275	0.191	-14.607	24.318	0.927	3.366
AGE	3.448	3.332	2.303	4.852	0.514	0.149
CFV	0.091	0.077	0.030	0.302	0.048	0.525
			Low Leveraged Firms			
CASH	0.081	0.026	0.000	1.624	0.149	1.846
SIZE	8.528	8.235	5.061	14.412	1.635	0.192
GOP	2.050	1.423	-0.115	21.753	1.756	0.856
CF	0.109	0.102	-0.364	1.070	0.099	0.903
DIV	0.874	1.000	0.000	1.000	0.332	0.380
NWC	0.471	0.319	-1.365	5.431	0.580	1.231
R&D	0.010	0.001	0.000	0.237	0.024	2.343
TAN	0.568	0.525	0.032	1.794	0.298	0.524
PFT	1.152	1.005	0.063	6.721	0.734	0.637
INE	0.010	0.005	0.000	0.075	0.012	1.187
CCC	4.561	4.613	-1.273	12.621	0.956	0.210
1/Z	0.146	0.129	-0.205	0.694	0.085	0.580
AGE	3.617	3.611	2.303	4.673	0.457	0.126
CFV	0.089	0.072	0.019	0.474	0.061	0.689

Source: Authors' own calculation.

The standard deviation and coefficient of variance of high leveraged firms stands at 0.197 and 2.865 respectively whereas the standard deviation and coefficient of variance of low leveraged firm stands at 0.149 and 1.846 respectively which states that the cash holdings of high leveraged firms are more volatile as compared to low leveraged firms.

The average size, growth opportunities, cash flows, dividend, net working capital, R&D expenditure, tangibility, profitability, interest expenses, cash conversion cycle, 1/Z score, age and cash flow volatility of high leveraged firms stand at 8.975, 1.636,0.075, 0.523, 0.371, 0.004, 0.655, 1.215, 0.041, 4.268, 0.275, 3.448 and 0.091 respectively whereas the average size, growth opportunities, cash flows, net working capital, R&D expenditure, tangibility, profitability, interest expenses, cash conversion cycle, 1/z score, age and cash flow volatility of low leveraged firms stand at 8.528, 2.050, 0.109, 0.874, 0.471, 0.010, 0.568, 1.152, 0.010, 4.561, 0.146, 3.617 and 0.089 respectively.

Table 4 represents the Karl Pearson correlation among the variables. The correlation among the variables ranges from 0.006 to 0.417 which indicates that none of the correlation coefficient is high enough to present collinearity problem. In addition, variance inflation factor is used to check the multicollinarity among the firm variables.

The VIF of size, growth opportunities, cash flow, dividend, net working capital, R&D expenditure, assets tangibility, profitability, interest expenses, cash conversion cycle, inverse of Altman's Z score, age and cash flow volatility is 1.305, 1.533, 1.389, 1.362, 1.164, 1.087, 1.434, 1.816, 1.397, 1.448, 1.065, 1.100 and 1.247 respectively. The highest VIF is 1.816 which indicates no multicollinearity among the variables used in this study.

Table 6 represents the Karl Pearson correlation among the variables. The correlation among the variables ranges from 0.001 to 0.542 which indicates that none of the correlation coefficient is high enough to present collinearity problem. In addition, variance inflation factor is used to check the multicollinarity among the firm variables.

The VIF of size, growth opportunities, cash flow, dividend, net working capital, R&D expenditure, assets tangibility, profitability, interest expenses, cash conversion cycle, inverse of Altman's Z score, age and cash flow volatility are 1.413, 1.707, 1.291, 1.200, 1.114, 1.160, 1.230, 2.123, 1.507, 1.457, 2.732, 1.305 and 1.244 respectively. The highest VIF is 2.732 which indicate no multicollinearity among the variables used in this study.

Table 4: Correlation matrix of high leveraged firms for model-II

CASH	SIZE	GOP	CF	DIV	NWC	R&D	TAN	PFT	INE	CCC	1/Z	AGE	CFV	
1.000	-0.142	0.275	0.224	0.204	0.006	0.122	0.055	0.172	-0.254	-0.150	-0.039	-0.010	0.119	CASH
	1.000	0.083	-0.027	0.143	-0.159	0.098	-0.334	-0.109	-0.174	0.051	0.054	0.194	-0.168	SIZE
		1.000	0.417	0.193	-0.044	0.154	-0.147	0.338	-0.276	-0.172	-0.065	0.144	0.317	GOP
			1.000	0.173	-0.038	0.071	0.147	0.335	-0.086	-0.268	-0.061	0.064	0.173	CF
				1.000	0.112	0.157	-0.243	0.285	-0.410	-0.148	-0.105	0.013	0.055	DIV
					1.000	-0.028	-0.143	0.172	-0.125	-0.025	-0.032	-0.181	0.002	NWC
						1.000	-0.149	-0.051	-0.168	0.061	-0.019	0.057	0.006	R&D
							1.000	-0.055	0.330	-0.129	-0.036	-0.045	-0.071	TAN
								1.000	-0.135	-0.511	-0.186	0.024	0.302	PFT
									1.000	0.053	-0.054	-0.087	-0.006	INE
										1.000	0.150	0.048	-0.088	CCC
											1.000	0.038	-0.008	1/Z
												1.000	-0.013	AGE
													1.000	CFV

Source: Authors' own calculation.

Table 5: Result of multicollinearity test for model-II

Variables	SIZE	GOP	CF	DIV	NWC	R&D	TAN	PFT	INE	CCC	1/Z	AGE	CFV
VIF	1.413	1.707	1.291	1.200	1.114	1.160	1.230	2.123	1.507	1.457	2.732	1.305	1.244

Source: Authors' own calculation.

Table 6: Correlation matrix of low leveraged firms for model-III

CASH	SIZE	GOP	CF	DIV	NWC	R&D	TAN	PFT	INE	CCC	1/Z	AGE	CFV	
1.000	-0.101	0.189	0.236	0.040	0.057	0.140	0.098	0.206	-0.132	-0.097	-0.211	0.001	0.067	CASH
	1.000	0.300	0.073	0.164	-0.197	0.109	-0.160	-0.150	-0.188	-0.082	-0.113	0.308	-0.154	SIZE
		1.000	0.325	0.051	0.064	0.250	-0.138	0.153	-0.240	-0.112	-0.505	0.077	0.107	GOP
			1.000	0.160	0.090	0.105	0.185	0.303	-0.103	-0.178	-0.305	-0.011	0.098	CF
				1.000	0.048	0.068	0.031	0.109	-0.194	-0.119	-0.272	0.260	-0.096	DIV
					1.000	0.035	0.010	0.093	-0.016	0.021	-0.138	-0.149	0.168	NWC
						1.000	-0.098	-0.040	-0.043	0.055	-0.143	-0.045	0.234	R&D
							1.000	0.256	0.178	-0.130	-0.013	0.002	-0.099	TAN
								1.000	-0.153	-0.523	-0.542	0.028	0.084	PFT
									1.000	0.151	0.516	-0.187	0.072	INE
										1.000	0.331	-0.054	-0.068	CCC
											1.000	-0.201	-0.053	1/Z
												1.000	-0.296	AGE
													1.000	CFV

Source: Authors' own calculation.

Table 7: Result of multicollinearity test for model-III

Variables	SIZE	GOP	CF	DIV	NWC	R&D	TAN	PFT	INE	CCC	1/Z	AGE	CFV
VIF	1.413	1.707	1.291	1.200	1.114	1.160	1.230	2.123	1.507	1.457	2.732	1.305	1.244

Regression Analysis of Model-II and Model-III

The regression model-II and Model-III aims at testing the following hypotheses.

H_{02}: There is no difference in the effect of firm characteristics on cash holdings of high leveraged and low leverage Indian manufacturing firms.

H_{12}: There is difference in the effect of firm characteristics on cash holdings of high leveraged and low leverage Indian manufacturing firms.

Table 8 shows the result of Pooled Ordinary Least Squares regression measuring the effect of firm characteristics on cash holdings of high leveraged and low leveraged firms.

The result finds that the adjusted R^2 for high leveraged and low leveraged firms are 0.225 and 0.174 respectively. It indicates that the models explain 22.5% and 17.4% of cash holdings of high leveraged and low leveraged firms respectively. The adjusted R^2 agrees with prior studies such as Foley et al. (2007) reported 0.04 in U.S.A context, Gao et al. (2013) reported 0.18 in U.S.A. context, Hardin et al. (2009) reported 0.19 in U.S.A. context, Ozkan & Ozkan, (2004) reported 0.24 in U.K context and Dittmar et al. (2003) reported 0.12 in cross country context. F statistics is 37.202 with p value 0.000 and 27.319 with p value of 0.000 indicate that firm characteristics have significant explanatory power to explain the model.

The coefficient and p values of the each variable reported in the Tables 8 rejects the null hypothesis at 1% and 10% significance level that there is no difference in effect of firm characteristics on cash holdings of high leveraged and low leveraged firms and the alternative hypothesis that there is difference in effect of firm characteristics on cash holdings of high leveraged and low leveraged firms. However, inverse of Altman Z score, age and cash flow volatility do not have significant effect on cash balance of both high leveraged and low leveraged firms. The effect of firm characteristics on cash holdings of high leveraged and low leveraged firms are as follows.

Firm Size (SIZE): Firm size has negative effect on cash holdings of both high leveraged (-0.132, 0.000) and low leveraged firms (-0.250, 0.000) which support the trade-off theory. However, the effect of size on cash holdings of high leveraged firms is less than low leveraged firms.

Growth Opportunities (GOP): Growth opportunities have positive effect on cash holdings of both high leveraged (0.171, 0.000) and low leveraged firms (0.080, 0.003) which means that growth opportunities induces firms to keep more cash irrespective of level of leverage. However, in high leveraged firm such effect is found to be more as compared to low leveraged firms.

Table 8: Regression result of model-II and model-III

	High Leveraged Firm (Model-II)			Low Leveraged Firm (Model-III)		
	Dependent Variable			Cash		
Independent Variables	Coefficient	T-test	P-values	Coefficient	T-test	P-values
Intercept	-2.252	-5.252	0.000	-2.854	-5.533	0.000
SIZE	-0.132***	-4.928	0.000	-0.250***	-9.514	0.000
GOP	0.171***	7.101	0.000	0.080***	2.975	0.003
CF	1.083***	2.897	0.004	2.212***	5.318	0.000
DIV	0.602***	7.130	0.000	-0.060	-0.502	0.616
NWC	0.084***	3.041	0.002	-0.081	-1.233	0.218
R&D	9.423***	2.590	0.010	4.867***	2.964	0.003
TAN	-0.622***	-4.750	0.000	0.569***	4.231	0.000
PFT	-0.106*	-1.670	0.095	0.347***	4.841	0.000
INE	-9.205***	-5.913	0.000	-17.987***	-4.712	0.000
CCC	-0.093***	-2.622	0.009	0.069	1.517	0.129
1/Z	-0.043	-1.078	0.281	-0.260	-0.370	0.712
AGE	-0.024	-0.324	0.746	0.034	0.374	0.709
CFV	0.397	0.471	0.638	0.474	0.724	0.469
F- test	F(13, 1611)	37.202	0.000	F(13, 1611)	27.319	0.000
Adjusted R^2	0.225			0.174		
Observations	1625			1625		

Source: Authors' own calculation.

Note: ***, ** and * indicate significant level at 1%, 5% and 10% respectively.

Cash flow (CF): Cash flow is positively associated with cash holdings in high leveraged (1.083, 0.004) and low leveraged firms (2.212, 0.000). It means that both high and low leveraged firms hold more cash when cash flow is higher for future investment which aligns the Pecking Order theory. Moreover, the effect of cash flow on cash holdings is more in low leveraged firms as compared to high leveraged firms.

Dividend (DIV): Dividend has positive effect on cash holdings of high leveraged firms (0.602, 0.000) whereas the effect of dividend on cash holdings in low leveraged firms (-0.060, 0.616) is insignificant. It means that high leveraged firms paying dividend hold more cash as failure in paying dividend will dampen investor's confidence on the performance of the firm which is more prevalent with the presence of high debt. Further the high leveraged firms hold more cash to avoid higher cost of external financing. On the other hand, low leverage firms have greater flexibility in accessing external source of financing as their levels of debt are less. Hence, dividend payment is immaterial for them and is not an important factor in deciding the cash balance.

Net working capital (NWC): Net working capital is positively related to cash holdings in high leveraged firms (0.084, 0.002) which mean that with short cash conversion cycle, working capital gets converted into cash quickly leading to higher cash holdings and high leveraged firms keep major portion of the NWC in the form of highly liquid assets. However, such relationship is insignificant in low leveraged firms (-0.081, 0.218).

R&D expenditure (R&D): R&D expenditure is positively related to cash holdings in both high leveraged (9.423, 0.010) and low leveraged firms (4.867, 0.003). It means that firms making expenditure on R&D hold more cash irrespective of their level of debt. This is because R&D driven innovations are difficult to finance through external financing due to their uncertain outcome, intangible nature and asymmetric information problems. However, such impact is higher in high leveraged firms as compared to low leveraged firms.

Assets Tangibility (TAN): The study finds that assets tangibility has negative effect on cash holdings in high leveraged firms (-0.622, 0.054) whereas it has positive effect on cash holdings in low leveraged firms (0.569, 0.000).

Profitability (PFT): Profitability is negatively associated with cash holdings in high leveraged firms (-0.106, 0.095) which supports the trade-off theory that profit is an immediate source of liquidity for firms. Whereas it is positively associated with cash holdings in low leveraged firms (0.347, 0.000) which support Pecking Order theory. It means that low leveraged firms save more cash due to less financial obligation in terms of payment of principal and interest.

Interest Expenses (INE): The impact of interest expenses (INE) on cash holdings is negative in high leveraged firms (-9.205, 0.000) and low leveraged firms (-17.987, 0.000). This indicates that firms with more interest payments hold less cash. Moreover, such impact is more in low leveraged firms as compared to high leveraged firm.

Cash Conversion Cycle (CCC): The effect of cash conversion cycle on cash balance is negative in high leveraged firms (-0.093, 0.009). It means that long cash conversion cycle leads to delay in realization of cash which reduces the cash balance. Further, long cash conversion cycle also mean less payable which reduces the need for cash. However, such impact is insignificant in low leveraged firms (0.069, 0.129).

Inverse of Altman's Z score (1/Z): Financial distress has no insignificant impact on cash holdings of both high leveraged (-0.043, 0.281) and low leveraged firms (-0.260, 0.712).

Firm age (AGE): Firms age have insignificant impact on cash holdings of both high leveraged (-0.024, 0.746) and low leveraged firms (0.034, 0.709).

Cash flow volatility (CFV): Cash flow volatility has insignificant impact on cash balance of both high leveraged (0.397, 0.638) and low leveraged firms (0.474, 0.469). It implies that both the firms do not consider cash flow uncertainty while deciding the cash balance.

Findings

The above analysis found that there a significant difference in the cash holdings of high leveraged and low leveraged firms and high leverage positively affect cash holdings. It means high leveraged firms hold more cash to avoid cost of bankruptcy and high cost of external financing. In a high leveraged firms growth opportunities, cash flow, dividend, NWC and R&D have positive effect on cash holdings whereas firm size, tangibility, profitability, interest expenses and CCC have negative effect on cash holdings. However, the effect of inverse of Altman's Z score, firm age and cash flow volatility on the level of cash holdings found to be significant. In case of low leveraged firms, growth opportunities, cash flow, R&D, Tangibility and profitability have positive impact on cash holdings whereas firm size and interest expenses have negative effect on cash holdings. However, dividend, net working capital, cash conversion cycle, inverse of Altman's Z score, firm age and cash flow volatility do not have significant effect on cash holdings. On comparing the effect of firms characteristics on cash holdings of high leveraged and low leveraged firms it is observed that dividend is positively associated with cash holdings in high leveraged firms and negatively associated cash holdings low leveraged firm. It means high leveraged firms paying dividend hold more cash whereas low leveraged firms paying dividend hold less cash for the reason that high leveraged firms do not want to skip dividend at any point of time to make the investors confident on financial performance and condition of the company. Net working capital is positively associated with cash holdings in high leveraged firms and negatively associated with cash holdings in low leveraged firms. It means higher level of debt induces a firm to hold more cash in relation to net working capital to hedge the risk of failure to convert the working capital to cash so as to avoid interruption in manufacturing process. R&D has positive impact on cash holdings irrespective of the level of debt because R&D driven innovations are difficult to finance through external financing due to their uncertain outcome, intangible nature and asymmetric information problems.

Conclusion

This study analyzed the effect of degree of leverage on cash holdings and the change in the effect of firm characteristics on cash holdings of high leveraged and low leveraged Indian manufacturing firms over a period from 2005 to 2017. The result found that there is a significant difference in cash holdings of high leveraged and low leveraged firms and high leveraged firms hold more cash to avoid cost of bankruptcy and high cost of external financing. The study also found that there is change in the effect of firm characteristics on cash holdings both in terms of degree and direction. This study is confined to Indian manufacturing firms only and few firm characteristics such as firm size, growth opportunities, leverage, cash flows, dividend, net working capital, R&D expenditure, assets tangibility, profitability, interest expenses, cash conversion cycle, inverse of Altman's Z score, firm age and cash flow volatility have been considered to analyze their effect on cash holdings. The findings of this study are useful for corporate boards, managers, investors and rating agencies while taking decisions. The study has further scope to extend the work to other concerns and to study other firm characteristics which may have effect on cash holdings.

REFERENCES

Afza, T., & Adnan, S. M. (2007, August). Determinants of corporate cash holdings: A case study of Pakistan. In Proceedings of Singapore Economic Review Conference (SERC) (Vol. 2007).

Ali, A., & Yousaf, S. (2013). Determinants of cash holding in German market. *Journal of Business and Management*, *12*(6), 28-34.

Almeida, H., Campello, M., & Weisbach, M. S. (2004). The cash flow sensitivity of cash. *The Journal of Finance, 59*(4), 1777-1804.

Al-Najjar, B. (2013). The financial determinants of corporate cash holdings: Evidence from some emerging markets. *International Business Review*, *22*(1), 77-88.

Altman, E. I. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *The Journal of Finance*, *23*(4), 589-609.

Anand, L., Varaiya, N. P., & Thenmozhi, M. (2012). Corporate governance and Firm's cash holdings: Evidence from India. http://ssrn.com/abstract=2258266.

Anjum, S., & Malik, Q. A. (2013). Determinants of corporate liquidity-An analysis of cash holdings. *Journal of Business and Management*, *7*(2), 94-100.

Bates, T. W., Kahle, K. M., & Stulz, R. M. (2009). Why do US firms hold so much more cash than they used to? *The Journal of Finance*, *64*(5), 1985-2021.

Bhat, R., & Bachhawat, S. (2005). Cash and cash-equivalent holdings of companies: does the number of block-shareholders matter? *Economic and Political Weekly*, 4785-4788.

Campbell, T., & Brendsel, L. (1977). The impact of compensating balance requirements on the cash balances of manufacturing corporations: An empirical study. *The Journal of Finance, 32*(1), 31-40.

Campello, M., Giambona, E., Graham, J. R., & Harvey, C. R. (2011). Liquidity management and corporate investment during a financial crisis. *The Review of Financial Studies*, *24*(6), 1944-1979.

Chauhan, Y., Pathak, R., & Kumar, S. (2018). Do bank-appointed directors affect corporate cash holding? *International Review of Economics & Finance*, *53*, 39-56.

Chua, S. H. (2012). *Cash holdings, Capital structure and Financial flexibility* (Doctoral dissertation, University of Nottingham).

Denis, D. J., & Sibilkov, V. (2009). Financial constraints, investment, and the value of cash holdings. *The Review of Financial Studies, 23*(1), 247-269.

Dittmar, A., Mahrt-Smith, J., & Servaes, H. (2003). International corporate governance and corporate cash holdings. *Journal of Financial and Quantitative Analysis*, *38*(1), 111-133.

Drobetz, W., & Grüninger, M. C. (2006). *Corporate cash holdings: Evidence from Switzerland* (No. 07/06). WWZ Forschungsbericht.

Duchin, R. (2010). Cash holdings and corporate diversification. *The Journal of Finance*, *65*(3), 955-992.

Ferreira, M. A., & Vilela, A. S. (2004). Why do firms hold cash? Evidence from EMU countries. *European Financial Management*, *10*(2), 295-319.

Foley, C. F., Hartzell, J. C., Titman, S., & Twite, G. (2007). Why do firms hold so much cash? A tax-based explanation. *Journal of Financial Economics*, *86*(3), 579-607.

Gao, H., Harford, J., & Li, K. (2013). Determinants of corporate cash policy: Insights from private firms. *Journal of Financial Economics*, *109*(3), 623-639.

Gautam, V., Singh, A., & Gaurav, S. (2014). Cash holdings and finance constraints in Indian manufacturing firms. *Research in Applied Economics*, *6*(3), 56-75.

Gill, A., & Shah, C. (2012). Determinants of corporate cash holdings: Evidence from Canada. *International Journal of Economics and Finance*, *4*(1), 70-79.

Gogineni, S., Linn, S., & Yadav, P. (2012). Evidence on the determinants of cash holdings by private and public companies. Available at SSRN: https://ssrn.com/abstract=2022689 or http://dx.doi.org/10.2139/ssrn.2022689

Guney, Y., Ozkan, A., & Ozkan, N. (2007). International evidence on the non-linear impact of leverage on corporate cash holdings. *Journal of Multinational Financial Management*, *17*(1), 45-60.

Harford, J. (1999). Corporate cash reserves and acquisitions. *The Journal of Finance*, *54*(6), 1969-1997.

He, Z., & Wintoki, M. B. (2016). The cost of innovation: R&D and high cash holdings in US firms. *Journal of Corporate Finance*, *41*, 280-303.

Hu, Y., Li, Y., & Zeng, J. (2018). Stock liquidity and corporate cash holdings. *Finance Research Letters*.

Islam, S. (2012). Manufacturing firms' cash holding determinants: Evidence from Bangladesh. *International Journal of Business and Management*, *7*(6), 172-184.

John, T. A. (1993). Accounting measures of corporate liquidity, leverage, and costs of financial distress. *Financial Management*, 91-100.

Keynes, J.M. (1936). The General Theory of Employment, Interest and Money. In the 1973 edition of the *Collected Writings of John Maynard Keynes*, Vol. 7. Edited by Donald Moggridge, London: Macmillan for the Royal Economic Society.

Kim, C. S., Mauer, D. C., & Sherman, A. E. (1998). The determinants of corporate liquidity: Theory and evidence. *Journal of Financial and Quantitative Analysis, 33*(3), 335-359.

Lins, K. V., Servaes, H., & Tufano, P. (2010). What drives corporate liquidity? An international survey of cash holdings and lines of credit. *Journal of Financial Economics*, *98*(1), 160-176.

Maheshwari, Y., & Rao, K. V. (2017). Determinants of Corporate Cash Holdings. *Global Business Review*, *18*(2), 416-427.

Megginson, W. L., Ullah, B., & Wei, Z. (2014). State ownership, soft-budget constraints, and cash holdings: Evidence from China's privatized firms. *Journal of Banking & Finance*, *48*, 276-291.

Mesfin, E. A. (2016). The Factors Affecting Cash Holding Decisions Of Manufacturing Share Companies In Ethiopia. *International Journal of Advanced Research in Management and Social Sciences, 5*(3), 48-67.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics, 13*(2), 187-221.

Nadiri, M. I. (1969). The determinants of real cash balances in the US total manufacturing sector. *The Quarterly Journal of Economics, 83*(2), 173-196.

Nguyen, P. (2005). *How Sensitive are Japanese Firms to Earnings Volatility? Evidence from Cash Holdings*. Working paper, University of New South Wales.

Nyborg, K. G., & Wang, Z. (2014). Stock liquidity and corporate cash holdings: Feedback and the Cash as Ammunition Hypothesis.

Ogundipe, L. O., Ogundipe, S. E., & Ajao, S. K. (2012). Cash holding and firm characteristics: Evidence from Nigerian emerging market. *Journal of Business Economics and Finance*, *1*(2), 45-58.

Opler, T., Pinkowitz, L., Stulz, R., & Williamson, R. (1999). The determinants and implications of corporate cash holdings. *Journal of Financial Economics, 52*(1), 3-46.

Ozkan, A., & Ozkan, N. (2004). Corporate cash holdings: An empirical investigation of UK companies. *Journal of Banking & Finance*, *28*(9), 2103-2134.

Pandey, I. M. (1995). *Essentials of Financial Management, 4th Edtion*. Vikas publishing house.

Paskelian, O. G., Bell, S., & Nguyen, C. V. (2010). Corporate governance and cash holdings: A comparative analysis of Chinese and Indian firms. *The International Journal of Business and Finance Research, 4*(4), 59-73.

Pinkowitz, L., & Williamson, R. (2001). Bank power and cash holdings: Evidence from Japan. *The Review of Financial Studies*, *14*(4), 1059-1082.

Saddour, K. (2006). *The determinants and the value of cash holdings: Evidence from French firms* (No. halshs-00151916).

Shah, A. (2011). The corporate cash holdings: Determinants and implications. *African Journal of Business Management, 5*(34), 12939-12950.

Song, K. R., & Lee, Y. (2012). Long-term effects of a financial crisis: Evidence from cash holdings of East Asian firms. *Journal of Financial and Quantitative Analysis*, *47*(3), 617-641.

Song, K. R., & Lee, Y. (2012). Long-term effects of a financial crisis: Evidence from cash holdings of East Asian firms. *Journal of Financial and Quantitative Analysis, 47*(3), 617-641.

Stein, J. C. (1997). Internal capital markets and the competition for corporate resources. *The Journal of Finance*, *52*(1), 111-133.

Stone, A. L., & Gup, B. E. (2015). Do Business Cycles Influence Corporate Cash Holdings? Electronic copy available at: http://ssrn.com/abstract=2594332

Subramaniam, V., Tang, T. T., Yue, H., & Zhou, X. (2011). Firm structure and corporate cash holdings. *Journal of Corporate Finance*, *17*(3), 759-773.

Sun, Q., Yung, K., & Rahman, H. (2012). Earnings quality and corporate cash holdings. *Accounting & Finance*, *52*(2), 543-571.

Titman, S., & Wessels, R. (1988). The determinants of capital structure choice. *The Journal of Finance*, *43*(1), 1-19.

Tobin, J. (1958). Liquidity preference as behavior towards risk. *The Review of Economic Studies*, *25*(2), 65-86.

Tong, Z. (2011). Firm diversification and the value of corporate cash holdings. *Journal of Corporate Finance*, *17*(3), 741-758.

Wang, Y., Ji, Y., Chen, X., & Song, C. (2014). Inflation, operating cycle, and cash holdings. *China Journal of Accounting Research, 7*(4), 263-276.

Wang, Y., Ji, Y., Chen, X., & Song, C. (2014). Inflation, operating cycle, and cash holdings. *China Journal of Accounting Research*, *7*(4), 263-276.

Statement about Ownership and Other Particulars of the Journal –
THE INDIAN JOURNAL OF COMMERCE

Form – 5
(Rule 8)

1.	*Printer's Name* *Nationality* *Address*	: : :	The Indian Commerce Association Indian
2.	*Place of Publication*	:	New Delhi
3.	*Periodicity of Publication*	:	Quarterly
4.	*Publisher's Name* *Nationality* *Address*	:	The Indian Commerce Association Indian
5.	*Chief Editor's Name* *Nationality* *Address*	:	Prof. Nawal Kishor Indian The Indian Commerce Association
6.	*Name and address of the individuals who own the newspaper and Partners or share-holders holding more than one percent of the total capital*	:	The Indian Commerce Association
7.	*Printed at*	:	Kalinga Institute of Industrial Technology (KIIT), Deemed to be University, Bhubneswar-751024 Orissa

I, Nawal Kishor, hereby declare that the particulars given are true to the best of my knowledge and belief.

(Sd/-)
Prof. Nawal Kishor
(Signature of the Publisher)

72st Annual Conference of ICA (December 22-24, 2019)
Kalinga Institute of Industrial Technology (KIIT), Deemed to be University
Bhubaneswar, Odisha

President	**Prof. H. Venkasteshwarlu** (Retd.), Department of Commerce, Osmania University Hyderabad-500 007, Andhra Pradesh.
Immediate Past President	**Prof. Subhash Garg,** Minister of State Technical Education, Government of Rajasthan.
Executive Vice President	**Prof. Manas Pandey,** VBS University, Jaunpur (U.P.),
Secretary	**Prof. Narendra Kumar,** M.D. University, Rohtak-124 001 (Haryana),
Joint Secretary	**Dr. Pushpendra Misra,** DSMNR University, Lucknow (U.P.)
Managing Editor	**Prof. Nawal Kishor,** SOMS, IGNOU, Maidan Garhi, New Delhi–110068
Conference Secretary	**Prof. Sasmita Samanta,** Pro-Vice Chancellor, KIIT Deemed to be University, Bhubaneswar, Odissa.

Topic Seminar	**Chairperson**	**Co-chairperson**
Global Business: Emerging Issues and Challenges	**Dr. G. Tulsi Rao** Professor & Principal, College of Arts, Commerce Law & Education, B.R. Ambedkar University, Srikakulam Eteherla, A.P. 9440112599 sujasrisri@hotmail.com	**Dr. Sangeeta N. Pawar** Professor, Department of Commerce Mumbai University, Mumbai 9869350773 sangeetanp@gmail.com
Technical Session I **Resurgence of Deprived Society: Re-invention and Resilience**	**Dr. Maheshwar Sahu** Professor, Department of Commerce, Utkal University Bhubaneshwar, Odisha 9437282422 maheshwarsahu@gmail.com	**Dr. B.C.M. Patnaik** Associate Professor School of Management, KIIT Deemed to be University, Bhubaneswar, Odisha 9668224322 bcmpatnaik@ksom.ac.in
II **Skill India and Employment : A Road Map Ahead**	**Dr. R.K. Singh** Professor, Head and Dean Department of Commerce Delhi School of Economics University of Delhi, Delhi 9910970870 rkvisen2@gmail.com	**Dr. Ravi Akula** Chairman, Board of Studies in Commerce, Mahatma Gandhi University, Nalgonda, Telangana 9948361250 akularavi26@gmail.com
III **Non Performing Assets (NPA): Diagnostics and Management**	**Dr. Prashanta Athma** Professor and head, Department of Commerce, Osmania University, Hyderabad 9849517133 prashantaathma@gmail.com	**Dr. Rambabu Gopisetti** Head & Chairman BOS Department of Commerce Telangana University, Nizamabad 8555010272, 9848571292 ramcommerce@rediffmail.com
IV **Social Media: Interface between Policy Makers & Common Man**	**Dr. Amrit Pal Singh** Professor, Deptt. of Commerce Gauhati University, Gauhati 9435101416 spamrit@yahoo.com	**Dr. Jeevan Jyoti** Assistant Professor, Deptt. of Commerce, Jammu University (J&K) 9469170900 jjyotigupta64@gmail.com
Manubhai M Shah Memorial Research Award Session: Empirical Researches in the field of Accounting — Science and Art	**Dr. Balwinder Singh** Professor University School of Financial Studies, Guru Nanak Dev University, Amritsar, Punjab 9417272232 bksaini@gmail.com	**Dr. Anurag Aggarwal** Associate Profesor & Head S.S. (PC) College Shahjahanpur (U.P.) 9415725333 aagarwal160@gmail.com
Professor Samiuddin Memorial ICA Research Scholars' Award	**Dr. R.K. Shukla** Professor School of Commerce Devi Ahilya Viswavidyalaya, Indore 9977466514 dr_ravindrashukla@rediffmail.com	**Dr Sanjiv Kumar S. Agarwal** Associate Professor & Head, Deptt. of Commerce, Toshniwal Arts, Commerce & Science College, Hingoli, Dist Nanded, Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra 9423064250, agrawalsanjiv22@gmail.com

Authors should mail the research papers to the respective chairperson by 31st November, 2019 alongwith the self declaration certificate regarding the plagiarism and originality.

Regd. No. 4973/60

Rs. 20/-

Printed by:

KIIT Deemed to be University, Bhubaneswar, Odisha, India
On behalf of Indian Commerce Association