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

THE INDIAN JOURNAL OF COMMERCE

Quarterly Publication of the Indian Commerce Association

Vol. 72 No. 2 April-June, 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. 2** **April-June, 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. 2, April-June, 2019

Corporate Social Spending in India

TAGAR L. KHAN & KALPATARU BANDOPADHYAY

Abstract : *The paper examines the corporate social spending of Indian corporate in the light of the new regime of Companies Act 2013. The objective of the paper is to analyze the magnitude of corporate social spending of the Indian corporate over the different states and zones of India and the disparities thereof, if any. The paper also investigates the association of the corporate social spending with the consumption of goods and services by different states and of the corporate social spending with the income strength of the states. These associations help us to understand the motives of corporate social spending i.e. business motive and social motive of the corporate. Applying Gini Coefficient, the study observes high degree of disparity in spending on corporate social responsibility (CSR) over different states and different zones of India, which might partly be caused by improper guidelines of the new Companies Act regarding the spending and partly for geo-political reason. The study found moderate association between spending on CSR and goods and services consumed in different states, indicating spending of corporate on CSR towards their business motive. On the contrary, the study found significant positive relationship between spending on CSR and states' national income (expected for negative relationship) and insignificant relationship with the people living below poverty line, which raises question on the social motive of spending on CSR by Indian corporate.*

Key words: Corporate Social Responsibility (CSR), Companies Act 2013, Gini Coefficient of Inequality, Disparity

Introduction

Corporate throughout the world and their stakeholders are increasingly aware about the need of socially responsible behavior and the benefits thereof. Corporate social responsibility (CSR) creates good corporate image to the society and foster corporate sustainability. The social responsibility of business is not new in India, as the legendary businesspersons of India, like Ghanshyam Das Birla, Bhai Mohan Singh, Jamshedji Tata and many others contributed a lot towards the social

Tagar L. Khan is Professor, Department of Commerce, Vidyasagar University, Midnapore, West Bengal and Kalpataru Bandopadhyay is Professor, Department of Commerce, Vidyasagar University, Midnapore, West Bengal.

development and social welfare from their impulse of philanthropy. As regard to the modern Indian corporate, it is argued that the intense competition since globalization and economic liberalization has been occupying the centre stage in business strategies and policies, and consequently the issues of CSR took a back seat. Many authors [Bhatia and Chander (2014), Kansal et al. (2014)] observed lack of disclosure on social spending of corporate which indirectly indicate poor sense of responsibility towards corporate social spending. The study of Amaladoss & Manohar (2013) observes the companies in emerging economies in Asia including India lack inclusive and comprehensive strategy for CSR rather the corporate approach towards CSR is sometimes philanthropic and sometimes 'face-saving' in nature.

The scenario of spending towards CSR started changing due to peer pressure and awareness of consumers and citizen at large towards responsibility of corporate to society. The attitude towards CSR differs by countries. Gupta (2011) observed that developed economies obliged social responsibility of business as ethical, whereas developing economies considered CSR as a benevolent deed. Thus, there was a lack of seriousness regarding obliging CSR. Due to this fact the social responsibility of corporate received lesser attention in recent past, that led the Indian regulators to issue a mandate on CSR through the Companies Act 2013. Based on primary survey, Kansal and Joshi (2014) advocated that enforcing statutory spending for CSR was thoroughly justified.

The mandate of Companies Act 2013 applies to Indian corporate whose net worth is Rs. 500 crore or more, or a turnover of Rs. 1, 000 crore or more, or, a net profit of Rs. 5 crore or more, during any financial year. According to the mandate those corporate shall constitute a Corporate Social Responsibility Committee by the Board, and shall ensure that the company spends, in every financial year, at least 2% of the average net profits, earned during the three immediately preceding financial years on CSR. This new effort of the regulators admits formally the need of CSR and respects the relationship between the business and society. According to the National CSR Portal, 2018, the corporate spends around rupees forty eight thousand crore since the Companies Act, 2013 was operationalised. The spending in 2014-15, 2015-16 and 2016-17 are found to be Rs. 10, 066 crore, Rs. 14, 528 crore and Rs. 14, 242 crore respectively. The CSR expenditure of BSE 100 companies confirms that most of the Indian corporate are spending on CSR as prescribed by the Companies Act, 2013.

In a country like India, the amount spent on CSR may not be too satisfactory but it has a healthy increasing trend. From the macro point of view, the amount on social spending should be equitable as well. The government expenditure and private expenditure on social spending should supplement each other. In this context, several studies so far attempted to examine different aspect of CSR. With the help of Content Analysis, a large number of studies on CSR in India [e.g. Raghu (2006), Gautam & Singh (2010), Jain (2016) etc.] have examined the annual reports and other secondary data to assess the importance of CSR to the corporate and extent of CSR spending by the corporate. Mittal et al. (2008) tried to find out the impact of economic value added on CSR spending by applying regression analysis. Some studies applied factor analysis technique on the responses by primary survey to understand the factors leading to CSR spending in Indian context [Narwal (2007) etc.]. Kulkarni and Rao (2014) compared the CSR practices of India and Africa, the two resource and manpower rich countries. They studied ethical, legal, philanthropic and economic responsibilities of automobile companies. They found no significant differences in the demands of economic and philanthropic sustainability compared to ethical and legal sustainability. Laskar and Maji (2017) investigated the CSR disclosure and firm performance and they found significant positive relationship between the volume of CSR disclosure and corporate performance. Fifca et. al. (2017) made a cross country analysis of CSR practices between US and India. They found no significant difference between the corporate in US and in India regarding their degree of internationalization, size, belongingness to home country, but the CSR practices significantly varied among the corporate of two countries as regards to their age, profitability, industry belongingness and degree of compliance with GRI guidelines. Sarkar and Sarkar (2015), Biswas et al. (2016) observed that corporate spending through CSR could foster inclusive growth. However, they did not make any attempt to find out whether there is any regional disparity in CSR spending or whether backward regions or zones are receiving higher allocation of CSR spending of Indian Companies or not. We are unable to find any study that tries to seek the regional (or zonal) disparity in CSR spending. Had there been huge disparity in zonal spending, the very purpose of CSR may be under question.

CSR spending should have social motive and may not necessarily be linked up with profit motive. In this context, the objective of the study is to analyze the nature of CSR spending to ascertain whether it follows the philosophy of social motive or not. Further, we tend to find out whether logic behind CSR spending is driven by profit motive or it is driven by social motive of the corporate.

Data and Methodology

In this study, we have collected macro data on CSR spending by the Indian corporate on different zones and different states of India over the period of 2014-15 to 2016-17 from the website of Ministry of Corporate Affairs. We have ranked the states according to the CSR spending after normalizing the spending

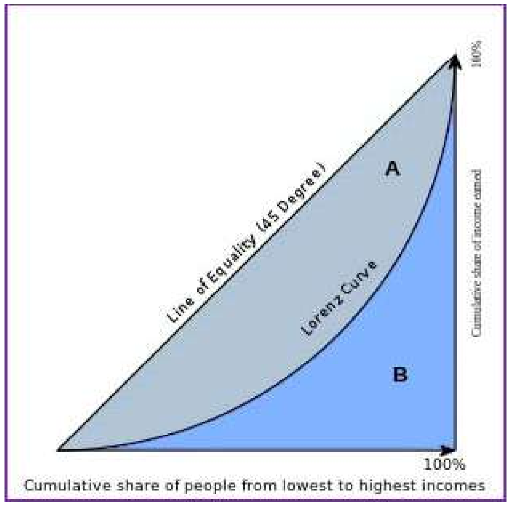


Figure 1: Lorentz Curve and Gini Coefficient

with the population size of respective states. We have measured the disparity of CSR spending in different states as well as zones by calculating Gini coefficient. Gini coefficient (also known as Gini Index), attributable to Gini (1912), is a statistical measure of economic inequality among the different countries, states etc. A Gini coefficient lies between 0 and 1, where 0 indicates for perfect equality in the distribution of any economic parameter and 1 indicates maximum inequality in the distribution of the parameter. The Gini coefficient usually defined mathematically based on the Lorentz curve. Theoretically, Gini coefficient is the ratio of area that lies between the line of equality and the Lorentz curve (denoted by A) over the total area under the equality curve (area of A + B). Thus, the Gini coefficient G = A / (A + B).

For a population with values y_i, i = 1 to n, that are indexed in non-decreasing order ($y_i \leq y_{i+1}$), the Gini Index (GI) is measured as:

$$GI = \frac{1}{n}\left(n + 1 - 2\frac{\sum (n+1-i)yi}{\sum yi} \right) \quad (i = 1,2,\ldots n)$$

Secondly, the relationship of CSR spending in different states with the sales volume in different states is estimated in order to understand whether the motive of corporate on its CSR spending is associated with their business interests. The state-wise GST collected has been considered as the proxy for state-wise sales by corporate. Further, to assess the equity in spending from macro viewpoint, the relationship between CSR spending in different states with the states' per capita income and percentage of people living below poverty line has been estimated. The regression equation would examine whether the motive of corporate on its CSR spending is associated with the social interests and is instrumental in regional development.

$$yi = a + bx_i + e_i \quad \text{..........(i)}$$

$$yj = c + dx_j + fx_k + e_j \quad \text{..........(ii)}$$

a, b, c, d are constant, e_i, e_j are error terms; x_i = state-wise GST collected; x_j = state-wise per capita income; x_k = % of people below poverty level.

Analysis and Findings

First we have examined the zonal spending on CSR, dividing the whole Indian into six zones, viz., Northern Zone, North-Eastern Zone, Central Zone, Eastern zone, Southern Zone, and West Zone. The spending on different zones on per capita basis over the period 2014-15 to 2016-17 along with the computed Gini Index on disparity is presented in Table-1.

From Table-1 we observe that the West Zone covering the states of Rajasthan , Gujarat, Goa and Maharashtra enjoyed maximum benefits of CSR spending on per capita basis. The Northern Zone covering Jammu and Kashmir, Himachal Pradesh, Punjab, Uttarakhand , Uttar Pradesh and Haryana has enjoyed least amount of CSR benefit. The spending on North-Eastern Zone is moderate. However, when we consider the number of states covered by the North-Eastern Zone (8 in number) and the infrastructural weakness of the zone, the spending is not enough and it requires more support from the corporate. Thus, we observe a moderate degree of disparity which is also confirmed by the computed Gini Index.

Table-1: Zone-wise Per capita CSR spending and the measure of disparity

Zone	States	No. of States	2014-15	2015-16	2016-17
Northern Zone	Jammu and Kashmir, Himachal Pradesh, Punjab, Uttarakhand , Uttar Pradesh and Haryana.	6	18.50	38.36	31.17
North-Eastern Zone	Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim	8	34.32	40.85	69.94
Central Zone	Chhattisgarh, Madhya Pradesh	2	30.89	42.92	36.93
Eastern Zone	Bihar, Orissa, Jharkhand, and West Bengal.	4	20.86	46.56	28.72
Southern Zone	Tamil Nadu, Kerala, Telangana, Andhra Pradesh & Karnataka	5	54.80	115.86	89.78
West Zone	Rajasthan , Gujarat, Goa and Maharashtra	4	85.91	127.52	138.20
	Gini Index		0.3001	0.2728	0.3193

**Spending is measured in INR after normalization by the population size of respective Zones.*

The Gini Index shows the degree of disparity on CSR spending in different zones, 0.3001, 0.2728 and 0.3193 in the years 2014-15, 2015-16 and 2016-17 respectively. We also observe that the value of Gini Index has increased over time (from 0.3001 in the year 2014-15 to 0.3193 in the year 2016-17) which documents the increase of the degree of disparity among the different zones that is adverse to our expectation. Next we have considered the State-wise CSR spending in India over the period of 2014-15 to 2016-17 on per capita basis, spending disparity and the positions of different states on such spending which are presented in Table-2.

From Table-2 it is clearly observed that the per-capita spending on CSR has been increased over the period and in 2016-17 the spending increased by 41.48% compared to 2014-15. But if we look into the distribution of such spending over the different states, we observe significant disparities among the states as regards to CSR spending. The disparities as measured by Gini Coefficient resulted 0.4680, 0.4694 and 0.4747 respectively for the years 2014-15, 2015-16 and 2016-17. The Gini Coefficient for the full period spending is found to be 0.4438, which clearly documents for the disparity on CSR spending and a non decreasing trend. The lion share of spending has grasped by the states namely Goa, Maharashtra, Andhra Pradesh, Haryana (Top four enjoyers of benefits). On the other hand, the North Eastern States, namely, Tripura, Nagaland,

Table-2: State-wise per capita CSR spending and the measure of disparities

State	2014-15		2015-16		2016-17		Over Period	
	Spending*	Rank	Spending*	Rank	Spending*	Rank	Spending*	Rank
Andhra Pradesh	83.88	3	251.48	1	147.81	4	483.17	3
Arunachal Pradesh	79.85	4	10.70	25	170.76	3	261.32	8
Assam	43.24	13	53.73	15	86.26	9	183.23	12
Bihar	3.53	29	10.47	26	9.09	26	23.10	26
Chhattisgarh	63.16	9	93.16	7	31.46	19	187.78	11
Goa	185.98	1	209.44	2	239.76	1	635.17	1
Gujarat	51.91	11	92.60	8	129.15	7	273.66	7
Haryana	73.92	7	144.89	5	136.69	6	355.50	4
Himachal Pradesh	15.94	22	76.26	11	23.89	24	116.09	17

Contd...

Contd...

Jammu and Kashmir	34.82	14	82.10	10	32.71	18	149.64	15
Jharkhand	24.13	16	35.85	18	28.71	21	88.68	20
Karnataka	66.00	8	127.41	6	137.98	5	331.39	5
Kerala	20.44	18	43.09	17	35.20	17	98.73	18
Madhya Pradesh	19.54	21	25.24	20	38.85	16	83.64	21
Maharashtra	128.67	2	179.14	3	197.76	2	505.56	2
Manipur	8.96	25	23.04	22	43.02	15	75.03	22
Meghalaya	11.91	23	18.96	24	25.44	22	56.31	24
Mizoram	9.44	24	9.81	27	0.73	29	19.98	27
Nagaland	5.60	27	4.85	28	4.65	27	15.10	28
Odisha	60.12	10	147.54	4	74.37	11	282.03	6
Punjab	20.07	19	24.92	21	24.25	23	69.24	23
Rajasthan	43.68	12	71.98	13	46.47	14	162.13	14
Sikkim	19.58	20	31.10	19	79.98	10	130.66	16
Tamil Nadu	74.80	5	85.35	9	65.23	12	225.38	10
Telangana	28.89	15	71.98	12	62.70	13	163.58	13
Tripura	3.62	28	4.00	29	3.41	28	11.03	29
Uttar Pradesh	7.47	26	20.93	23	15.69	25	44.10	25
Uttarakhand	73.93	6	71.58	14	93.55	8	239.06	9
West Bengal	21.33	17	45.07	16	30.07	20	96.47	19
Total Spending	83.422	--	120.40	--	118.03	--	321.86	—
Gini Index	0.4680	--	0.4694	--	0.4747	--	0.4438	--

*Spending is measure in INR after normalization by the population size of respective States.

Mizoram, Meghalaya, Manipur suffered to reap the benefits of such CSR spending (among the top losers). These states jointly enjoyed very negligible amount (in absolute value), only about 0.01% of total CSR spending over the period of study and the data also neither exhibits any improvements on such CSR spending for these North Eastern States. Thus, the regulators as well as the government should seriously think into the matter if they want to develop the nation as a whole and want to fulfill its mission of equity, justice and inclusive growth.

On examination of CSR spending of BSE 100 companies over the period 2014-15 to 2016-17, we found three categories of spending; some companies significantly overspent on CSR than their law requirement, some had under spent so and some had only fulfilled the target expenditure of 2% of the average net profits of last thee financial years. Thus, though the Companies Act directs about 2% spending, the actual spending on CSR differs.

Table-3: State-wise per capita GST, number of people BPL and per capita CSR spending

States	CGST	IGST	SGST	Total GST*	GST per Capita	Income Per Capita **	No of People BPL	CSR Spending #
Andhra Pradesh	1704	2819	1704	6227	1260.86	93699	0.227179	483.17
Arunachal Pradesh	13	11	13	37	267.61	103633	0.047935	261.32
Assam	616	906	616	2138	685.93	54618	0.996793	183.23
Bihar	594	307	594	1495	144.02	31380	3.502368	23.10
Chhattisgarh	915	1818	915	3648	1428.34	78001	1.01982	187.78
Goa	304	699	304	1307	8966.04	242745	0.00742	635.17
Gujarat	5464	9020	5464	19948	3303.54	124678	1.00418	273.66
Haryana	2890	10878	2890	16658	6570.41	148485	0.28294	355.50
Himachal Pradesh	320	2074	320	2714	3953.62	124500	0.055329	116.09
Jammu and Kashmir	251	410	251	912	726.76	62857	0.129881	149.64
Jharkhand	849	2929	849	4627	1403.56	56737	1.218432	88.68
Karnataka	5197	8520	5197	18914	3094.03	132880	1.278243	331.39
Kerala	1827	964	1827	4618	1383.15	139195	0.235383	98.73
Madhya Pradesh	1515	2275	1515	5305	730.74	56182	2.297713	83.64
Maharashtra	13654	17183	13654	44491	3959.23	134081	1.949671	505.56
Manipur	19	4	19	42	154.31	52436	0.100406	75.03
Meghalaya	43	149	43	235	792.85	68202	0.035183	56.31
Mizoram	11	3	11	25	229.14	85659	0.022769	19.98

Contd...

Contd...

Nagaland	13	18	13	44	222.15	78526	0.037394	15.10
Odisha	1280	2029	1280	4589	1093.99	64869	1.367064	282.03
Punjab	1100	2155	1100	4355	1571.96	114561	0.228837	69.24
Rajasthan	2112	3419	2112	7643	1113.80	76881	1.009415	162.13
Sikkim	30	514	30	574	9445.64	210394	0.004977	130.66
Tamil Nadu	5739	7605	5739	19083	2645.31	130197	0.813727	225.38
Telangana	2171	3451	2171	7793	2208.48	125832	0.227179	163.58
Tripura	59	12	59	130	354.12	71666	0.051578	11.03
Utar Pradesh	3632	5389	3632	12653	634.93	43861	5.864854	44.10
Uttarakhand	588	4245	588	5421	5358.44	134784	0.113915	239.06
West Bengal	2869	2894	2869	8632	944.96	78903	1.825128	96.47
Grand Total	58955	100012	58955	217922	64647.9	2841539	25.955713	5366.76

#Spending is measured in INR after normalization by the pop. size of respective states over 2015-2017.

* Figures of GST are in INR crore till Nov. 2017 [source: https://www.indiatoday.in] ** Per capita income (Rs) is of 2014-15 at current price of 31-3-2017 [source: Press Information, Ministry of Statistics &program implementation. http://www.pib.nic.in]

We have examined the motive of spending on CSR from two angles, *viz.* business motive and social motive. Business motive is addressed by the amount of goods and services sold in different states, surrogated by GST collection from different states, and thereby amount of spending on CSR on the basis of sales, and the social motive is addressed by CSR spending on the basis of social need of the people of the states that be surrogated by the income strength of the states and the number of people living in the state below poverty line (BPL). Where income of the state is low or more people living under poverty line, the people of the state need more help from the corporate for their development and growth. In this backdrop, we have estimated the relationship between CSR pending and GST collected in one hand and the relationship between CSR spending and state per capita national income and number people BPL on the other, applying Pearson's product moment correlation coefficient. We have also measured the impact applying linear regression and the results are presented in Table-3, Table-4 and Table-5.

Table-4: Correlation between GST, people BPL, SNI and CSR spending of states

		GST_P_C	PEO_BPL	CSR_SPEND	INC_P_C
GST_P_C	Pearson Correlation	1	-.246	.562**	.893**
	Sig. (2-tailed)		.199	.002	.000
	N	29	29	29	29
PEO_BPL	Pearson Correlation	-.246	1	-.147	-.425*
	Sig. (2-tailed)	.199		.447	.022
	N	29	29	29	29
CSR_SPEND	Pearson Correlation	.562**	-.147	1	.596**
	Sig. (2-tailed)	.002	.447		.001
	N	29	29	29	29
INC_P_C	Pearson Correlation	.893**	-.425*	.596**	1
	Sig. (2-tailed)	.000	.022	.001	
	N	29	29	29	29

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Table-5: Regression results

Predictor variable	r	r 2	Stnd. beta	t-vlaue	Sig.
GST Per_Cap	.562**	.316	.562	3.529	.002
Number BPL	.147	.022	-.147	-.772	.447
Income Per_Cap	.596**	.355	.596	3.858	.001

Dependent variable: CSR Spending

Table 3 shows that the GST collection on per capita basis is the maximum from Sikkim (Rs. 9445.637crore). Least collection of GST is associated with Bihar (Rs. 144.02 crore). Per capita income of Goa is found to be maximum (Rs. 242745) and the minimum income is associated with Uttar Pradesh (Rs. 43861). The state of Goa has minimum percentage of people under poverty line, whereas Chhattisgarh has maximum percentage of people under poverty line. The table clearly shows that a social disparity exists among the different states in different dimensions. The correlation results (Table-4) shows that there is a significant relationship between per capita GST, CSR spending and per capita national income of the states. However, the relationship between numbers of people BPL and per capita GST, CSR spending are insignificant. The relationship between people BPL with the state national income obviously is found negative and significant. From the regression analysis (Table 5) it is observed that of the GST per capita and state national income only significantly explained CSR spending over the states. The number of people residing in the states below poverty line is unable to explain CSR spending for the states. Thus, the correlation and regression results confirm us about the corporate motive for spending on CSR. Such motive is more business oriented rather that social.

Conclusion

Along with economic development, the government should lead the infrastructural and social development of the country. However, the corporate sector should also supplement in line with long term planning. Thus, the provisions laid down in Company Act 2013 for mandatory spending on corporate social responsibility could ensure the active participation in the development of society. Biswas et. al. (2016), Sarkar & Sarker (2016) opines that CSR may be instrumental for inclusive growth. It is found that there is significant inequality in CSR spending among different zones and states as demonstrated by Gini's Coefficient. Further, it has also been examined the reason behind this disparity. Both the business motive and the social motives of spending CSR have been looked into. However, this study does not find any support of CSR spending to foster inclusive growth.

On the basis of our findings, we may conclude that the regulators, through the Companies Act or otherwise, should issue clear directives to the corporate for better management of their CSR spending in order to remove the disparity of such spending among different zones of the country. The corporate should extend their hand and bear their social responsibility in more efficient and significant manner and such responsibility should be directed towards fostering inclusive growth to ensure social equity.

Limitations of the Study

While considering state-wise and zone-wise CSR expenditure, and the disparities thereof, a part of CSR expenditure which is captioned as Pan India has not been considered as the expenditure is not associated with any specific state or zone, rather it is expended jointly for a number of states. Population data of different states, used for normalization purpose, is as per census 2011, for non availability of current population data.

REFERENCES

Acharya, J. & Patnaik,S. N. (2018). Corporate social responsibility in community development and sustainability: Rourkela Steel Plant, a unit of SAIL, India. *Asian Journal of Business Ethics, 7(1),53-79*

Amaladoss, M.X. & Manohar, H.L. (2013). Communicating corporate social responsibility – A case of CSR communication in emerging economies. *Corporate Social Responsibility and Environmental Management*, 20(2), 65-80

Bhatia, A. & Chander, S. (2014). Corporate social responsibility disclosure by SENSEX Companies in India. *Management and Labour Studies*, 39(1), 1-17.

Biswas, U. A., Garg, S. & Singh, A. (2016). Examining the possibility of achieving inclusive growth in India through corporate social responsibility. *Asian Journal of Business Ethics*, 5 (1&2), 61-80;

Fifka, M. S., Kühn, A. & Stiglbauer, M. (2017). "One size fits all"? Convergence in international corporate social responsibility communication-A comparative study of CSR mission statements in the United States and India. *Journal of Public Affairs*, https://doi.org/10.1002/pa.1670

Gautam, R. & Singh, A. (2010). Corporate social responsibility practices in India: A study of top 500 Companies. *Global Business Management Research*, 2(1), 41-52.

Ghosh, S. (2015). Communication of corporate social responsibility activities by private sector Companies in India: Research Findings and Insights. *Metamorphosis*, 14(2), 30-50.

Ghosh, S. (2014). A study of the participation of the private sector companies of India in corporate social responsibility activities through conjoint analysis. *Vision*, 18(2) 91–108.

Gupta, S. (2011). Consumer stakeholder view of corporate social responsibility: a comparative analysis from USA and India. *Social Responsibility Journal*, 7(3), 5-16.

Jain, R, Winner, L.H. (2016). CSR and sustainability reporting practices of top companies in India, *Corporate Communications: A International Journal,* 2(1), 36-55

Kansal, M. & Joshi, M. (2014). perceptions of investors and stockbrokers on corporate social responsibility: A stakeholder perspective from India. *Knowledge and Process Management* 21(3), 167–176.

Kansal, M., Joshi, M., & Batra, G. S. (2014). Determinants of corporate social responsibility disclosures: Evidence from India. *Advances in Accounting, Incorporating Advances in International Accounting*, 30(1), 217-229.

Kulkarni, S. & Rao, P. (2014). Comparative analysis of corporate social responsibility practices across Africa and India – An automobile industry perspective. *Procedia -Social and Behavioral Sciences*. 157, 244 – 253

Laskar, N. & Maji, S. G. (2017). Disclosure of corporate social responsibility and firm performance: evidence from India. *Asia-Pacific Journal of Management Research and Innovation*, 12(2), 1–10.

Mittal, R.K., Sinha, N. & Singh, A. (2008). An analysis of linkage between economic value added and corporate social responsibility. *Management Decision*, 46(9), 1437-1443

Narwal, M. & Singh, R. (2013). Corporate social responsibility practices in India: a comparative study of MNCs and Indian companies. *Social Responsibility Journal*, 9(3), 465 – 478.

Raghu, Raman S. (2006). Corporate social responsibility in India – A view from top. *Global Business Review*, 7(2), 313-324

Sarkar, J. & Sarkar, S. (2015). Corporate social responsibility in India-An effort to bridge the welfare gap. *Review of Market Integration*, 7(1), 1-36.

The Indian Journal of Commerce
Vol. 72, No. 2, April-June, 2019

Internet Based Corporate Reporting and Firm Value: Indian Evidence

AKASHA SANDHU

Abstract *: Based on the sample of 382 Indian firms selected from Bombay Stock Exchange (BSE) 500 Index, the study provides evidence on the relationship between internet-based disclosure and firm value. The study adds to the limited evidence in the domain of internet reporting in India. Content analysis has been used to examine internet based reporting practices. The corporate websites of the firms have been evaluated on checklist termed as Internet Disclosure Index (IDI) that encompasses both content and presentation dimensions. Regression results reveal that internet based disclosure has significant positive impact on the firm value for both the proxies i.e. Tobin's Q and Price to book ratio. The findings lend support to the viewpoint that disclosure of information on corporate websites assists in value creation.*

Keywords: Internet, disclosure, firm value, internet reporting.

Introduction

The rapidly changing needs of the society with the advent of information technology have transformed the old paradigms of information disclosure bringing changes in the routine affairs of the corporations. The firms strive to deliver a high degree of disclosure transparency to market participants in order to increase value for shareholders by adopting internet as a means of investor relations. The firms are adopting this new medium to be akin with shareholders and potential investors and simultaneously democratizing access to requisite information, thereby addressing to another important aspect of good governance which is treating all shareholders equally. Djankov et al. (2003) argued that when the firm interacts with market by delivering information that can proclaim transparency to its activities, it leads to building of firm reputation which significantly boosts firm value.

Barth et al. (2001) argued that financial information is value relevant if it has the capacity to influence decision making of the investors and its disclosure

Akasha Sandhu is Research Scholar, University School of Financial Studies, Guru Nanak Dev University, Amritsar.

has a bearing on stock price fluctuations. Bushman and Smith (2001) contended that informativeness of voluntary disclosure influences firm performance through three channels. Financial information benefits investors in identifying and evaluating investment opportunities driving value creation and thus minimizing cost of capital and associated risks. From the viewpoint of corporate governance, Rahman (2000) evidenced that increased disclosures contribute to firm reputation, thus not being only instrumental in corporate governance efficiency but also augmenting firm value. The governance role allows them disciplining the productive use of assets, lessening the expropriation risk of investors and augmenting the project selection process (Garay et al., 2013). The third channel through which disclosure has impinged on firm value is by scaling down the chances of adverse selection and reducing liquidity risk (Diamond and Verrechia, 1991). The precommitment of the firm by providing timely disclosure cuts down the investors' risk of loss from dealing with well informed investors. This enables firms to draw more funds into capital markets, thereby reducing liquidity risk.

Healy and Palepu (2001) suggested that provision of voluntary disclosure is to address information asymmetry problems between managers and shareholders. The borderless nature of internet reporting enables firms to provide information to a wide array of stakeholders, which in turn raises demand for securities, thereby reducing the cost of capital. The cost of capital being function of 'estimation risk', well informed investors are better able to evaluate the prospects of the firm. The disclosure transparency influences firm value by reducing the cost of capital, building up cash flows accrued to shareholders or both (Lang et al., 2003). The facilitation of timely and authentic disclosure mechanism by the firms assists obviation and revelation of fraud and promotes the efficiency of the stock market, resulting in higher firm value (Chao et al., 2010).

Contrary to the view that increased disclosure positively influences firm value, Hassan et al. (2009) argued that dissemination of extensive information may place the firms at a competitive disadvantage, information being relevant to competitors. In addition, the investors may misconstrue the intentions of firms for delivering information ahead of mandatory obligation. This could create uncertainty about the future outlook of the firm, thereby reducing firm value.

Considering the potential of the internet as a disclosure medium and the numerous benefits it offers in terms of cost effectiveness, dynamism and flexibility (Ettredge et al. 2002), it is imperative to evaluate whether the information is beneficial to firm, i.e. augments firm value. Thus, the present study makes an endeavour to examine the nature of the relationship that exists between internet reporting and firm value of Indian companies. The study is expected to make several positive contributions to the discipline of internet based reporting. First, it adds to the limited evidence in the domain of internet reporting in India. The scarce literature in Indian context is descriptive in nature primarily focusing on examination of extent of financial disclosure. Very few Indian studies investigating the factors accounting for variation in internet disclosure practices have been lopsided to economic determinants of CIR. The study uses a comprehensive checklist encompassing both content and presentation dimension.

Literature Review

Corporate disclosure through internet has been one of the rapidly growing domains in the accounting field. Increased stakeholders' demand for corporate transparency and governance mechanisms have attributed to this growth. One of the pertinent dimensions which have garnered the interest of researchers is the value relevance of corporate disclosure. The empirical evidence based on the predictions of finance theory argues that providing more public information increases the value of firm by reducing the cost of capital, building up cash flows accrued to shareholders or both. Prior efforts have been centered on exploring the relationship between online reporting and market based attributes like cost of capital, stock prices and abnormal returns. The literature contends that increased disclosures facilitate investors, firms and the economy as a whole with several benefits entailing minimizing agency costs, reducing the cost of capital, high stock market returns and high market liquidity. Hunter and Smith (2009) investigated whether investors value firms that try to minimize information asymmetry by adopting internet as a disclosure medium. Based on efficient market hypothesis, the findings evidenced that market performance of securities of emerging stock markets (India, Indonesia and South Africa) is higher following commercialization of internet, whereas findings failed to generate evidence for Brazil and Russia. Rahman (2010) evidenced that the extent of information disclosure on websites concocts positive influence on abnormal returns of stock prices of firms listed on Indonesia Stock Exchange. The increase in stock prices is reflection of increased online disclosures. Lai et al. (2010) examined the link between engagement of online reporting and stock prices of Taiwanese firms and revealed that shares prices of firms following internet reporting respond more quickly in contrast to the firms with lower levels of internet disclosure. The literature reveals that internet based disclosure of the firms influence investment decisions of market participants.

There are handful of studies (Mendes-Da-Silva and Alves, 2004; Elsayed, 2010; Garay et al., 2013; Hassan and Melegy 2014; Ahmed et al., 2015; Pinto and Picoto, 2016) that tried to uncover tangible economic implications of internet reporting by examining the direct evidence between firm value and internet based disclosure. Mendes-Da-Silva and Alves (2004) found significant association between firm value and voluntary disclosure of financial information on the internet for firms listed on the stock exchanges of Latin America in particular Argentina, Brazil and Mexico. The facilitation of easy access to financial information through corporate web pages assists investors in making investment decisions, thereby maximizing the firm value. In addition, the findings revealed that results are subject to change under the influence of industry type of the firm and firm size irrespective of the country of operation. Elsayed (2010) found positive association between internet reporting and firm value of Egyptian listed companies for both proxies Tobin's Q and market to book ratio. The adoption of internet as an information dissemination channel augments firm value as a result of relative benefits accrued from online disclosure. Garay et al. (2013) examined corporate web pages of firms listed in seven largest stock markets of Latin America and revealed that increased internet based disclosures lead to increase in firms' Tobin's Q and ROA. The findings suggested that self adoption of better internet based corporate disclosures enables firms to differentiate themselves from others. Hassan and Melegy (2014) examined the economic consequences of corporate voluntary disclosure in Egypt and found weak association between voluntary disclosure and firm value proxied by Tobin's Q. The findings indicated that information disseminated through annual reports and corporate websites does have some economic value and is relevant to investors when making investment decisions. Ahmed et al. (2015) examined the value relevance of internet reporting in Egyptian context and revealed that investors value the information disseminated through corporate websites when making equity pricing decisions. The examination of sub categories of internet based disclosure revealed positive association between Content dimension and User Support dimension and market value and market returns, while no association was found with regard to Presentation dimension. Pinto and Picoto (2016) analyzed the impact of internet financial reporting on firm performance measured by Tobin's Q for FTSE 100 non financial firms. The results of fuzzy set qualitative comparative analysis (fsQCA) revealed different combinations of internet reporting with risk and longevity that lead to high or low performance of the firms. The sufficiency analysis revealed three high performance configurations as long established firms disclosing content information through internet achieve high performance, long established and high risk firms regardless of internet disclosure in terms of content and presentation and low risk firms that disclose information on web along with usable presentations are high performing. Three possible configurations that direct to low performance are high risk firms with less usable presentations, newly established firms which score low on information content and presentation and long established and high risk firms which do not disseminate corporate information via internet.

A careful perusal of aforementioned studies indicates that the scare literature examining the relationship between two is centered across developed economy i.e. UK, with a few in the context of emerging economies particularly Latin America and Egypt. The present study adds to limited evidence on economic consequences of internet reporting by evaluating the relationship between internet reporting and firm value in India.

Research Methodology

Disclosure Index

Internet Disclosure Index (IDI) has been prepared based on the works of Pirchegger and Wagenhofer (1999), FASB (2000), Xiao et al. (2004), CICA and CIRI (2008), Aly et al. (2010) and Garg and Gakhar (2010) in order to examine the disclosure practices of companies on websites. The index checklist includes 136 items divided into two broad categories content items (83 items) and presentation items (53 items). The content dimension captures the type of information disclosed on the corporate website whereas presentation dimension entails how the information is presented on the website in terms of navigation, links and user support. The content items are further disaggregated into general corporate information (10 items), corporate governance information (25 items), accounting and financial information (21 items), investor relations communication (9 items), marketing information (5 items) and corporate social responsibility (CSR) and human resources (HR) disclosure information (13 items). Presentation items are divided into 3 subcategories namely navigation (10 items), usability (37 items) and timeliness (6 items).

For the present study, the scoring of items has been done on dichotomous basis, encoded as 1 for presence of item on website and 0 otherwise. Few items were scored on different bases as listed out in Table 1 based on the works of Allam and Lymer (2003), Davey and Homkajohn (2004), Despina and Demetrios (2009) and Garg and Gakhar (2010). In order to examine company's continued commitment to online disclosure, number for years for which reports are presented is considered and the companies are given an added score on 3 point scale. Financial information disclosed in both eBook and PDF format scores higher (2 points) than the disclosure made in only PDF format because the former makes better use of technology, thus increases the ease of access for users. Since the online disclosures facilitate global access to information an additional point is given to firms disclosing information in multiple languages. Further, there is an added score on 3 point scale for recent information with regard to press releases, quantum of information disclosed on CSR page and number of clicks to access financial information and press releases. The maximum obtainable score for content items, presentation items and total IDI score came out to be 89, 61 and 150 respectively.

Table 1: Scoring of items

Items	Score	Criteria
Quarterly Results (Years Count)	0	0 Years
	1	1- 5 Years
	2	6 – 10 Years
	3	11 or More Years
Annual Reports (Years Count)	0	0 Years
	1	1- 5 Years
	2	6 – 10 Years
	3	11 or More Years
Quantum of Information on CSR Page	0	No CSR Page
	1	Poor disclosure
	2	Fair disclosure
	3	Good disclosure
Annual Report Format	1	If PDF/ Ebook any one is available
	2	If Both PDF and Ebook are available
Version of website	1	English
	2	Multiple languages
Number of clicks to News/ Press Releases	1	Three or more clicks
	2	Two clicks
	3	One click
Number of clicks to financial information	1	Three or more clicks
	2	Two clicks
	3	One click
Days since update of News/ Press Releases	1	Updated more than 1 week
	2	Updated since 1 week or Less
	3	Updated on date

Sample and Data Collection

The annual reports of the firms and ACE equity database (corporate database for financial and non financial information) have been used to extract financial information of the firms. The initial sample comprises BSE-500 companies as on June, 2015. Out of 500 companies, 7 companies were dropped because it was not possible to examine the website of company on the account of merger of the companies or the web page being under construction. Banking and Financial Institutions (n= 81) and the firms with year ending other than March 2015 (n=28) do not form part of the final sample. Banks and financial institutions were excluded because they are governed by Banking Regulation Act which is different from companies that come under the purview of Companies Act, 2013.

Further, after screening out two firms with extreme values of the variables of interest, the final sample comprises 382 firms.

Variables

***Dependent Variable**:* In order to examine the value relevance of internet reporting, firm value has been taken as dependent variable. Tobin's Q and Price to Book value have been taken as proxies of firm value. Tobin's Q is measured as market value of assets divided by book value of assets where market value of assets is sum of market value of equity and difference of book value of assets and book value of equity. The measure is extensively used within the specific pale of research (Morck et al., 1988; Khanna and Palepu, 2000). The price to book value is measured as the ratio of market value of equity to book value of equity (Hassan et al., 2009).

Independent Variable: The study attempts to examine the relationship between firm value and internet based reporting practices of Indian firms. Three measures of internet reporting i.e. Content score, Presentation score and Total IDI score have been taken as independent variables. In order to measure the extent of the disclosure practices, the data has been collected manually through content analysis by visiting web pages of the corporate websites from July to November 2015. The company wise disclosure score has been computed by dividing score obtained by a particular company to maximum obtainable score.

Control Variables: Internet based disclosure not being the sole determinant of firm value, the study includes certain control variables which have been found to influence firm value to limit omitted variable bias. The study controls for firm size, leverage, liquidity, firm age, industry, sales growth and corporate governance variables board size, board independence, CEO duality and ownership structure. The benefits of economies of scale, employment of skilled managers and standardization of procedures among large firms increase the firm value (Hassan et al., 2009). On the contrary, Lang and Stulz (1994) argued that larger firms become ineffective due to loss of control by top management over the operating activities of the firm. The value of the firm decreases with increase in size and diversification. We use natural logarithm of total assets to control for firm size. Firm age captured as number of years since incorporation of the firm controls for the life cycle effect (Saravanan, 2012). Black et al. (2006) contended that long established firms have high firm value on account of goodwill and experience gained over the years, whereas Chi (2009) arguesd newly established firms outperform long established firms.

Leverage (measured as debt equity ratio) and liquidity (measured as current ratio) are also expected to influence firm value. Watts and Zimmerman (1990) argued that high risk associated with highly levered firms lowers the firm value. Financial leverage reduces the ability of the firm to invest and undertake changes in its competitive position, thereby rendering them inflexible to combat with market fluctuations (Chi, 2009). Firm profitability is considered as another pertinent driver of value creation. The profitable firms are more likely to trade with premium in comparison to less profitable firms, thus profitability of the firm is likely to exert positive influence on the firm value (Hassan and Melegy, 2004). To account for this, ROA has been used as a control variable. We include sales growth as control variable as the firm value depends on growth opportunities of the firm (Ramezani et al., 2002). The relative increase in sales from the previous year is employed as proxy for growth opportunities. We also control for industry effects by including industry dummies. The sample companies are classified into 16 industrial groups based on SIC 2007 classification. Table 2 presents the number and percentage of the companies within each industry.

Table 2: Distribution of companies according to industry type

Industry Type	Symbol used	SIC Code	Frequency	Percent
Mining	Mining	5-7	19	3.9
Food and Beverages	Food	10-12	28	5.7
Textiles	Textiles	13,14	14	2.8
Chemicals	Chemicals	20	41	8.3
Pharmaceuticals	Pharma	21	34	6.9
Rubber, Plastics, Wood & Leather Products	Rubber	15,16,22	16	3.2
Metals and Non Metals	Metals	23-25	51	10.3
Electronics & Electrical Equipments	Electronics	26,27	28	5.7
Machinery and Equipments	Machinery	28	19	3.9
Transport Equipments	Vehicles	29,30	18	3.7
Electricity, Gas and Power	Electricity	35	24	4.9
Construction	Construction	41,42	38	7.7
Transportation and Storage	Transport	49-53	12	2.4
Accommodation and Other Related Services	Accom	55,56	16	3.2
Information and Communication	Info	58-63	54	11.0
Banks and Financial Institutions	Banks	64,66	81	16.4
Total			493	100.0

Besides these corporate attributes, the literature contends association between board characteristics and firm value (Goodstein et al., 1994; Yermack, 1996; Eisenberg et al., 1998; Cheng, 2008). Nguyen et al. (2016) advocate detrimental impact of board size on firm value as a result of poor monitoring and ineffective decision making. Larger boards suffer from the problems of group cohesion and higher level of conflicts (Lipton and Lorsch, 1992). The lack of diligence in large boards raises the monitoring costs, thereby resulting in agency issues. Independent directors ensure effective monitoring, thereby enhancing the firm value. Board size (measured by number of directors on the board) and board independence (measured as proportion of independent directors on the board) are included as control variables. CEO role duality exerts negative influence on firm value (Carter et al., 2003). Agency theory advocates that the unification of roles of CEO and chairman has negative influence on firm value because of limitations of CEO in taking decisions favoring the interests of shareholders (Jensen and Meckling, 1976). Ownership structure is also expected to influence firm value (Balasubramanian et al., 2010; Kumar and Singh, 2013). Promoter ownership (percentage of shares held by promoters) and institutional ownership (percentage of shares held by institutions) are included as control variables. Table 3 provides summary of the variables used in the study.

Table 3: Variable definition

Abbreviated Name	Variable	Definition
Dependent variables		
Tobin Q	Tobin's Q	Market value of assets divided by book value of assets (where Market value of assets is Book value of assets- book value of equity + market value of equity)
Price_BV	Price to book value	Market value to book value of equity
Independent variables		
Content	Content score	Total score of content items.
Format	Presentation Score	Total score of presentation items
Total	Total score	Total score of all IDI items
Control variables (Firm specific characteristics)		
Assets	Firm size	Natural logarithm of total assets
Age	Firm age	Number of years since the incorporation of the firm
Lev	Leverage	Debt-equity ratio

Contd...

Contd...

Liq	Liquidity	Current ratio
Roa	Profitability	Return on assets
Growth	Sales growth	Increase in total sales divided by total sales in the previous year
Industry	Industry type	Dummy variable where 1 is assigned if the company belongs to particular industry based on SIC 2007 classification and 0 otherwise.
Control variables (Board Related)		
Board_size	Board size	The total number of directors on the board
Pindir	Board independence	Proportion of independent directors on the board
Ceo_dual	CEO Duality	Dichotomous variable 1 is assigned if CEO is chairman of the company and 0 otherwise.
Control Variables (Ownership related)		
Promoter	Promoter Ownership	Percentage of shares held by promoters
Inst	Institutional Ownership	Percentage of shares held by institutions

Model Development

In order to examine the nature of relationship between firm value and internet based reporting, the following models have been tested:

- ***Tobin Q*** *= α + β1*Total Score+ β2*Firm size + β3*Firm age + β4*Leverage + β5*Liquidity + β6*Profitability + β7*Sales growth + β8*Industry + β9*Board size + β10*Board independence + β11*CEO duality + β12*Promoter ownership + β13*Institutional ownership + £*
- ***Price_BV*** *= α + β1*Total Score+ β2*Firm size + β3*Firm age + β4*Leverage + β5*Liquidity + β6*Profitability + β7*Sales growth + β8*Industry + β9*Board size + β10*Board independence + β11*CEO duality + β12*Promoter ownership + β13*Institutional ownership + £*

Results and Discussions

Regression analysis has been used to examine the relationship between internet reporting and firm value. The models have been tested for assumptions. There is no issue of multicollinearity as all the VIF values are less than 10. However, there is issue of heteroscedasticity. To account for this, White heteroscedasticity consistent standard errors and covariance have been used. Table 4 reports regression results. Model 1 presents results for relationship between Total IDI score and firm value using Tobin's Q as dependent variable. The investigation of link between Total IDI score and firm value inhibits in drawing conclusions regarding which measure of internet reporting is considered useful while decision making. As a consequence, two dimensions of IDI Content and Presentation dimension have been separately analyzed to understand users' perceptions in context of worth of corporate internet disclosure. Model 2 and Model 3 presents results for relationship between Content score and Presentation score respectively with firm value using Tobin's Q as dependent variable. As a robustness check for results, Model 4-6 presents results using another proxy of firm value i.e. Price to Book ratio.

As evident from Table 4, all the three models using Tobin's Q as a proxy for firm value have an explanatory power of almost 44 percent as indicated by adjusted R2. The results reveal that internet based disclosure has a weak association with firm value. The coefficients are positive and statistically significant for Presentation score and Total IDI score, but not for Content score at 10 percent significance level. The findings are consistent with the works of Mendes-Da-Silva and Alves (2004), Elsayed (2010), Hassan and Melegy (2014) and Ahmed et al. (2015) who found similar results in Latin America and Egyptian context respectively. The results lend support to the viewpoint that disclosure of information on corporate websites assists in value creation. The results are consistent with the propositions of agency theory. The theory contends that disclosure of the information reduces the cost of capital because of decrease in information asymmetry between managers and shareholders. Miller and Bahnson (2002) argued that dissemination of voluntary information raises the confidence of the investors; hence they are contented with lower returns due to reduced risk, thereby increasing the value of the firms. An examination of Model 2 and Model 3 reveals that Presentation dimension exerts positive and significant influence on firm value, whereas Content dimension refutes its relationship with firm value. The firms scoring high on Presentation dimension facilitate investors with ease of access of information (Elsayed, 2010). The perceived ease of use attracts more number of investors, thereby increasing cash flows, which leads to rise in firm value.

As far as control variables are concerned, firm size, profitability, liquidity, industry sector and CEO duality indicate significant relationship with the firm value. The coefficients of firm size indicate negative and statistically significant relationship with firm value (p-value 0.00< 0.01). The findings reveal that smaller firms are better in creating firm value. The findings are in line with the results of Pandey (2005), Pant and Pattanayak (2007), Balasubramanian et al. (2010) and Kumar and Singh (2013) in Indian context. Results confirm to an inverse relationship shared by liquidity with firm value at five percent significance level. Firm profitability exhibits positive impact on firm value (p-value 0.00< 0.01) corroborating with the findings of Carter et al. (2003). The negative relation between CEO role duality and firm value is significant at five percent significance level (p-value 0.01< 0.05) consistent with the findings of Carter et al. (2003). Supporting the views of Al-Akra et al. (2012) and Hassan et al. (2009) industry sector proves to be significant driver of value creation.

With regard to other control variables, findings refute statistically significant relationship with firm value. Firm age, leverage, board size, board independence reflect negative and statistically insignificant relationship with firm value. The age of the firm fails to generate any significant repercussions on the firm value supporting the view of Pant and Pattanayak (2007) in Indian context. The variable leverage proxy by debt equity ratio has negative and statistically insignificant relationship with firm value. Al-Akra et al. (2012) and Siagian et al. (2013) evidenced similar relationship in Jordan and Indonesia respectively. The negative coefficients signify that highly levered firms have low firm value. Sales growth signifies positive and statistically insignificant relationship with firm value. The works of Hassan et al. (2009), Al-Akra et al. (2012), Vintila and Gherghina (2013), Siagian et al. (2013) found similar results. Board size reflects negative and insignificant relationship with firm value. The findings corroborate with the results of Kumar and Singh (2013) in Indian context. Board independence refutes its relationship with firm value which is supported by the findings of Khosa (2017) in Indian context. Both promoter ownership and institutional ownership affect firm value positively, however the results are not significant. The results are in line with the findings of Kumar and Singh (2013) in Indian context.

The impact of internet reporting on firm value using Price to Book ratio as proxy of firm value is captured in Model 4. Model 5 reports the impact of Content score and control variables on the firm value, whereas Model 6 encapsulates the impact of Presentation score and control variables on the firm value. Similar conclusions are found for the influence of internet reporting on firm value; however the models using Price to Book ratio as proxy have lower explanatory power than models using Tobin's Q as a proxy of firm value. Total IDI score and control variables in Model 4 account for 15.4 percent of variation in firm value. Corporate internet disclosure measured through Total IDI score influences firm value positively (p value 0.01<0.05). Firm size, firm age and liquidity depict inverse relationship with firm value at one percent and ten percent significance level respectively. The industry type also influences firm value at five percent significance level. Among governance attributes, CEO role duality concocts negative impact on firm value at ten percent significance level. However, all other control variables fail to generate any significant influence on the firm value. As evident from Model 5 and Model 6, the two dimensions of internet reporting also depicted similar results. Model 5 and its variables, i.e. Content score and control variables explain 14.4 percent of variation in firm value, whereas the explanatory power of Model 6 is 15.7 percent.

Table 4: Regression results - White heteroscedasticity consistent standard errors and Covariance

Independent Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
C	5.358 (1.878)*	5.646 (1.997)**	5.455 (1.998)**	18.655 (1.831)*	21.573 (2.059)**	19.302 (1.933)*
Total	0.031 (1.667)*			0.288 (2.552)**		
Content		0.021 (1.187)			0.189 (2.113)**	
Format			0.027 (1.874)*			0.256 (2.660)***
Assets	-0.501 (-4.847)***	-0.482 (-4.597)***	-0.474 (-4.889)***	-3.541 (-2.704)***	-3.361 (-2.637)***	-3.309 (-2.689)***
Age	-0.006 (-1.373)	-0.007 (-1.343)	-0.006 (-1.332)	-0.041 (-1.681)***	-0.040 (-1.643)	-0.040 (-1.640)
Lev	-0.153 (-1.253)	-0.160 (-1.297)	-0.163 (-1.394)	1.015 (1.598)	0.934 (1.455)	0.929 (1.494)
Liq	-0.101 (-2.193)**	-0.099 (-2.126)**	-0.109 (-2.431)**	-0.335 (-1.730)*	-0.325 (-1.647)	-0.415 (-2.269)**
Roa	0.152 (7.369)***	0.153 (7.284)***	0.155 (7.580)***	0.009 (0.050)	0.011 (0.059)	0.034 (0.191)
Growth	0.002 (0.780)	0.002 (0.782)	0.002 (0.683)	-0.035 (-1.000)	-0.035 (-0.989)	-0.039 (-1.071)
Mining	-0.101 (-0.197)	-0.066 (-0.130)	-0.176 (-0.335)	3.731 (1.403)	4.066 (1.501)	3.020 (1.201)
Food	1.116 (1.995)**	1.073 (1.906)	1.127 (2.017)**	3.921 (2.265)**	3.519 (2.070)**	4.055 (2.276)**
Textiles	3.012 (1.730)*	2.943 (1.692)	3.002 (1.708)*	10.299 (1.996)**	9.631 (1.892)*	10.253 (1.968)**
Chemicals	1.441 (2.544)**	1.425 (2.497)**	1.458 (2.581)**	4.743 (2.365)**	4.600 (2.270)**	4.903 (2.429)**
Pharma	1.016 (2.447)**	0.983 (2.360)	1.041 (2.496)**	7.855 (2.182)**	7.589 (2.120)**	8.057 (2.216)**
Rubber	0.057 (0.136)	0.036 (0.086)	0.014 (0.035)	2.553 (1.404)	2.328 (1.335)	2.176 (1.208)

Contd...

Contd...

Metals	0.202	0.186	0.169	4.487	4.361	4.199
	(0.582)	(0.538)	(0.485)	(1.375)	(1.329)	(1.319)
Electronics	0.730	0.679	0.752	4.619	4.133	4.859
	(1.920)*	(1.795)*	(1.978)**	(1.625)	(1.448)	(1.720)*
Machinery	0.527	0.507	0.540	1.882	1.685	2.017
	(1.281)	(1.236)	(1.305)	(1.159)	(1.033)	(1.229)
Vehicles	1.600	1.571	1.594	4.530	4.259	4.502
	(2.445)**	(2.398)**	(2.410)**	(2.240)**	(2.099)**	(2.137)**
Electricity	-0.413	-0.436	-0.438	2.202	1.987	1.983
	(-1.094)	(-1.162)	(-1.137)	(1.047)	(0.960)	(0.964)
Construction	-0.202	-0.212	-0.232	0.112	-0.010	-0.129
	(-0.629)	(-0.660)	(-0.725)	(0.079)	(-0.007)	(-0.092)
Transport	1.225	1.182	1.232	5.571	5.153	5.666
	(1.479)	(1.432)	(1.477)	(1.320)	(1.228)	(1.322)
Accom	-0.284	-0.310	-0.266	-0.206	-0.444	-0.013
	(-0.663)	(-0.737)	(-0.602)	(-0.131)	(-0.310)	(-0.007)
Board_size	-0.028	-0.025	-0.027	-0.135	-0.103	-0.127
	(-0.535)	(-0.473)	(-0.510)	(-0.739)	(-0.570)	(-0.696)
Pindir	-0.994	-1.021	-0.873	-3.043	-3.262	-1.916
	(-1.181)	(-1.223)	(-1.021)	(-0.998)	(-1.087)	(-0.611)
Ceo_dual	-0.788	-0.773	-0.814	-2.004	-1.873	-2.249
	(-4.167)***	(-4.076)***	(-4.260)***	(-1.946)*	(-1.828)*	(-2.133)**
Promoter	0.007	0.007	0.007	0.043	0.049	0.042
	(0.365)	(0.391)	(0.359)	(0.672)	(0.747)	(0.655)
Inst	0.006	0.007	0.005	0.006	0.001	0.005
	(0.278)	(0.330)	(0.277)	(0.090)	(0.242)	(0.081)
R-squared	0.477	0.475	0.477	0.211	0.202	0.214
Adjusted R-squared	0.438	0.437	0.439	0.154	0.144	0.157
F-statistic	12.464	12.382	12.484	3.666	3.466	3.739
Prob(F-statistic)	0.000	0.000	0.000	0.000	0.000	0.000
No. of Observations	382	382	382	382	382	382

Note: ***, **,* indicates statistical significance at one percent, five percent and ten percent respectively. t statistics are provided in parenthesis. TOTAL-Total score; CONTENT-Content score; FORMAT-Presentation Score; ASSETS-Firm size; AGE-Firm age; LEV-Leverage; LIQ-Liquidity; ROA-Return on assets; GROWTH-Sales Growth; FOOD-Food and Beverages; PHARMA-Pharmaceuticals; RUBBER-Rubber, Plastics, Wood and Leather; METALS-Metals and Non Metals; ELECTRONICS-Electronics and Electrical Equipments; MACHINERY- Machinery and Equipments; VEHICLES- Transport Equipments; ELECTRICITY- Electricity, Gas and Power; TRANSPORT-Transportation and Storage; ACCOM- Accommodation and Related Services; BOARD_SIZE- Board Size; PINDIR- Board independence; CEO_DUAL- CEO Duality; PROMOTER-Promoter Ownership; INST- Institutional Ownership.

Conclusion

Separate models have been employed considering two proxies of firm value i.e. Tobin's Q and Price to Book ratio. Using Tobin' s Q as a proxy of firm value only two measures i.e. Total IDI score and Presentation score support positive association with firm value, whereas Content dimension fails to concoct significant relationship. All the measures of internet reporting i.e. Total IDI score, Content score and Presentation score have significant bearing on firm value using price to book ratio as proxy of firm value. It can be inferred from the results that internet based disclosure has significant positive impact on the firm value, though the low values of coefficients indicate the presence of weak association. The models have low explanatory power for price to book ratio as dependent variable in comparison to Tobin's Q as a measure of firm value. The positive association between firm value and internet reporting highlights the importance of adopting internet as a disclosure tool by Indian companies. The findings indicate that Indian investors attach value to disclosure of information through corporate websites when making investment decisions. The findings are in line with the propositions of agency theory that argues that online disclosures addresses to information asymmetry issues arising out of conflict of interests between managers and shareholders, thereby decreasing the uncertainty level encompassing firm value.

REFERENCES

Ahmed, A. H., Tahat, Y. A., Burton, B. M. and Dunne, T. M. (2015). The value relevance of corporate internet reporting: The case of Egypt. *Advances in Accounting,* 31(2), 188-196.

Al-Akra, M. and Ali, M. J. (2012). The value relevance of corporate voluntary disclosure in the Middle-East: The case of Jordan. *Journal of Accounting and Public Policy,* 31(5), 533-549.

Allam, A. and Lymer, A. (2003). Developments in Internet financial reporting: Review and analysis across five developed countries. *The International Journal of Digital Accounting Research,* 3(6), 165-199.

Aly, D., Simon, J. and Hussainey, K. (2010). Determinants of corporate internet reporting: Evidence from Egypt. *Managerial Auditing Journal,* 25(2), 182-202.

Balasubramanian, N., Black, B. S. and 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.

Barth, M. E., Beaver, W. H. and Landsman, W. R. (2001). The relevance of the value relevance literature for financial accounting standard setting: Another view. *Journal of Accounting and Economics*, 31(1), 77-104.

Black, B. S., Jang, H. and Kim, W. (2006). Does corporate governance predicts firms' value?: Evidence from Korea. *Journal of Law, Economics and Organisation*, 22(2), 366-413.

Botosan, C. A. (2000). Evidence that greater disclosure lowers the cost of equity capital. *Journal of Applied Corporate Finance,* 12(4), 60-69.

Bushman, R. M. and Smith, A. J. (2003). Transparency, financial accounting information and corporate governance. *FRBNY Economic Policy Review,* April, 65-81.

Carter, D. A., Simkins, B. J. and Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. *Financial Review,* 38(1), 33-53.

Chao, C. F., Hsu, C. C. and Yeh, H. S. (2010). The relationship between information transparency and firm value: evidence from Taiwan. *International Journal of Business Excellence,* 3(2), 125-141.

Cheng, S. (2008). Board size and the variability of corporate performance. *Journal of Financial Economics,* 87(1), 157-176.

Chi, L. C. (2009). Do transparency and disclosure predict firm performance? Evidence from the Taiwan market. *Expert Systems with Applications,* 36(8), 11198-11203.

CICA and CIRI. (2008). Financial and Business Reporting on the internet: A Discussion Brief. Available at: https://www.cpacanada.ca/.../business.../financial-and-business-reporting-on-the-intern... (Downloaded on 23 September 2014).

Davey, H. and Homkajohn, K. (2004). Corporate internet reporting: an Asian example. *Problems and Perspectives in Management,* 2(2), 211-227.

Despina, A. C. and Demetrios, P. L. (2009). The web-based financial reporting adopted by the listed companies in the Athens Stock Exchange. *Journal of Modern Accounting and Auditing,* 5(7), 7-20.

Diamond, D. W. and Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. *The Journal of Finance,* 46(4), 1325-1359.

Djankov, S., McLeish, C., Nenova, T. and Shleifer. A. (2003). Who Owns the Media. *Journal of Law and Economics,* 46(2), 341-381.

Eisenberg, T., Sundgren, S. and Wells, M. T. (1998). Larger board size and decreasing firm value in small firms. *Journal of Financial Economics,* 48(1), 35-54.

Elsayed, A. N. M. E. (2010). Key determinants of the voluntary adoption of corporate internet reporting and its consequence on firm value: Evidence from Egypt. (Doctoral dissertation), Available at https://pearl.plymouth. ac.uk/handle/ 10026.1/343 (Downloaded on 23 September 2016).

Ettredge, M., Richardson, V. J. and Scholz, S. (2002). Dissemination of information for investors at corporate Web sites. *Journal of Accounting and Public Policy,* 21 (4), 357-369.

Financial Accounting Standards Board (2000). Business Reporting Research Project: Electronic Distribution of Business Reporting Information. Steering Committee Report Series, Available at: http://www.fasb.org/brrp/brrp1.shtml (Downloaded on 7 September 2014).

Garay, U., Gonzalez, M., Guzmán, A. and Trujillo, M. A. (2013). Internet-based corporate disclosure and Market Value: Evidence from Latin America. *Emerging Markets Review,* 17(4), 150-168.

Garg, M.C. and Gakhar, D.V. (2010). Web-Based Corporate Reporting Practices in India. *The IUP Journal of Accounting Research and Audit Practices,* 9(3), 7-19.

Goodstein, J., Gautam, K. and Boeker, W. (1994). The effects of board size and diversity on strategic change. *Strategic Management Journal,* 15(3), 241-250.

Hassan, O. A., Romilly, P., Giorgioni, G. and Power, D. (2009). The value relevance of disclosure: Evidence from the emerging capital market of Egypt. *The International Journal of Accounting,* 44(1), 79-102.

Hassan, T. and Melegy, M. (2014). Economic consequences of corporate voluntary disclosure: Evidences from Egyptian listed companies. *Accounting Thought,* 2(1), 1-34.

Healy, P. M. and Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics,* 31(1), 405-440.

Hunter, S. and Smith, M. (2009). Impact of internet financial reporting on emerging markets. *Journal of International Business Research,* 8(2), 21-41.

Jensen, M. C. and Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics,* 3(4), 305-360.

Kelton, A. S. and Yang, Y. W. (2008). The impact of corporate governance on Internet financial reporting. *Journal of Accounting and Public Policy,* 27(1), 62-87.

Khanna, T. and Palepu, K. (2000). The future of business groups in emerging markets: Long-run evidence from Chile. *Academy of Management Journal,* 43(3), 268-285.

Khosa, A. (2017). Independent directors and firm value of group-affiliated firms. *International Journal of Accounting & Information Management,* 25(2), 217-236.

Kumar, N. and Singh, J. P. (2013). Effect of board size and promoter ownership on firm value: some empirical findings from India. Corporate Governance: *The International Journal of Business in Society,* 13(1), 88-98.

Lai, S. C., Lin, C., Lee, H. C. and Wu, F. (2010). An empirical study of the impact of internet financial reporting on stock prices. *The International Journal of Digital Accounting Research,* 10(1), 1-26.

Lang, L. H. and Stulz, R. M. (1994). Tobin's Q, Corporate Diversification and Firm Performance. *Journal of Political Economy,* 102(6), 1248-1280.

Lang, M. H., Lins, K. V. and Miller, D. P. (2003). ADRs, analysts, and accuracy: Does cross listing in the United States improve a firm's information environment and increase market value?. *Journal of Accounting Research,* 41(2), 317-345.

Lipton, M. and Lorsch, J.W. (1992). A modest proposal for improved corporate governance. *The Business Lawyer,* 48(1), 59-77.

Marston, C. and Polei, A. (2004). Corporate reporting on the Internet by German companies. *International Journal of Accounting Information Systems,* 5(3), 285-311.

Mendes-Da-Silva, W. and Alves, L. A. (2004). The voluntary disclosure of financial information on the internet and the firm value effect in companies across Latin America. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id= 493805 (Downloaded on 23 December 2017).

Miller, P. B. and Bahnson, P. R. (2002). Fast track to direct cash flow reporting. *Strategic Finance,* 83(8), 51-60.

Morck, R., Shleifer, A. and Vishny, R.W. (1988). Management ownership and market valuation: An empirical analysis. *Journal of Financial Economics,* 20(1), 293-315.

Nguyen, P., Rahman, N., Tong, A. and Zhao, R. (2016). Board size and firm value: Evidence from Australia. *Journal of Management & Governance,* 20(4), 851-873.

Pandey, I. M. (2005). What drives the shareholder value?" Asian Academy of Management *Journal of Accounting and Finance,* 1, 105-120.

Pant, M. and Pattanayak, M. (2007). Insider ownership and firm value: Evidence from Indian corporate sector. *Economic and Political Weekly,* 42(16), 1459-1467.

Pinto, I. and Picoto, W. N. (2016). Configurational analysis of firms' performance: Understanding the role of Internet financial reporting. *Journal of Business Research,* 69(11), 5360-5365.

Pirchegger, B. and Wagenhofer, A. (1999). Financial information on the Internet: a survey of the homepages of Austrian companies. *European Accounting Review,* 8(2), 383-395.

Prosser, L. (2009). UK Standard Industrial Classification of Economic Activities 2007 (SIC 2007). Palgrave Macmillan, UK.

Rahman, M. Z. (2000). Accounting standards in the East Asia region. Available at: http://www.oecd.org/daf/ca/corporategovernanceprinciples/1931072.pdf (Downloaded on 23 December 2017)

Rahman, Z. D. (2010). The Impact of Internet Financial Reporting on Stock Prices Moderated by Corporate Governance: Evidence from Indonesia Capital Market. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1576327 (Downloaded on 18 August 2016).

Ramezani, C. A., Soenen, L. and Jung, A. (2002). Growth, corporate profitability, and value creation. *Financial Analysts Journal,* 58(6), 56-67.

Saravanan, P. (2012). Corporate governance and company performance: A study with reference to manufacturing firms in India. Available at: https://papers. ssrn.com/sol3/papers.cfm?abstract_id=2063677 (Downloaded on 10 December 2017).

Siagian, F., Siregar, S. V. and Rahadian, Y. (2013). Corporate governance, reporting quality, and firm value: evidence from Indonesia. *Journal of Accounting in Emerging Economies,* 3(1), 4-20.

Vintila, G. and Gherghina, S. C. (2013). Board of directors independence and firm value: empirical evidence based on the Bucharest stock exchange listed companies. *International Journal of Economics and Financial Issues,* 3(4), 885.

Watts, R.L. and Zimmerman, J.L. (1990). Positive Accounting Theory: A Ten Year Perspective. *The Accounting Review,* 65(1), 131-156.

Xiao, J. Z., Yang, H. and Chow, C. W. (2004). The determinants and characteristics of voluntary Internet-based disclosures by listed Chinese companies. *Journal of Accounting and Public Policy,* 23(3), 191-225.

Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics,* 40(2), 185-211.

The Indian Journal of Commerce
Vol. 72, No. 2, April-June, 2019

Environmental Reporting in India: Study of Select NIFTY Companies

VAISHALI NAROLIA AND RITU SAPRA

Abstract: *Disclosure of Environment related activities is one such area that has started gaining acknowledgement across nations. However, it is still voluntary in most of the countries because of the lack of mandatory environmental reporting requirements. In an effort to explore the state of environmental reporting in India, the paper analysed the sustainability reports of the select NIFTY companies falling under the 'highly polluting industries' list released by Central pollution control board of India. Based on GRI adapted environmental disclosure index (EDI), a content analysis of sustainability reports of 18 companies has been done. Another attempt has been made to identify any association between environmental disclosure levels and financial variables such as profitability, company size or leverage. The results reveal a significant negative correlation between company size and EDI, whereas an insignificant negative correlation between EDI and profitability or financial leverage in selected NIFTY companies. The outcomes of our study are intended to provide an insight into environmental reporting status in large Indian companies as well as an inter-industry and inter sector (public and private) comparative analysis of mean Environmental disclosure levels.*

Keywords: *Environmental Reporting, Environmental Disclosure Index, GRI, NIFTY, highly polluting industries, Content analysis*

Introduction

Environmental degradation has put our planet at risk today. Globally, discussions have been doing rounds on environmental sustainability and how to cope up with the various challenges faced by our ecosystem. Polluted air, water and soil are not just a danger to the environment but synergistically a public health challenge as well. The multi-fold economic and business development across the world owes a great deal to nature and its resources. Unfortunately, the environmental depletion is the cost that emerged as a result of negligence on part of the business organisations. Uwalomwa (2011) rightly asked the question if it was necessary for the environment to suffer to let the economy grow.

Vaishali Narolia is Research Scholar and Dr. Ritu Sapra is Associate Professor, Department of Commerce, Delhi School of Economics, University of Delhi, Delhi.

Industrialisation, as we know, is the major contributor to the globally prevailing environmental pollution and thus, industry has a duty to act towards it. In the last few decades, the higher degree of affluence, rising level of education and increasing awareness about this global alarming situation raised many eyebrows and questions on the policies, rules and regulations governing these industries. Consequently, these days it is highly expected that corporates apart from fulfilling their conventional financial goals, also meet high health and safety standards for workers, respect human rights, protect the interests of consumers and meet environmental standards (Smith, 2002 as cited in Chatterjee and Mir, 2009). Moreover, disclosing such type of non-core information is equally important. It is argued that a firm cannot sustain long run profits without embracing CSR (Norman, 1991 as cited in DeSilva, 2008). Corporate social disclosure, however, extends beyond a firm's social responsibility to also include the impact (positive and negative) of firm's activities on the social and environmental variables rightfully disclosed in its public reports. It is a holistic accounting concept that captures the societal and environmental impacts of corporate activities. Various studies done in the past in the area of social and environmental accounting have developed, supported and encouraged the view that companies do have a responsibility extending beyond providing financial information to stakeholders even if that comes with a cost (Hackston and Milne, 1996).

It should be noted that SEA research which gained momentum in early 70s (after the 1972 Stockholm Conference) was mainly descriptive and focussed primarily on social responsibility of business towards employees and product, environment not being on the top of list until early 90s. Few of the major accidents in Russia, India and Mexico severely impacting the environment and natural resources compelled world leaders to raise environmental concerns and a summit in Rio was held in 1992 in this regard (Belal, 2000). The period of 90s and onwards witnessed the domination of environmental accounting over social accounting so much so that today environmental accounting and reporting has stemmed as a new branch of accounting. Consequently, many large and internationally established companies started making specific environmental disclosures on a voluntary basis to bridge the information gap.

Needless to say, the importance and need of environmental accounting and reporting was first emphasised by developed countries and most of the research done till date in this area focusses on disclosure levels and the variables impacting environmental disclosure in companies of the developed nations (Chatterjee and Mir, 2008; Sobhani et al, 2009; Belal, 2000). Various descriptive and empirical studies done across a variety of these nations covered themes like nature of disclosure (voluntary or mandatory), quality of information disclosed, location of disclosure in reports, factors impacting the extent, importance of environmental reporting and the various legislations and regulations governing such disclosures in different countries. The lack of uniformity in the laws, legislations and guidelines governing environmental disclosures in different countries and most of the companies disclosing information voluntarily, a mixed set of results appear from past studies. These set of results also paved way for the evolution of some prominent socio-economic theories justifying environmental disclosures by companies namely, legitimacy theory, stakeholder theory and political economy theory (De Silva, 2008).

Not many significant works in Environmental accounting literature capture the status of corporate disclosure in developing and poor nations (Chatterjee and Mir, 2008). Our paper is an attempt to add something meaningful to the environmental accounting literature providing reference to Indian companies. An analysis of the Sustainability reports published by the selected companies was done to assess the environmental disclosure levels in this regard. As of date no specific guidelines or framework of corporate environmental reporting have been mandated by Indian government. Thus, environmental information if disclosed by firms is purely voluntary (Omnamasivaya and Prasad, 2016). Most of the large firms follow international standards such as GRI to make such voluntary non-financial disclosures. The sustainability reports have been evaluated based on index adopted from GRI G4 guidelines.

Environmental Accounting and Reporting: The concept

Bennett and James (1998, p.33) defined environmental accounting as "the generation, analysis and use of financial and non-financial information in order to optimise corporate, environmental and economic performance, achieving a sustainable business". It aims to capture and introduce to the general public, that aspect of business which was until now being neglected by both the business organisations and society and was not considered imperative for decision making purposes. The corporate environmental accountability today has gained enough momentum and many nations (developed and developing) have put their step forward in this direction as it is only rational to realise that economic advancements can prove no good by putting environment at stake. Pramanik, Shil and Das (2007) defined Environmental reporting "as an umbrella term that describes the various means by which companies disclose information on their environmental activities". However, environmental reporting still is predominantly voluntary (Marshall and Brown, 2003) which has led to reporting variations in companies indicating that they do not have the proper understanding of *why, how and what* of environmental reporting (De Silva, 2008). The challenge thus, is to build a mechanism of reporting that reflects the true impact of business activities on the environment, and develop such rules for organisations to follow that provides them a framework for disclosing their environment-related and other non-financial information in the annual reports. Strict regulatory measures need to be established and implemented in order to 1) curb hazardous industrial practices; 2) bring environmental-unfriendly industries under scanner; 3) provide statutory norms for reporting and disclosing environmental information by organisations 4) suggest alternative ways to reduce industrial impact on environment and 5) build an environmentally sustainable business world.

Theories Explaining Environmental Disclosure

There have emerged several theories in the pool of literature discussing possible reasons and influencing factors behind corporate environmental reporting in different political-economic setups. These theories largely focus on the voluntary disclosures made by companies. The most cited ones are Political economy theory, legitimacy theory and stakeholder theory, a significant classification of theories propounded by Gray, Kouhy & Lavers (1995) (as cited in Cowan (2007) and Uwalomwa (2011).

Political Economy Theory: Cowan (2007) provided a well organised and detailed insight into the reasoning of these theories providing sufficient references of past works. Political economy theory, as described by the author focusses not just on the economic and wealth motives of the organisation solely, rather it gives due consideration to the political and institutional framework existing within which an organisation fulfils economic interests. Thus, disclosure is not just an economic requirement but a political and social requirement as well. Uwalomwa (2011) suggested that social disclosures are necessary to avoid government intervention.

Legitimacy Theory: Legitimacy theory posits that organisations attempt to establish conformity between the social norms and its economic activities to continue being a part of society. "Using the legitimacy perspective, firms voluntarily disclose environmental information to show that they are conforming to the expectations and values of the society within which they operate" as quoted from Uwalomwa (2011). Omnamasivaya and Prasad (2016) also used Legitimacy theory to explain reasons behind environmental disclosure. He says, being a part of the society, it is the moral duty of the organisations to protect the environment and minimise hazardous activities. They might have to face fatal consequences if they do not live up to society's expectations.

Stakeholder Theory : The term 'stakeholder' not just covers the shareholders but the customers, employees, local authorities, suppliers, interest groups, investors, media and general public at large. Stakeholder theory covers two ideologies namely *ethical* and *managerial* behind environmental disclosure. Ethical branch purports that all stakeholders are important irrespective of the interest they have or the benefit they may provide to the organisation, thus its corporate's responsibility to enable them with environmental and social disclosures. Managerial branch on the other hand perceives the control or effect stakeholders might have over organisational resources. Hence, in order to avoid any hindrance in stakeholders' support, their constant approval of organisations activities and disclosures must be sought (Cowan, 2007).

Review of Literature

Previous literature investigating environmental information disclosure by companies has considered environmental attributes disclosed in annual reports. Harte and Owen (1991) analysed the annual reports of 30 British companies to investigate the environmental reporting practices in their annual reports. The authors revealed that most of the environmental reporting by these companies was still at a general level and very close to disseminating their general commitment to green issues. Following this result, the authors suggested that the only way of improving environmental reporting is the introduction of specific, auditable information through the introduction of a form of compliance with external standards of reporting. Yusoff and Darus (2012) explored the environmental reporting practices in Malaysian companies and examined how the companies are striving to communicate their environmental information and performance to the stakeholders publicly. They were of the view that effective reporting practices served to enhance business stakeholder relationship. The results of their study revealed that environmental disclosures were primarily done keeping the government and regulatory authorities in view. Shareholders however were considered the primary audience for environmental disclosures. Moreover, the results found that enhancing the corporate image and fulfilling the accountability needs were the major reasons for disclosures supporting the *stakeholder theory*.

Galani et al. (2011) examined the relationship between environmental disclosure and firm size by using 100 Greek companies. Environmental disclosure was measured by using environmental disclosure index and the independent variables tested in the study were profitability, size and listing status. The study found that there was a positive significant relationship between environmental disclosure and size of the firm and it was also found that there was no relationship between environmental disclosure and profitability listing requirements. Chatterjee and Mir (2008) contribute to the literature by inspecting the websites of Indian companies to check the extent and accessibility of environmental information. Based on their content analysis of 39 Indian annual reports of the year 2003-04, they found that despite lack of regulatory requirements most companies disclosed environmental information on a voluntary basis to portray a positive picture. The findings suggest that web sites disclosed more environmental information than the annual reports and that information disclosed is either positive or neutral but not bad. The overall analysis supports the legitimacy theory of environmental disclosure.

Chaklader and Gulati (2015) researched on 50 companies selected from the ET 500 companies based on their turnover to check the *impact of variables* such as profitability, size, type of industry, financial leverage, multinational status and environmental certification on Environmental disclosure index. The study was conducted for the period of 2009 to 2012. Results of the year wise pooled regression analysis revealed that the company size and environmental certification were the two most statistically significant variables positively affecting the EDI of a company. It was supported with the argument that large sized companies disclose more as a result of stakeholders' pressure and a company which is environmentally certified has to abide by the rules and regulations of the rating agency and thus has to disclose more. Gupta (2013) explored the nature and extent of environmental reporting practices by Indian corporates and the driving factors behind the disclosure by analysing the published annual reports of top 50 companies of NSE for the period 2007-2010. Based on the data analysis using a 23 item environmental disclosure index, the results concluded that disclosure levels were still at an infancy stage for most companies in sample and disclosure made was mainly voluntary in nature. However, polluting industries were found to be disclosing more information than the less polluting industries. In addition, the factors such as foreign association, size of the company, profitability, debt-equity ratio, environmental performance were found to be positively influencing the environmental reporting of Indian companies.

Omnamasivaya and Prasad (2016) analysed the annual reports of NIFTY 50 companies representing varied sectors for the year 2014 to investigate the relationship between the levels and determinants of environmental disclosure by Indian companies. The extent of disclosure was measured using EADI made up of 20 items related to environment and energy. Based on previous literature, the independent variables used in the study were corporate size, age, financial leverage, industry type, legal ownership and foreign operations. The results of multiple regression analysis revealed profitability, financial leverage, industry type and legal ownership positively impacting the disclosure levels and corporate size, age and foreign operations negatively influencing the same. Sahay (2004) regarded environmental reporting as a multi-disciplinary subject which is looked through different angles of strategy, marketing, operation, HRD and accounting. They conducted a primary survey of leading 250 companies taken from ET 500 in 2003, which included major proportion of companies from oil and gas, automobile, cement, chemical and fertilizer, engineering, FMCG, mining and metallurgy, pulp and paper, pharmaceutical, power and telecom sectors. None of the companies belonging to banking, telecom and IT was found to have reported their environmental performance. The analysis concluded that barring a few globally recognized Indian companies, the reporting was majorly unsystematic and non-comparable even within the same sector. The author opined that lack of pressure from stakeholders and unregulated compliance mechanism gave companies the liberty to publicize only their good environmental deeds freely without giving factual data and environmental trends. It was felt that proper enforcement was required for good quality of environmental reporting.

It is important here to mention that previous literature has shown mixed results on the association of environmental disclosure index with various variables (Clarkson et al, 2007). However, these differences can be owing to different corporate, political, legal and economic setups and disclosure requirements across nations.

Objectives

The objectives of the study are:

- To identify the environmental disclosure levels across *different industrial sectors* in India.
- To verify the relationship between environmental disclosure scores and corporate financial variables such as *company size, profitability* and *financial leverage*.
- To explore the association between *Government ownership* and disclosure levels of firms.

Research Methodology

Sample

The sample was selected from the NSE NIFTY 50 and next 50 companies. The reasons behind opting NSE NIFTY was first, it captures companies from diverse industrial sectors operating in the economy and second, these companies represent the highest market capitalization in the economy (Omnamasivaya and Prasad, 2016). The focus was only limited to the companies falling under 'Highly Polluting Industries' category of CPCB's report 2009 and the ones publishing Sustainability reports. Based on these two criteria, our final sample consisted of 18 companies. It should be noted that our study is a nascent one mainly aimed to provide way to further research in Indian context. Holland and Foo(2003) justified using small sample size in a study if aimed at providing insights for further research (as cited in Sen et al, 2011).

CSR or Sustainability reports are dedicated to detailed social and environmental disclosures. Annual reports of these firms hence contain only a brief overview of environmental activities. Thus, to have a comprehensive and uniform content analysis of our sample, we excluded Annual reports from our study and restricted ourselves to Sustainability reports. We downloaded the sustainability reports from the company's websites for the financial year 2016-17. Interestingly, publishing of the sustainability report is not a mandatory requirement under Indian laws. Thus, the results are expected to provide more meaningful inferences from the data as to why and how much the companies are disclosing.

Table 1: Profile of companies under study

Name of the company	Industry
Ambuja Cements Ltd.	Cement
Bharat Petroleum Corporation Ltd.	Oil and Gas
Dr. Reddy's Laboratories Ltd.	Pharma
Gail (India) Ltd.	Oil and Gas
Hindalco Industries Ltd.	Metal
Hindustan Petroleum Corporation Ltd.	Oil and Gas
Indian Oil Corporation Ltd.	Oil and Gas
JSW Steel Ltd.	Metal
NTPC Ltd.	Power
Oil & Natural Gas Corporation Ltd.	Oil and Gas
Power Grid Corporation of India Ltd.	Power
Reliance Industries Ltd.	Power
Shree Cement Ltd.	Cement
Tata Steel Ltd.	Metal
UPL Ltd.	Pesticides & Agrochemicals
Ultra Tech Cement Ltd.	Cement
Vedanta Ltd.	Metal
Acc	Cement

Variables used in the Study

Environmental Disclosure Index: An environmental disclosure index based on GRI G4 guidelines is used to assess the discretionary environmental disclosure made by companies in sustainability reports. GRI is an independent institution whose mission is to develop and disseminate globally applicable sustainability reporting guidelines. These guidelines are voluntary in nature but becoming popular among organizations for reporting on the economic, social, and environmental dimensions of their activities (processes), products and services. Our GRI based index is divided into 12 major categories which are further spread across 34 disclosure items. To find the maximum score a company can obtain, we rated each of the 34 items of our Environmental disclosure index on a scale of 0-4. The maximum score a company can obtain was found to be 110. The scale values 0-4 can be interpreted based on each item's disclosure requirements as follows:

0 - No Disclsoure

1- General Statement

2- Descriptive and specific information with percentage (if any)

3- Quantitative, specific information with detailed methods, standards and reasoning

4- Quantitative with comparisons, base year, category wise, detailed disclosure

Company Size : We used market capitalisation (free-float) of companies as on 31st March 2017 as reported in the NSE fact sheet 2017 as a proxy variable for 'Company size'. Many other previous studies have used market capitalisation to explore the relationship between corporate size and environmental disclosure levels. Alternatively, total assets, employee strength and total sales have also been used to depict company size. Majorly, the studies have found a positive relation between company size and environmental disclosure (Freedman and Jaggi, 2005; Gupta, 2013; Chaklader and Gulati, 2015; Comier, 2001; Clarkson et al, 2007).

Profitability : Mixed results have been reported on the relation between profitability and environmental disclosure levels of organisations (Burgwal and Vieira, 2014). Some studies found a positive relationship (Clarkson et al, 2007; Burgwal and Vieira, 2014; Omnamasivaya and Prasad, 2016) whereas some found a negative relationship. Also, there have been studies which concluded that no significant relation (Chaklader and Gulati, 2015) can be established between profitability and environmental disclosure levels. We have used Return on Capital employed (ROCE) as the measure of profitability in our study.

Financial Leverage : To examine whether a firm's capital structure has any association with its level of environmental disclosure, we have used the debt-equity ratio as a variable in our study. Omnamasivaya and Prasad (2016) cited Joshi et al (2011) in their study who opined that highly levered firms tend to disclose more environmental information in order to build goodwill among stakeholders.

Industry Type : We took companies from 6 major sectors namely Oil and Gas, Cement, Pharmaceuticals, Power, Metal and Pesticides which form a part of the 17 'highly polluting industries' list generated by Central Pollution Control Board, Ministry of Environment and Forests, India in the year 2009. It has been found in previous literature that polluting industries tend to disclose more as compared to non-polluting industries (Patten, 2002). However, as our study does not capture non-polluting firms, our focus would be on determining if there exists a significant difference between disclosure levels of different polluting industries. Also, to find which industries have the highest levels of disclosure.

Ownership : It was sought to examine if a company's ownership is in any manner related to the level of its environmental disclosures. It is presumed that Government held companies disclose more than the private companies. Ownership was depicted by a binary variable, 0 for non-government owner companies and 1 for government owned companies.

Methodology

The sustainability reports were subjected to 'Content Analysis' for collecting data relating to companies in sample. Abbot and Monsen (1979) defined content analysis as "A technique for gathering data that consists of codifying qualitative information in anecdotal and literary form into categories in order to derive quantitative scales of varying levels of complexity". The evaluation of total environmental score of each company was done using a GRI G4 based 34 items index. The obtained score was divided by the maximum score i.e 110 to arrive at the Environmental disclosure index of a company.

$$\text{EDI of each company} = \frac{\text{Score obtained by a company}}{110} \times 100$$

Secondly, the market capitalisation (free-float) of each company as on 31st March 2017 was obtained from a NSE fact sheet 2017 downloaded from NSE India website. Lastly, the data on variables such as ROCE, debt-equity ratio, type of Industry and ownership was acquired from the Annual reports of the companies for the year ending 31st march 2017.

Hypotheses

Ho_1: There is no significant difference between the average environmental disclosure scores of different industries.

Ho_2: There is no significant relationship between environmental disclosure levels and profitability, company size or financial leverage of a firm.

Ho_3: There is no significant difference between the average disclosure levels of public sector companies and private sector companies.

Data Analysis and Results

Table 2: Frequency distribution of sample

Industry	Frequency	(%)
Cement	4	22.2
Oil and Gas	5	27.8
Pharma	1	5.6
Metal	4	22.2
Power	3	16.7
Agrochemicals	1	5.6
Total	18	100.00

Table 2 presents the industry wise frequency distribution of our sample in study. As shown in the table, out of the total 18 companies, Oil and Gas have the highest occurrence of 5, Cement and Metal are represented by 4 companies each. Whereas, Agrochemicals and Pharmaceuticals only have one company each in the sample. The reason is that most of the Pharmaceutical companies listed in the NIFTY 50 and next 50 do not publish Sustainability reports because of which they were excluded from the sample. Regarding Agrochemicals, there were a very few companies under this industrial sector listed in NIFTY index.

Table 3: Tests of normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
EDI	140	18	200*	925	18	161
Debt to Equity ratio	162	10	200	903	10	066
FF Mkt cap 2016-17 (Cr)	365	18	000	472	18	000
Roce	151	18	200*	922	18	141

* This is a lower bound of the true significance
a. Lilliefors Significance Correction

Based on Shapiro Wilk test, it can be derived that EDI, Debt-equity ratio and ROCE are normally distributed. However, Market capitalisation is not normally distributed.

Table 4: Industry-wise descriptive statistics of variables

Report					
Industry		EDI	FF Mkt Cap 2016-17(Cr)	Debt to Equity ratio	ROCE
Cement	Mean	60.6818%	21511.75	–.0100	13.4750%
	N	4	4	4	4
	Std. Deviation	2.50344%	13532.894	.07439	3.65639%
Metal	Mean	42.9545%	26764.75	.8025	10.6075%
	N	4	4	4	4 4
	Std. Deviation	12.77858%	5707.694	.63819	3.38892%
Oil and Gas	Mean	50.1818%	35185.00	.4560	22.0080%
	N	5	5	5	5
	Std. Deviation	10.29322%	11315.793	.26595	7.56999%
Pesticides &	Mean	29.0909%	26532.00	.4700	23.2000%
Agrochemicals	N	1	1	1	1
	Std. Deviation	-	-	-	-
Pharma	Mean	41.8182%	31847.00	.2500	10.3000%
	N	1	1	1	1
	Std. Deviation	-	-	-	-
Power	Mean	41.8182%	100980.00	.5933	8.4300%
	N	3	3	3	3
	Std. Deviation	10.00000%	101804.261	.54784	4.30112%
Total	Mean	47.8788%	40575.00	.4417	14.7311%
	N	18	18	18	18
	Std. Deviation	11.91038%	45677.265	.45800	7.23692%

Table 4 presents the descriptive statistics of all the variables used in the study. Based on the analysis, it is evident that the maximum environmental disclosure is done by Cement industry (60.68%) followed by Oil and Gas Industry (50.18%). The least amount of disclosure is seen in the Agrochemicals and Pesticides Industry (29.09%).

Hypotheses Testing

H_1: There is no significant difference between the average environmental disclosure scores of different industries.

Results of Test (ANOVA)

Tables 5a & 5b depict the results of ANOVA conducted to explore the differences between average environmental disclosure scores of the six industries in sample. Cement industry's mean disclosure level stands at 60.68% followed by Oil and Gas Industry's at 50.18%. The least amount of disclosure is seen in the Agrochemicals and Pesticides Industry (29.09%). In addition, the results of ANOVA are significant at 10% ($p = 0.073$). Hence, our hypothesis is not accepted and it can be stated that there exists a significant difference between the environmental disclosure levels of these six industries. Cement Industry makes the highest level of environmental disclosures and Pesticides industry makes the least.

Table 5a: Industry-wise EDI descriptives

Industry	N	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Cement	4	60.68%	2.48%	1.24%	58.20%	63.60%
Oil and Gas	5	50.20%	10.27%	4.59%	37.30%	64.50%
Pharma	1	41.80%			41.80%	41.80%
Metal	4	42.95%	12.77%	6.39%	33.60%	61.80%
Power	3	41.80%	10.00%	5.77%	31.80%	51.80%
Agriochemicals	1	29.10%			29.10%	29.10%
Total	18	47.88%	11.90%	2.81%	29.10%	64.50%

Table 5b: Anova

	Sum of Squares	df	Mean Square	F	Sign.
Between Groups	1279.091	5	255.818	2.711	.073
Within Groups	1132.479	12	94.373		
Total	2411.570	17			

H2: There is no significant relationship between environmental disclosure levels and profitability, company size or financial leverage of a firm.

Results of the Correlation Test

Table 6 presents the results of Pearson correlations between EDI and independent variables such as company size measured by market capitalisation, financial leverage measured by debt-equity ratio and profitability measured by return on capital employed. The outcomes suggest that environmental disclosure levels in Indian companies (listed in NIFTY) are negatively correlated with their company size, profitability and financial leverage. The inverse relationship between company size and EDI is significant (Omnamasivaya and Prasad, 2016), but the relationship between EDI and profitability or financial leverage is insignificant.

Table 6: Pearson correlations

	EDI	Debt to Equity ratio	FF Mkt Cap 2016-17(Cr)	ROCE.
EDI	1			
Debt to Equity ratio	–.067	1		
FF Mkt Cap 2016-17(Cr)	–.409*	–.211	1	
ROCE	–.124	–.127	–.232	1

Note: Correlation * is significant at 10% significance level (p = 0.092)

H3: There is no significant difference between the average disclosure levels of public sector companies and private sector companies.

Results of Independent Sample t-test

Comparing Public Sector and Private Sector Environment Disclosures

Table 7:Mean EDI in Public and Private Sector companies

		N	Std. mean	Deviation	Std. Error mean
EDI	0	11	47.02%	13.79%	4.16%
	1	7	49.22%	9.04%	3.42%

Table 8:Independent samples test

		F	Sign.	t	df	Sig.(2-tailed)	Meand diff.	Std. Eroor diff.
EDI	Equal variances assumed	7.343	.015	-.372	16	.715	-2.20%	5.91%
	equal			-.408	15.947	.689	-2.20%	5.38%

To explore the extent of environmental disclosures in public sector and private sector companies, Independent sample t-test was applied. The outcome of the test disclose that the mean disclosure level in public sector companies is higher (49.22%) as compared to Private sector companies (47.02%).

Conclusion

In India, a legitimate and statutory environmental disclosure mechanism is yet to come in place. A majority of large companies included in this study followed the set of voluntary GRI guidelines for disclosing their environment related information. The study reveals that although not mandatory, Indian companies were providing their environmental information in their sustainability reports. The reason for such voluntary disclosure was most likely corporate image creation. A few important outcomes from our study are:

- Cement Industry disclosed the highest amount of environmental information with a mean score of 60.68% whereas Agrochemicals disclosed the lowest level of environmental disclosure with a mean score of 29.10%.
- The companies having government ownership disclose significantly more amount of environmental information as compared to private sector companies. This result is supported by stakeholder theory.
- Lastly, A significant negative correlation between company size and EDI was found. This result has been supported by previous studies done in context of NIFTY companies (Omnamasivaya and Prasad, 2016).

Scope and Limitation of the Study

The important limitation of our study is its small sample size. Further research can be done taking a larger sample size and broadening the number of industries under study. Secondly, we have only analysed sustainability reports to evaluate environmental disclosure. Future studies in this context may be done by also including annual reports and analysis of company's website.

REFERENCES

Board, C. P. (2009). *Criteria for comprehensive environmental assessment of Industrial Clusters.* Ministry of Environment and Forests. Delhi: Central Pollution Control Board

Burgwal, D. V. D., & Vieira, R. J. O. (2014). Environmental disclosure determinants in Dutch listed companies. Revista Contabilidade & Finanças, 25(64), 60-78.

Chaklader, B., & Gulati, P. A. (2015). A study of corporate environmental disclosure practices of companies doing business in India. *Global Business Review,* 16(2), 321-335.

Chatterjee, B., & Zaman Mir, M. (2008). The current status of environmental reporting by Indian companies. *Managerial Auditing Journal,* 23(6), 609-629.

Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2008). Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. *Accounting, Organizations and Society,* 33(4-5), 303-327.

Cowan, Stacey (2007). *Environmental Reporting And The Impacts Of Mandatory Reporting Requirements (*Doctoral Thesis*)*. Retrieved from https://researchbank.rmit.edu.au/eserv/rmit:6313

Deegan, C., & Gordon, B. (1996). A study of the environmental disclosure practices of Australian corporations. *Accounting and Business Research*, 26(3), 187-199.

De Silva, T-A (2008). *Voluntary Environmental Reporting: The Why, What and How* (Doctoral Thesis). Retrived from https://www.researchgate.net/publication/27814996

Exchange, N. S. (2017). *NSE Fact Book*. Mumbai: National Stock Exchange of India Limited.

Freedman, M., & Jaggi, B. (1988). An analysis of the association between pollution disclosure and economic performance. *Accounting, Auditing & Accountability Journal*, 1(2), 43-58.

Gupta, V. K. (2013). Environmental accounting and reporting-an analysis of Indian corporate sector. Available online at http: http://www. wbiconpro. com/110-Gupta. pdf, retrieved 21st July.

Gray, R., Kouhy, R., & Lavers, S. (1995). Corporate social and environmental reporting: a review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing & Accountability Journal,* 8(2), 47-77.

Hackston, D., & Milne, M. J. (1996). Some determinants of social and environmental disclosures in New Zealand companies. *Accounting, Auditing & Accountability Journal,* 9(1), 77-108.

Harte, G. and Owen, D. (1991). Environmental disclosure in the annual reports of British companies: a research note. *Accounting Auditing & Accountability Journal,* Vol. 4 No. 3, pp. 51-61.

Omnamasivaya, B., & Prasad, M. S. V. (2016). Factors influencing environmental accounting and disclosure practices in India: Empirical evidence from NIFTY companies. *IUP Journal of Accounting Research & Audit Practices*, 15(1), 21.

Patten, D. M. (2002). The relation between environmental performance and environmental disclosure: a research note. *Accounting, Organizations and Society*, 27(8), 763-773.

Rahman Belal, A. (2001). A study of corporate social disclosures in Bangladesh. *Managerial Auditing Journal*, 16(5), 274-289.

Sahay, A. (2004). Environmental reporting by Indian corporations. *Corporate Social Responsibility and Environmental Management,* 11(1), 12-22.

Scott Marshall, R., & Brown, D. (2003). Corporate environmental reporting: what's in a metric. *Business Strategy and the Environment*, 12(2), 87-106.

Sen, M., Mukherjee, K., & Pattanayak, J. K. (2011). Corporate environmental disclosure practices in India. *Journal of Applied Accounting Research,* 12(2), 139-156.

Sobhani, F. A., Amran, A., & Zainuddin, Y. (2009). Revisiting the practices of corporate social and environmental disclosure in Bangladesh. Corporate *Social Responsibility and Environmental Management,* 16(3), 167-183.

Uwuigbe, U. (2011). Corporate environmental reporting practices: A comparative study of Nigerian and South African firms (Doctoral dissertation, Covenant University).

Yusoff, H., & Darus, F. (2012). Environmental reporting practices in Malaysia: Is it a mechanism for corporate accountability and stakeholder engagement. *Malaysian Accounting Review,* 11(2).

The Indian Journal of Commerce
Vol. 72, No. 2, April-June, 2019

Impact of Mandatory Corporate Social Responsibility Provisions on CSR Expenditure of Central Public Sector Enterprises of India

DHARTIBEN P. RAMI, KAMINI SHAH AND SANDIP BHATT

Abstract: In this research paper, the researchers has examined CSR spending of selected Maharatna and Navratna companies of CPSEs in India. This paper aims to understand the impact of Mandatory CSR provisions as per The Indian Companies Act, 2013. The study observed that the provisions of Section 135 of the Companies Act, 2013 indeed have raised the amount spent by the companies and have significant impact on the CSR expenditure by these selected companies.

Keywords: Corporate social responsibility, Central Public Sector Enterprises, Section 135

Introduction

In this age of globalization, Corporations and business enterprises are no longer restricted to the traditional borderlines of the business. For the new generation of corporate leaders, optimization of profit is more important than its maximization. Hence, there is a noticeable shift from accountability to shareholders to accountability to all stakeholders for the long-term success and sustainability of the business. The ethical business is more a fundamental need and an emerging trend on the international scene. In an ethical business, the main thrust is on social values and business is conducted in consonance with broader social values and the stakeholders' long-term interest. India is not far from this trend. It became mandatory to allocate 2% of last 3 years average net profit of public and private companies for corporate social responsibility activities operating in India from 1st April, 2014 onwards. This allowed corporate sector to lean over to social responsibility and sustainable environment.

Ms Dhartiben P. Rami is PhD Scholar, Department of Business Studies, Sardar Patel University, Vallabh Vidyanagar, Dr Kamini Shah is Associate Professor & Research Guide, Department of Business Studies Sardar Patel University, Vallabh Vidyanagar and Prof. Sandip Bhatt is Head, Department of Business Studies, Sardar Patel University, Vallabh Vidyanagar.

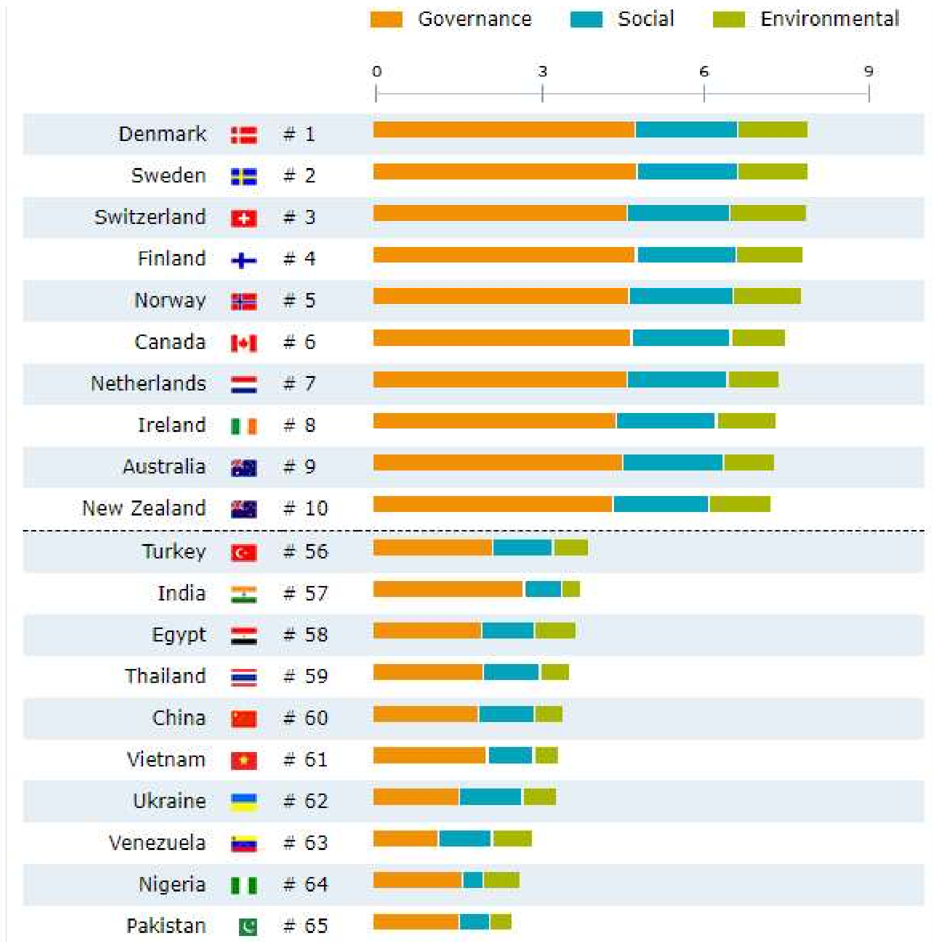


Fig.1: Graph of country sustainability ranking as on April 2018 (top 10 & bottom 10)

Source: RobecoSAM, 2018

The country sustainability ranking 2018 developed by RobecoSAM and Robeco is a comprehensive framework for analyzing countries' Environmental, Social and Governance (ESG) performance. The country sustainability score is based on 17 environmental, social and governance indicators, which receive a weight of 15%, 25% and 60% of the total score, respectively. According to the ranking India placed at 57th place in this index. It highlights the need of environmental, social and governance improvement in India.

Legal Mandate for Corporate Social Responsibility

Section 135 of the Companires Act, 2013 makes CSR expenditure of companies and reporting mandatory for the very first time in India, which are mandatory for both public and private sector. Specifically, the provisions under Section 135 requires companies with, a) Net worth of Rs 500 crore or more, or; b) Turnover of Rs 1000 crore or more or; c) Net profit of Rs five crore or more. has (i) to appoint a CSR committee of at least 3 directors (one independent director), and (ii) under the guidance of the CSR committee, spend in every financial year, at least two per cent of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility policy. As per the CSR rules, The CSR committee shall formulate and recommend to the Board, a policy which indicates the activities to be undertaken, allocate resources and monitor the CSR Policy of the company. If the company did not spend CSR, it has to disclose the reason for not spending. Non-disclosure or absence of the details will be penalized from Rs 50,000 to Rs 25 lakh or even imprisonment of up to 3 years. Focused areas for CSR activities for underprivileged lives are Eradicating hunger, Poverty & malnutrition, Ensuring environmental sustainability, Promoting education, Improving maternal & child health, Promoting sports, protection of national heritage, Measures for the benefit of armed forces, Contribution to the Prime Minister's National Relief, Slum area development etc. (Ministry of Corporate Affairs, 2013)

Review of Literature

Ekhande and Patil (2017) examined concept and growth of CSR and highlights CSR activities and spending state wise and areas covered under CSR activities. This study shows that CSR activities were higher in the year 2016-17 in comparison to the year 2015-'16 but is still in need of more active and positive participation from corporate world for increasing funds. More activities are still required which can bring sustainable growth. Sai, (2017) showed that although the spending of corporate has risen by 26% due to the Act but there are some companies which come under the provisions have not spent even 2% of their net profit towards CSR. (Sai, 2017). Arevalo and Arvind, (2015) examined the ways of companies interpret CSR based on four known approaches: the ethical, the static, the liberal and the stakeholder approach and also investigate drivers and barriers for implementing CSR practices. It suggested that more favorable approach by Indian firm is the stakeholder approach.

Gupta and Arora (2014) analysed CSR activities of Maharatna and Navaratna companies of central undertakings. Most of them were already performing CSR activities before the Companies Act, 2013, made CSR expenditure mandatory for companies which is less effected as CSR activities were already actively spending but due to compulsion of the provisions it does raise the expenditure for CSR activities of some public sector undertakings. Kumar and Reddy (2012) focused on the practices of corporate social responsibility in SAIL. From the study it was found that SAIL has been providing sufficient funds and has proper implementation setup but there was lack of detailed execution plan on CSR activities which can avoid lapse of fund and ensures full utilization of dedicated funds.

Objectives of the Study

The major objectives of the research are:

- To analyze the impact of mandatory CSR provisions on CSR activities of Maharatna Enterprises of India.
- To analyze the impact of mandatory CSR provisions on CSR activities of Navaratna Enterprises of India.
- To compare the impact of mandatory CSR provisions on CSR activities of Central Public Sector Enterprises (CPSE) of India.

The study uses Analytical and Causal research design based on secondary data collected from annual reports of Central Public Sector Enterprises. The study is based upon secondary data sources such as various websites and annual reports derived from respective enterprises of selected CPSEs. The CSR provisions cover all public and private sector companies operating in India but this study will cover selected CPSEs of India consisting of 7 Maharatna Companies and 9 Navratna Companies.

Research Methodology

Sample Size

Following CPSEs are selected for the purpose of the study:

A. Maharatna Companies [7 Companies]

1. Bharat Heavy Electricals Limited (Bharat Heavy Electricals Limited, 2011-2017)
2. Coal India Limited (Coal India Limited, 2011-2017)
3. Gas Authority of India Limited (Gas Authority of India Limited, 2011-2017)
4. Indian Oil Corporation Limited (Indian Oil, 2011-2017)
5. National Thermal Power Corporation Limited (NTPC, 2011-2017)
6. Steel Authority of India Limited (SAIL, 2011-2017)
7. Bharat Petroleum Corporation Limited (BPCL, 2011-2017)

B. Navaratna Companies [9 Companies]

1. Container Corporation of India Limited (CONCOR, 2011-2017)
2. Engineers India Limited (EIL, 2011-2017)
3. Hindustan Aeronautics Limited (HAL, 2011-2017)

4. Hindustan Petroleum Corporation Limited (HPCL, 2011-2017)
5. National Aluminium Company Limited (NALCO, 2011-2017)
6. National Buildings Construction Corporation Limited (NBCC limited, 2011-2018)
7. NMDC Limited (NMDC, 2011-2017)
8. Neyveli Lignite Corporation Limited (NLC India, 2011-2017)
9. Oil India Limited (Oil India, 2011-2017)

Sampling technique used in the study is purposive convenient sampling technique.

For this Research, secondary data is collected through various sources such as information given in Balance sheets and Annual reports from respective Company's websites. The activities done by companies before 3 years from 2014 and 3 years after 2014 have been analyzed to get results.

Hypotheses Testing

H_{01}: There is no significant difference between pre and post era of mandatory CSR expenditure in Maharatna companies of India.

H_{02}: There is no significant difference between pre and post era of mandatory CSR expenditure in Navratna companies of India.

Tools and Techniques of Data Analysis

The data has been analysed applying the Paired t-test for hypotheses testing at 5%.

Analysis and Interpretation

Maharatna Companies

Table 1 shows the average CSR expenditure spent by 7 Maharatna companies of CPSEs of India. From the table, it is apparent that all of selected companies have spent quite more on CSR post-mandatory provision era than pre-mandatory provision era. Coal India has highest impact of provisions as average spending has increased to Rs 623.28 crore from Rs 217.87 crore. NTPC has second highest impact of provisions as its spending on CSR activities went up by average Rs 246.64 crore from Rs 76.15 crores to Rs 322.79 crore followed by BPCL as its average spending went up from Rs 26.53 crores to Rs 115.92 crore. IOCL's CSR expenditure went up from Rs 81.67 crores to Rs 161.67 crores. CSR expenditure of GAIL, BHEL and SAIL also went up from Rs 60.55 crore to Rs 100.1 crore, Rs 26.78 crore to Rs 65.02 crore and Rs 35.07 crore to Rs 46.75 crore respectively.

Table 1: Average CSR expenditure of Maharatna companies

Maharatna	Pre-provision [2012-2014](X)	Post-provision [2015-2017] (Y)	Difference (X-y)	Squere of Diff. (X-y)2
BHEL	26.78	65.02	-38.24	1462.2976
Coal India	217.87	623.28	-405.41	164357.268
GAIL	60.55	100.1	-39.55	1564.2025
IOCL	81.67	161.67	-80	6400
NTPC	76.15	322.79	-246.64	60831.2896
SAIL	35.07	46.75	-11.68	136.4224
BPCL	26.53	115.92	-89.39	7990.5721

Source: Annual reports of selected companies from their official websites

Table 2: Paired t-test of Maharatna companies

N	Mean		S.D.		D.F	T_c	T_t	Result
	X	Y	X	Y				
7	74.9457	205.076	67.0017	205.867	6	2.39294	1.94318	H_1

Table 2 shows paired t-test of selected Maharatna companies of CPSEs in India. At 5% level of significance, Tc= 2.39294 whereas Tt = 1.94318. So, Tc is greater than the Tt. Therefore, the researcher can reject the null hypothesis indicating that there is a significant difference in CSR expenditure of selected Maharatna companies of India between pre-mandatory provision era and post-mandatory provision era.

Navaratna Companies

Table 3 shows the average CSR expenditure spent by 9 Navratna companies of CPSEs of India. From the table, it is visible that all of selected companies have spent a little more on CSR post-mandatory provisions era than pre-mandatory provisions era. NMDC has the highest impact of provisions as its spending on CSR went up from Rs 96.1833 crore to Rs 190.97.78 crore which is almost double the previous amount. Same goes for OIL India Ltd as its CSR spending went up to Rs 111.297 crore from Rs 56.14 crore. HPCL's CSR spending went up to Rs 71.3133 crore from Rs 22.7533 crore. In case of HAL, its CSR spending went from Rs 14.93 crores to Rs 53.07 crores. NLCL was having same effect as its CSR spending went from Rs 18.22 crore to Rs 55.54 crore. CCIL, EIL and NBCCL's CSR spending went from Rs 7.75 crore, Rs 4.4 crore and Rs 4.6767 crore to Rs 24.8733 crore, Rs 13.97 crore and Rs 7.22 crore respectively. Only NACL's CSR expenditure has decreased after provisions from Rs 31.4033 to Rs 25.39 crore.

Table 3: Average CSR expenditure of Navratna companies

CSR Expenditure (in crore)

Navaratna	Pre-provision [2012-2014] (X)	Post-provision [2015-2017] (Y)	Diff. (X-y)	Squere of Diff. (X-y)2
CCIL (CONCOR)	7.75333	24.8733	-17.12	293.093373
EIL	4.4	13.97	-9.57	91.5849
HAL	14.93	53.07	-38.14	1454.6596
HPCL	22.7533	71.3133	-48.56	2358.0736
NACL (NALCO)	31.4033	25.39	6.0133	36.1597769
NBCCL	4.6767	7.22	-2.5433	6.46837489
NMDC	96.1833	190.973	-94.7897	8985.08723
NLCL	18.2167	55.5367	-37.32	1392.7824
OIL India Ltd	56.14	111.297	-55.157	3042.29465

Source: Annual reports of selected companies from their official websites

Table 4: Paired t-test of Navratna companies

N	Mean		S.D.		D.F	T_c	T_t	Result
9	X	Y	X	Y				
	61.5159	28.4952	58.4132	30.1146	8	3.16304	2.306	H_1

Table 4 shows paired t-test of selected Navratna companies of CPSEs in India. At 5% level of significance, Tc= 3.16304 whereas Tt = 2.306. So, Tc is greater than the Tt. Therefore the researcher can reject the null hypothesis that there is a significant difference in CSR expenditure of selected Navratna companies of India between pre-mandatory provisions era and post-mandatory provisions era.

Major Findings

- It is observed from above analysis that in selected Maharatna companies of CPSEs of India, mandatory CSR provisions have a huge impact as after implementation of the provisions all the companies' CSR spending have gone up almost twice than that of before.
- In case of Navratna companies of CPSEs of India, all selected companies except NACL had increased their CSR spending almost twice the amount of average CSR spent before the Act.

Implications of the Study

i) This study will be helpful to identify the effectiveness of mandatory CSR provisions in India which will ultimately be helpful to understand various aspects of this Act.

ii) This study will be helpful for conducting further research to the research scholars, research institutes, general public as well as those who are directly or indirectly associated with CPSEs in decision-making.

Limitations of the Study

i) This research is based on secondary data which includes annual reports and information derived from websites. So the reliability and findings will be contingent upon the data published.

ii) This research is confined to CPSEs of India which are operated by Government of India.

iii) The time period of this study is of 6 years only i.e. 3 years before 2014 and 3 years after 2014.

Further Scope of the Study

i) This research is confined to CPSEs of India so researchers can opt for more public as well as private sector companies of India.

ii) The research is limited to 6 years only i.e. 3 years before 2014 and 3 years after 2014.

iii) Researchers can also opt for case studies or comparative studies by concentrating on any particular company or sector.

Conclusion

From above analysis it is visible that section 135 of The Indian Companies Act, 2013 does have positive effect on the corporate world as it makes companies aware regarding their responsibility towards society. All of Maharatna companies of Indian CPSEs were involved in CSR activities but due to the provisions more amount was spent in comparison to the era before the mandatory provisions. The amount spent by these selected companies were almost double, in some cases more than double the amount. Same results were derived in case of Navratna companies of Indian CPSEs as only National Aluminium Corporation Limited was spending less than that of before. Except NACL, all of the companies have invested more in these social activities from their profit. Most of the Navratna companies' CSR spending was doubled after the mandatory provisions. Thus, Indeed mandatory CSR provisions have huge impact on spending of CPSEs in India.

REFERENCES

Arevalo, J. A., & Aravind, D. (2015). Corporate Social Responsibility practices in India: Approach, Drivers and barriers. *Corporate Governance: The International Journal of Business in Society, 11*(4), 399-414. Retrieved August 14, 2018, from https://www.emeraldinsight.com/doi/abs/10.1108/14720701111159244

Gupta, K. L., & Arora, R. (2014). Corporate social responsibility in public sector enterprises in India. (pp. 1-21). Ahmedabad: Post Graduate Research Centre for Governance System, GTU. Retrieved August 12, 2018, from http://www.academia.edu/6138096/Corporate_Social_Responsibility_in_ Public_Sector_ Enterprises_in_ India

Kumar, P. N., & Reddy, P. M. (2012). Corporate Social Responsibility Practices In Steel Authority. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 41-46. Retrieved August 13, 2018, from http://www.iosrjournals.org/iosr-jhss/papers/ICIMS/Volume-1/7.pdf

Sai, P. S. (2017). A comparative study of CSR practices in India before and after 2013. *Asian Journal of Management Research, 7*(3), 242-255. Retrieved august 15, 2018, from http://www.ipublishing.co.in/ajmrvol1no1/volseven//EIJMRS7020.pdf

The Indian Journal of Commerce
Vol. 72, No. 2, April-June, 2019

Self-esteem and Work Engagement Influencing Job Satisfaction

SANGEETA SAHU, ABHINAV SRIVASTAVA AND AVINASH. D. PATHARDIKAR

Abstract: *– The present study aims to predict job satisfaction through self-esteem and work engagement. The study further aims to propose a model which highlights the relationships among self-esteem, work engagement, and job satisfaction. Sample was taken from 17 school teachers (n=630) working in the central part of Indian subcontinents. Structured questionnaires were distributed. Confirmatory factor analysis (CFA) followed by structural equation modeling (SEM) was conducted to establish the relationships. Mediation effect of work engagement was analyzed through the bootstrapping method. The result of the study strengthens the job characteristic model theory. The entire three hypotheses framed regarding the relationship between self-esteem, work engagement and job satisfaction were proved. The findings suggested that self-esteem has a significant influence on work engagement and job satisfaction. Further, work engagement partially mediated between self-esteem and job satisfaction among the school teacher. This study suggests that a teacher's job should be designed in such a way that they should feel their self-worth, which in turn helps to keep them engaged and satisfied.*

Keywords: Job satisfaction, Self-esteem, Work Engagement, Job characteristics, School teachers.

Introduction

Organizations are looking for ways to improve their employees' performance to achieve organizational goals. Researchers have identified job satisfaction as one of the ways to improve employees' performance (Lawler and Porter, 1969; Locke, 1970; McGivern and Tvorik, 1997) and job satisfaction still has been the area of interest for many researchers and practitioners. Various studies on job satisfaction have been conducted, which makes the literature-rich. More than thirty variables have been identified as antecedents or consequences of job satisfaction (Brown & Peterson, 1993). This gives ample scope to study this

Dr. Sangeeta Sahu is Associate Professor, Department of Business Administration, University of Lucknow, Lucknow (UP); Mr. Abhinav Srivastava is Research Scholar, Department of HRD, Veer Bahadur Singh Purvanchal University, Dr. Avinash. D. Pathardikar is professor Department of HRD, Faculty of Management Studies, Veer Bahadur Singh Purvanchal University, Jaunpur.

construct and its relationship with other variables to explore new ways of increasing satisfaction.

Hoppock (1935) defined job satisfaction as any combination of psychological, physiological, and environmental circumstances that cause a person to feel satisfied. According to this approach, job satisfaction is under the influence of many external factors, and it also remains something internal that has to do with the way how the employee feels. Job satisfaction presents a set of factors that cause a feeling of satisfaction. Later, Hackman and Oldham (1976) in his work, suggested five job characteristics which influence an employee's psychological state, leading to satisfaction and higher motivation. This study has taken self-esteem and work engagement as an employee's psychological state, predicting job satisfaction.

Sample taken in this study is school teachers. Past studies have identified teaching as a stressful occupation (Borg and Riding, 1991; Cherl and Cooper, 1996). A recent study on Indian school teachers has also revealed that they are experiencing occupational stress (Dua and Sangwan, 2017). Imposed and centralized system accountability, lack of professional autonomy, responsibilities of the non-academic task, frequently imposed changes, reduced resources, and moderate pay all leads to low teacher satisfaction (Van den Berg, 2002; Scott *et al*., 2001; Vandenberghe and Huberman, 1999). The effects of these trends are leading to low job satisfaction, reduced ability to perform, significant incidences of psychological disorders (Farber, 1991; Troman and Woods, 2000). Most importantly, dissatisfaction amongst teachers is the leading cause of teachers leaving the teaching profession (Huberman, 1993; Woods *et al*.,1997).

Conceptual Framework

Various antecedents have been identified for job satisfaction, and studies suggest many ways to increase job satisfaction among employees. Hackman and Oldham (1976) linked job satisfaction with job characteristics and job characteristics theory (JCT) in which they posit that five core characteristics of any job, namely; autonomy, skill variety, task identity, task significance, and feedback lead to personal and job-related outcomes via three psychological states of employees experiencing meaningfulness, responsibility, and knowledge of results. In the job characteristics model, they have suggested that these aspects of an individual's job, shape their perceptions about the job. These include; jobholder's internal motivation at work and jobholder's satisfaction (Hackman and Oldham, 1976). The psychological states were also linked with outcome variables as internal work motivation, job satisfaction, absenteeism, turnover, and work quality (Hackman *et al*., 1975; Wanous, 1974).

The job characteristic theory indicated the relationship of psychological meaningfulness with job satisfaction. In this study, we have taken this model as a base to conceptualize job satisfaction as a function of work engagement and self-esteem, where work engagement and self-esteem have been taken as a meaningfulness aspect in which self-esteem was taken at the place of task identity. Earlier studies also have established a relationship between psychological meaningfulness and satisfaction (Kahn, 1990; May *et al*., 2004). These studies indicated that meaningfulness of work leads to many significant attitudinal outcomes (job satisfaction and intrinsic motivation) and behavioral outcomes (performance and absenteeism).

Job Satisfaction

Hoppock (1935) defines job satisfaction about psychological, physiological, and social factors. An individual should feel satisfied physically, psychologically, and socially to attain job satisfaction. Previous studies have identified the importance of job satisfaction as it has relationship to its associations with work performance, physical and mental health and career decisions (Caprara *et al*., 2003; 2006; Fritzsche and Parrish, 2005; Judge *et al*., 2001; Skaalvik and Skaalvik, 2009). Job satisfaction consists of both internal and external satisfaction. Internal satisfaction is about an individual's enjoyment aspect of his jobs, such as excitement autonomy, accomplishment responsibilities, and opportunities.

On the other hand, external satisfaction is about enjoyment obtained from job's environment which includes salary and benefits, opportunities for advancement, effective operation, along with efficient organization and decision making (Kalleberg, 1977; Porter *et al*., 1974). The literature on Job satisfaction indicates many antecedents which includes work characteristics such as; task autonomy, task significance, skill variety, participation, influence over standards, innovativeness required, job involvement, value congruence, and pay (Becherer *et al*., 1982; Dubinsky and Skinner 1984). In general, higher job satisfaction appears to be associated with more significant, challenging, and varied tasks, with a more considerable amount of participation and involvement, with shared values and with higher pay.

Work Engagement

Work Engagement has attracted much attention in recent times. This popularity is because it claims to predict both individual-level outcomes and organizational level performances (Macey *et al*., 2009; Saks, 2006; Shuck *et al*., 2011). Kahn (1990), was one of the pioneers to study engagement, he defined, personal engagement as the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performance. According to him, there are three psychological conditions namely; meaningfulness (feeling about job tasks are essential), safety (social elements including management style, process, and organizational norms) and availability (individual distractions). Employees express themselves at three levels; physically, cognitively, and emotionally during role performances. Thus, engagement is about one's psychological involvement in his role (Kahn, 1990). May *et al*., (2004) also highlighted that psychological meaningfulness is a component of work engagement, which in later studies have been linked with attitudinal outcomes such as; satisfaction, motivation, and turnover intention and behavioral outcomes such as; performance and absenteeism.

Self-esteem

Self-esteem is the overall evaluation of one's worth or value (Rosenberg, 1965). Self-esteem is referred as what an individual perceives about himself and his competency which is influenced by the role he is playing (Korman, 1970; Rosenberg *et al*., 1995; Simpson and Boyle, 1975). Studies on self-esteem have established self-esteem as a predictor of organizational, behavioral, and attitudinal outcomes (Rosenberg *et al*., 1995; Brockner, 1988; Korman, 1970, 1976). It has many important organizational outcomes such as; self-efficacy, job performance (Judge *et al*., 2001), conscientiousness, extraversion, and emotional stability (Robins *et al*., 2001). High self-esteem has been regarded as one of the basic requirements of personal wellbeing, happiness, and adjustment (Diener and Diener, 2009). This has also been established that individuals with higher self-esteem are more satisfied with their lives, less interpersonal problems, achieves more, lower psychological problems (anxiety and depression) and physical illness than those with lower self-esteem.

Literature review

Self-esteem and Work Engagement

Self-esteem is an overall evaluation of his worth or value (Rosenberg, 1965). Studies on self-esteem show that the influence was observed at situational and task level (Simpson and Boyle, 1975; Pierce and Gardener, 2004). Studies conducted also indicate that self-esteem is a predictor of employee attitude and its relationship with other variables. (Rosenberg, 1995; Brockner, 1988; Korman, 1970, 1976), one such variable is work engagement (Maslach *et al*., 2001). Recently, in a study relationship of self-esteem with work engagement was studied by Kim and Hyun (2017), where he found that self-esteem had a positive impact on work engagement. Job characteristics such as compensation, reward, and recognition enhance social status leading to higher self-esteem, which affects work engagement (Saks, 2006; Fairlie, 2011). Crawford *et al*. (2014) also found that self-esteem contributes to developing work engagement. They identified job challenges; autonomy, rewards & recognition are the antecedents of work engagement. Shuck *et al*., (2010) in his work advocated that this relationship by linking engagement with Maslow's higher-order need (Shuck *et al*., 2010). Thus, we propose:

H1: *Self-esteem influences work engagement positively.*

Work Engagement and Job Satisfaction

Saks (2006) reviewed many studies of the past years on various antecedents and consequences intensively. Many antecedents of engagement have been identified as an outcome.

Studies so far have linked engagement positively with antecedents like job characteristics (Kittredge, 2010); rewards & recognition (Fairlie, 2011).

Job characteristics play an essential role in engaging employees as engaged employees put more efforts into their work if they can identify with it. Job characteristics feature among the most critical work characteristic variables in predicting work engagement (Janjhua, 2011; Ram and Prabhakar, 2011) and each of its dimensions: vigour, dedication, and absorption (Kittredge, 2010). Job characteristics have featured in most models of work engagement (Bakker and Demerouti, 2007). For instance, in two meta-analyses (Fried and Ferris, 1987; Humphrey *et al*., 2007), all the five job characteristics have shown a strong correlation with job satisfaction, internal work motivation and growth satisfaction. Such findings demonstrate the relevance and applicability of the job characteristic model (Hackman and Oldham, 1976) in developing work engagement, as these outcomes are related to work engagement. Similar findings have been established by May *et al*. (2004) and Saks (2006). Xanthopoulou *et al*. (2009) and Bakker and Leiter (2010) have concluded that autonomy is positively associated with engagement. Christian *et al*. (2011) have established autonomy, skill variety, task significance, and feedback to have a positive influence on the engagement. Thus, we propose;

H2: *Work Engagement influences job satisfaction positively.*

Self-esteem and Job Satisfaction

Self-esteem refers to one's feelings regarding his or her value, or it is to considered oneself as a valuable person. This kind of feeling comes from all of the thoughts, emotions, feelings, and experiences in one's life.

On the other hand, job satisfaction is about the mental and spiritual enjoyment that one gains from his or her job through the satisfaction of needs, interests, and hopes. Hoppock (1935) defines job satisfaction concerning psychological, physiological, and social factors. The definition indicates that an individual need to be satisfied at three levels physically, psychologically, and socially to attain job satisfaction. Since this definition relates satisfaction with psychological and social satisfaction of an individual, it indicates its connection with self-esteem. Past studies have also established the relationship between self-esteem and job satisfaction. Biabangard (1997) in his work, says that personal satisfaction is very much influenced by the value they give to themselves, he also stated that job-dissatisfaction is one of the symptoms of people with low self-esteem. Individuals with high self-esteem are mainly interested in cooperation with others. Later, Cherabin *et al*. (2012) also found a significant relationship between self-esteem and job satisfaction. Thus, we hypothesize;

H3: *Self-esteem influences job satisfaction positively.*

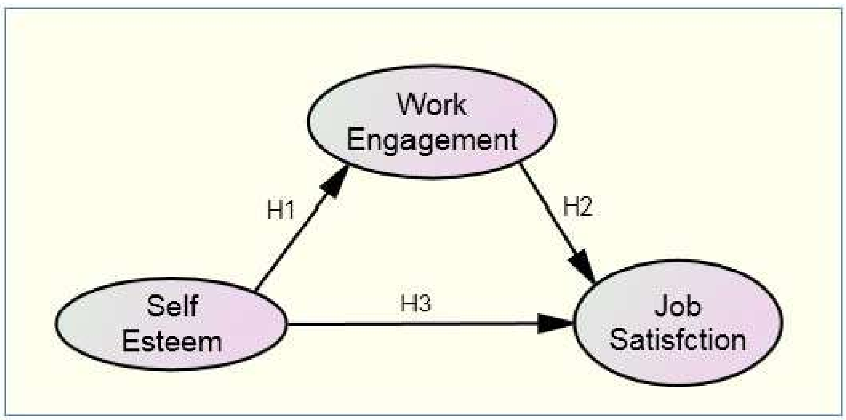


Figure 2: Hypothesized model

Method

Sample and data collection

Initially, 675 teachers of secondary school boards in eastern Uttar Pradesh were contacted for this research. Six hundred forty-five survey questionnaires were returned, and 630 were used for the analysis (93 percent) as remaining 15 questionnaires were incompletely filled. Six hundred thirty responses are good enough to conduct structural equation modeling (SEM) analysis (Kline, 2001; Shah and Goldstein, 2006). The sample consists of an appropriate mix of both genders as it consists of 295 females (46.8 percent) and 335 males (54.2 percent). The age of the subjects ranging from 25 to 60 years (Mean=38.61; Standard deviation=10.56). The sample consists of teachers with 1 to 38 years. The sample includes three education boards, namely; Uttar Pradesh board, Central board of secondary education (CBSE) and Indian certificate of secondary education (ICSE) including government schools. To ensure the fair representation of the sample, we have adapted the stratified sampling method because it allows logically covering a large population. We have taken reputed five schools from each district of eastern Uttar Pradesh having student strength of 500 or more. Data was collected through a printed questionnaire.

Measurement

The questionnaire was divided into two parts. First part seeks demographic information like age, gender, qualification. and the second part includes items relating to job satisfaction, self-esteem, and work engagement. The Cronbach's alpha reliability coefficient of these variables as found from good to excellent (.61 to .91).

Job Satisfaction

3-item scale developed by Cammann *et al*. (1983) was used to measure satisfaction. The scale consists of item such as "All in all, I am satisfied with my job." The responses were recorded on five points Likert's scale indicating 1 for 'strongly disagree,' and 5 for 'strongly agree.' The original reliability of the scale was reported .70, which was good, and here in this study, the reliability was found α= 0.61, which is quite acceptable.

Self-esteem

Rosenbers's (1965) 10-item standardized scale was used to measure self-esteem. This scale has been used widely in various studies (Blascovich and Tomaka, 1991; Gray-Little *et al*., 1997) and received more psychometric analysis and empirical validation than any other scale (Gray-Little *et al*., 1997). The responses were recorded on 0 to the 4-point scale. 0 indicates 'strongly disagree' and 4 indicates 'strongly agree.' Participants were asked to show their level of agreement with each statement. Sample item includes "I take a positive attitude toward myself." To ensure internal consistency of the scale, an item showing low factor loading have been omitted for further analysis (Hinkin *et al*.; 1997). Alpha reliability coefficient was reported good in the study (á=0.74).

Work Engagement

9-item scale developed by Schaufeli and Bakker (2003) has been adopted for measuring work engagement. The scale is a shortened version of the Utrecht work engagement scale of 17 items. The response of items ranging from 0 to 6 was recorded. 0 indicates 'Never,' and 6 indicate 'Always.' An item as an example is '*I am enthusiastic about my job*.' The alpha reliability coefficient was reported excellent (á= 0.91), which is very close to (á= 0.92) the reliability established by Schaufeli, Bakker, and Salanova, 2006).

Procedure

A two-step procedure was adopted to test the proposed hypotheses (Anderson and Gerbing, 1988; Medsker *et al*., 1994). The first step includes correlation analysis, mean, standard deviation followed by CFA to examine the self-reported to establish the discriminant validity of the measures.

In the second step, CFA followed by SEM was conducted with all variables. Different fit indices were chosen to assess the goodness of fit of the model namely; Goodness-of-fit index (GFI), Comparative fit index (CFI), Increment fit index (IFI), Normed fit index (NFI), and Root mean square error of approximation (RMSEA) (Bentler, 1990; Bentler and Bonett, 1980). To identify the distinct characteristics of the variables, CFA was conducted with all variables taken into the model.

Results

Pearson's correlation coefficients were found, ranging from 0.329 to 0.433 ($p<0.01$) of the variables taken in the study (Table 1).

Cronbach's á is obtained under the assumption of parallelity, i.e., all factor loadings and all error variances are constrained to be equal. Cronbach's á may over or underestimate reliability (Raykov, 1998). To overcome this composite reliability and average variance extracted were calculated and found sound psychometric properties of the measures used (see –Table-I). The AVE value should be higher than .50 and more than from CR. The CR value should be .70. Items less than 10 in the same construct may give low reliability (Nunnaly, 1973)

Table 1 : Descriptive statistics, reliabilities correlations

Sl.	Variables	Range	Mean	SD	CR	AVE	1	2	3
1	Age	59	38.61	10.56					
2	Experience	35	7.7	7.03					
3	Job Satisfaction	3-15	12.99	1.99	.614	.350	(.61)		
4	Self-esteem	00-40	32.71	4.6	.654	.503	.353	(.74)	
5	Work Engagement	00-54	48.60	6.64	.908	.525	.329	.433	(.91)

Notes: n=630;**p<0.01 level (2-tailed).
Values given in the parenthesis are á reliability coefficients;

Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM)

CFA established distinctness of the constructs through software package Analysis of Moment Structure (AMOS-18). The acceptable higher limit of χ^2/df ratio should be below 5 (Wheaton *et al*., 1977). In this study, self-esteem measure, ratio has been reported beyond five, which may be due to less than ten items in the construct (Hair *et al.*, 2006). Values of different fit indices; GFI, IFI, CFI, NFI greater than 0.90 considered as good fit and RMSEA values 0.05 or less indicate close fit; between 0.05 to 0.08 indicate reasonable fit and values between 0.08 to 0.10 show marginal fit (Kline, 2001).

The CFA results show that all variables have strong psychometric properties and exhibit distinct characteristics from each other. The fit indices were acceptable. The hypothesized model fits the data adequately ($\chi 2$/df=3.70; GFI=.90; NFI=.87; IFI=.90; TLI=.88; CFI=.90; RMSEA=.06).

After CFA, SEM was conducted (Table 2) with all three variables. SEM analysis clearly shows superiority of model ($\chi 2$/df=2.652; GFI=0.959; NFI=0.950; IFI=0.968; TLI=0.959; CFI=0.968; RMSEA=0.051). The model was improvised after allowing three modification indices (Steiger, 1990). Self-esteem was taken as an exogenous variable and predicted work engagement (directly), Job satisfaction (directly and indirectly) (Figure-1).

From Table-2, it is evident that self-esteem explained 33 percent of variance (R^2=.33) in explaining work engagement (SEàEE) and shows the significant relationship (β=.575, p<.0001)whereas, self-esteem through work engagement (SE$\rightarrow$EE$\rightarrow$JS) contributed 35 percent of the variance in explaining work engagement in the model.

Mediation analysis was also conducted with the bootstrapping method (Hayes, 2013). Bootstrapping is a nonparametric approach to mediation tests that do not make assumptions about the sampling distribution of the mediation test. Partial mediation can be inferred when both the direct and indirect effect of predicting variables on the outcome variable is significant. The direct and indirect impact of role self-esteem and work engagement was found significant (Table 2), which suggests that there is partial mediation (Hayes and Preacher, 2014).

In this study, the standardized total effect of self-esteem on job satisfaction through work engagement (SE$\rightarrow$EE$\rightarrow$JS) was found significant (β''=.564, p<.001).

Table-II Relationship in the confirmed model

Model	Direct Effect Standardized (β)	Indirect Effect Standardized Effect (β')	Standardized total effect (β'')	R^2	Mediation
SE ? EE	.575***			.331	
SE? JS	.448***				
EE?JS	.203*				
SE?EE?JS	.46**	.116*	.564***	.446	Partial Mediation

***=p<0.0001; =p<0.05;

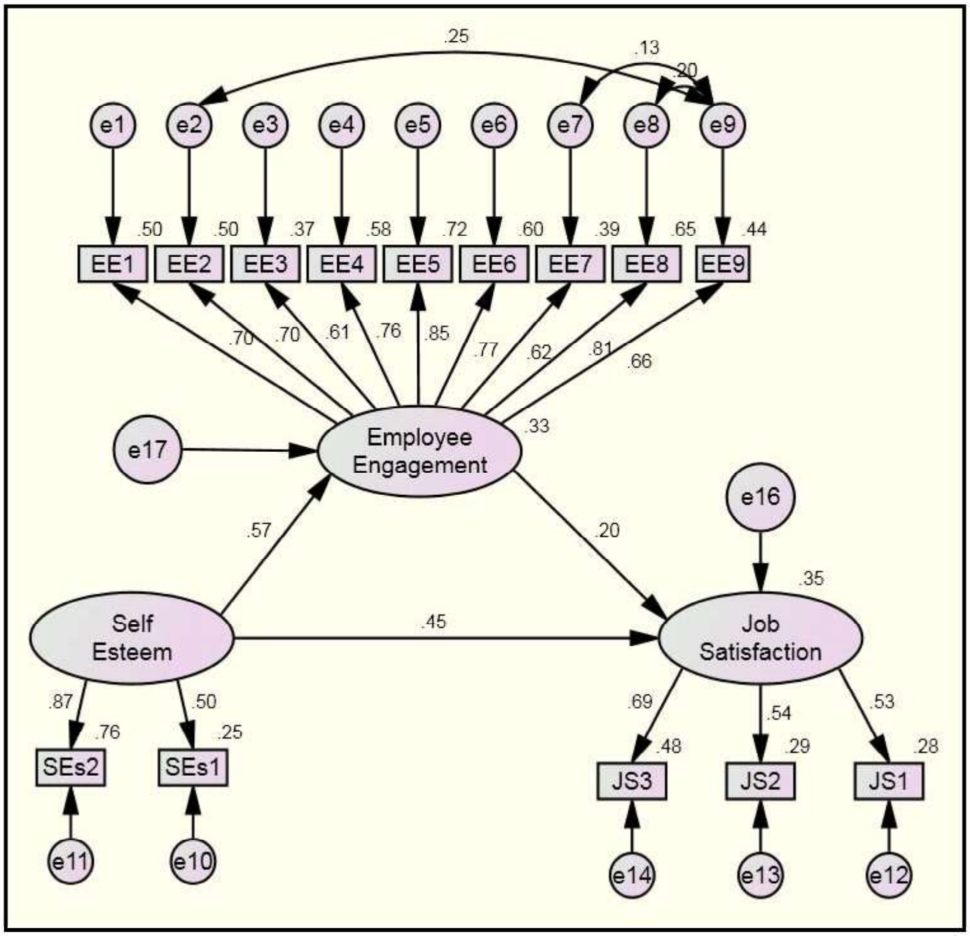


Figure 2: Model confirmed

Discussion

This study has considered Hackman and Oldham's model (1976) as a base to predict job satisfaction. The study aims to predict job satisfaction through work engagement and self-esteem. The findings of this study significantly established an association between self-esteem, work engagement, and job satisfaction. The findings are in line with the earlier studies, the first hypothesis (H_1) taken in the study posits that self-esteem will influence job satisfaction positively. Consistent with Pierce and Gardiner's (2004) review of previous empirical studies, which found that an individual's self-esteem plays a vital role in shaping job satisfaction. The results obtained indicate that those employees who are having higher self-esteem at work are more satisfied than with those who have low self-esteem. Employee feeling self- worth or feels valued in the organization would be more satisfied.

Similarly, our findings supported well with our second hypothesis (H_2), assuming an employee with a feeling of self-worth are more engaged. Past studies show that employees with higher self-esteem are more likely to be engaged (Farlie, 2011; Crawford *et al*., 2014). Xanthopoulou *et al*. (2009) also examined the relationships between self-esteem and engagement and found that engaged employees tend to exhibit a higher level of self-esteem. Later, Bakker and Demerouti (2008) posited this relationship through job resources. They referred to self-esteem as a job resource which helps the employee to feel good about him and keeps them engaged.

The third hypothesis (H_3) was also supported in this study, which assumes that work engagement will lead to job satisfaction. The result obtained is in line with past studies on job satisfaction and engagement. Shuck and Wollard (2010), in his review on work engagement, also identified the concept of engagement in four dimensions. One of them was satisfaction and referred to engagement as a technical version of satisfaction.

Job characteristics model by Hackman and Oldham (1976) posits five characteristics of the job to give satisfaction are; skill variety, task identity, task significance, autonomy, and feedback. An individual's task should be identified and recognized and gives a boost to the self-image and feels self-worth and thereby would be more satisfied. The model referred to the first three characteristics as critical psychological states. The study considers this psychological part of predicting satisfaction. Engagement and self-esteem both are psychological construct and have been determining in predicting behavioral and attitudinal outcomes (Kahn,1990; Bakker and Demerouti, 2007).

Teacher's best performance can be achieved when the teachers are satisfied. Importance of satisfied teachers is even more at secondary schools (Alwi *et al*. 2015; Pilarta, 2015). This paper gives insight to create satisfaction among school teachers through ensuring psychological involvement. Findings of the study show that teachers with self-esteem would be engaged and will exhibit job satisfaction, which may lead to higher output at work.

Conclusion

Indian teachers are undergoing through extra burden. This has led to a feeling of discontentment and dissatisfaction among them (Ramachandran, 2005, Indian Express, 5 September 2017). The problem of disengagement amongst school teachers due to additional administrative responsibilities is common in Indian school (Dua and Sangwan, 2017). This study suggests a way to develop job satisfaction through self-esteem and work engagement. The study proposed a model which gives an insight into the relationship between work engagement, self-esteem, and job satisfaction. The findings of this study indicate that satisfaction among teachers can be achieved through developing self-worth and keeping them engaged.

Limitations and Practical Implications

This study has some limitations. The research is based on self-reported measures and may have a socially desirable option, so their chances of method bias (Crowne and Marlowe, 1964). To overcome this, we have conducted Hermans single factor analysis. Total 32.96 percent variance was explained, which is far below from the threshold limit of 50 percent, proving there is no method bias in the responses (Podsakoff *et al*., 2003).

Although the literature on job satisfaction is sufficient, and many antecedents have been identified, but this study is unique in its way. Firstly, this study has a unique set of variables, and their interrelationship has been studied. Second, this study is unique in terms of the sample. Studies with teachers' satisfaction as an outcome have been conducted in western countries (Awoniyi and Tsitsi 2013; Abdullah and Hui 2014). There was a need to conduct such research in the collectivist culture (Hofstede, 2001) like India as demography is varied from that of western society on many dimensions such as culture, tradition, and governance (Fegley,2006).

This study provides a significant finding as it addresses the issue of increasing satisfaction through work engagement, through self-worth. The results of this study suggest that the policymakers/administrators should make their effort in developing self-esteem, which would help them to keep them engaged, leading to satisfaction.

Studies can also be taken up in the future on different samples like; regional variation, invariance analysis of different school boards. Also, future research should be directed towards examining the relationships in higher studies like college and university level and other sectors. Apart from this, the study has considered the psychological dimension of job characteristics. Further studies could be conducted with other dimensions, also, which may lead to new outcomes.

REFERENCES

Abdullah, V. and Hui J. (2014). The relationship between communication satisfaction and teachers' job satisfaction in the Malaysian primary school. *Asian Journal of Humanities and Social Sciences*, 2(2): 58-71.

Alwi, S.K.K., Rauf, M.B. and Haider, K. (2015). Teachers' job satisfaction and the role of principles for effective educational system in secondary schools of Karachi, Pakistan. *Research Journal of Educational Sciences*, 3(2): 1-5.

Anderson, J.C. and Gerbing, D.W. (1988). Structural equation modeling in practice: a review and recommended two-step approach. *Psychological Bulletin*. 103(3): 411-423.

Awoniyi, S.A. and Tsitsi, G. (2013). Dimensions of teachers' job satisfaction in primary schools in Gweru District, Zimbabwe: A factor analysis. *European Scientific Journal*. 9(25): 309-317.

Bakker, A.B. and emerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*. 22(3): 309-328.

Bakker, A.B. and Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*. 13(3): 209-223.

Bakker, A.B. and Leiter, M.P. (2010). Engagement: A Handbook of Essential Theory and Research (Eds), Psychology Press, Hove: 1-9.

Becherer, R.C., Morgan, F.W. and Richard, L.M. (1982). The job characteristics of industrial salespersons: Relationship to motivation and satisfaction. *The Journal of Marketing*. 125-135.

Bentler, P.M. and Bonett, D.G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3): 588-606.

Bentler, P.M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*. 107(2): 238-246.

Biabangard, E. (1997). The methods of increasing self-esteem in children and adolescents. *Tehran: Islamic Republic of Iran Guardians and Teachers Society*, 19.

Blascovich, J. and Tomaka, J. (1991). Measures of self-esteem. *Measures of Personality and Social Psychological Attitudes*. 1: 115-160

Borg, M.G. and Riding, R.J. (1991). Occupational stress and satisfaction in teaching. *British Educational Research Journal*. 17(3): 263-281.

Brown, S. P. and Peterson, R. A. (1993). Antecedents and consequences of salesperson job satisfaction: Meta-analysis and assessment of causal effects. *Journal of Marketing Research*. 30(1): 63-77.

Cammann, C., Fichman, M., Jenkins, D. and Klesh, J. (1983). Assessing attitudes and perceptions of organizational members. In S. Seashore, E. Lawler, P. Mirvis& C. Cammann (Eds.). Assessing organizational change: A guide to methods, measures and practices. New York: Wiley.

Caprara, G.V., Barbaranelli, C., Borgogni, L. and Steca, P. (2003). Efficacy beliefs as determinants of teachers' job satisfaction. *Journal of Educational Psychology,* 95(4): 821-832.

Caprara, G.V., Barbaranelli, C., Steca, P. and Malone, P.S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, 44(6): 473-490.

Cherabin, M., Praveena, K. B., Azimi, H. M., Qadimi, A., and Shalmani, R. S. (2012). Self-esteem, job satisfaction and organizational commitment of faculty members of secondary level teacher training programme in Mysore (India). *Life Science Journal*, *9*(4): 204-214.

Christian, M.S., Garza, A.S. and Slaughter, J.E., (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64(1): 89-136.

Wford, E.R., Rich, B.L., Buckman, B. and Bergeron, J. (2014). The antecedents and drivers of Work Engagement, in Truss, Catherine, Alfes, Kerstin, Delbridge, Amanda Shantz, Rick, Soane, Emma (Eds), Work Engagement in theory and practice. 57-81.

Diener, E. and Diener, M., (2009). Cross-cultural correlates of life satisfaction and self-esteem, In Culture and well-being. Springer, Dordrecht. 71-91.

Dua, K. and Sangwan, V. (2017). Study on stress among female high school teachers of Haryana, *International Journal of Indian Psychology*, 4(2): 116-121

Dubinsky, A.J. and Skinner, S.J., (1984). Impact of job characteristics on retail salespeople's reactions to their jobs. *Journal of Retailing*. *60*(2): 35-62.

Fairlie, P., (2011). Meaningful work, Work Engagement, and other key employee outcomes: Implications for human resource development. *Advances in Developing Human Resources*, 13(4): 508-525.

Farber, B.A. (1991). Crisis in Education: Stress and Burnout in the American Teacher. Jossey-Bass, San Francisco, CA.

Fegley, S. (2006). Talent Management Survey Report. *SHRM Research*. Alexandria, VA.

Fried, Y. and Ferris, G.R., (1987). The validity of the job characteristics model: A review and meta analysis. *Personnel Psychology*, 40(2): 287-322.

Fritzsche, B.A. and Parrish, T.J., (2005). Theories and research on job satisfaction. Career development and counseling: Putting theory and research to work, pp.180-202.

Gray-Little, B., Williams, V.S. and Hancock, T.D. (1997). An item response theory analysis of the Rosenberg Self-Esteem Scale. *Personality and Social Psychology Bulletin,* 23(5): 443-451.

Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16(2): 250-279.

Hackman, J.R., Oldham, G., Janson, R. and Purdy, K., (1975). A new strategy for job enrichment. *California Management Review*, 17(4): 57-71.

Hair, J., Black, W., Babin, B., Anderson, R., &Tatham, R. (2006). Multivariate data analysis (6th ed.). Upper saddle River, N.J.: Pearson Prentice Hall

Hayes, A.F., (2013). Introduction to mediation, moderation, and conditional process analysis: a regression-based approach. Guilford Press, New York, NY.

Hayes, A.F., and Preacher, K.J. (2014). Statistical mediation analysis with a multi-categorical independent variable. *British Journal of Mathematical & Statistical Psychology,* 67(3): 451-470

Hinkin, T. R., Tracey, J. B., & Enz, C. A. (1997). Scale construction: Developing reliable and valid measurement instruments. *Journal of Hospitality & Tourism Research*, *21*(1): 100-120.

Hofstede, G. (2001). Culture's consequences: Comparing values, behaviors, institutions and organizations across nations. Sage publications.

Hoppock, R. (1935). Job Satisfaction, Harper and Brothers, New York, p. 47

Belur, Rashmi (2017). 65 per cent teachers are not happy with their jobs, Indian Express, Bengaluru accessed from http://www.newindianexpress.com/cities/bengaluru/2017/sep/05/65-per-cent-teachers-are-not-happy-with-their-jobs-1652619.html accessed on 10 September 2018.

Huberman, M. (1993). The model of the independent artisan in teachers' professional relations. *Teachers' Work: Individual, Colleagues, and Contexts*. Editors Judith Warren Little & Milbury Wallin McLaughlin. New York: Teachers College Press.

42. Humphrey, S.E., Nahrgang, J.D. and Morgeson, F.P., (2007). Integrating motivational, social, and contextual work design features: a meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, 92(5): 1332-1356.

Janjhua, Y. (2011). Work Engagement: A Study of HPSED Employees. *International Journal of Research in IT & Management*. 1(6): 74-89.

Judge, T. A., Thoresen, C. J., Bono, J. E., and Patton, G. K. (2001). The job satisfaction-job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127(3): 376-407.

Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*. 33(4): 692-724.

Kalleberg, A.L. (1977). Work values and job rewards: A theory of job satisfaction. *American Sociological Review*. 42(1):124-143.

Kim, W. and Hyun, Y.S., (2017). The impact of personal resources on turnover intention: The mediating effects of work engagement. *European Journal of Training and Development*. 41(8): 705-721.

Kittredge, Andrea. (2010). Predicting Work and Organizational Engagement with Work and Personal Factors. Master's Theses. 3771. DOI: https://doi.org/10.31979/etd.zx9f-e3wx https://scholarworks.sjsu.edu/etd_theses/3771

Kline, R. (2001). The principles and practices of structural equation modeling, The Guilford Press: New York, NY.

Korman, A.K. (1970). Toward a hypothesis of work behavior. *Journal of Applied Psychology*, 54(1): 31-41.

Korman, A.K. (1976). Hypothesis of work behavior revisited and an extension. *Academy of Management Review*, 1(1): 50-63.

Lawler, E.E and Porter, L.W. (1969). The effect of performance on Job Satisfaction. *Industrial Relation*. 7(1): 20-28

Locke, E. A. (1970). Job satisfaction and job performance: A theoretical analysis. *Organizational Behavior and Human Performance*. 5(5): 484-500.

Macey, W. H., Schneider, B., Barbera, K. M., and Young, S. A. (2009). Work Engagement: Tools for analysis, practice, and competitive advantage. Malden, WA: Wiley Blackwell.

Maslach, C., Schaufeli, W.B. and Leiter, M.P. (2001). Job burnout, *Annual Review of Psychology*. 52(1): 397-422.

May, D.R., Gilson, R.L. and Harter, L.M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*. 77(1): 11-37.

Medsker, G.J., Williams, L.J. and Holahan, P.J. (1994). A review of current practice for evaluating causal models in organizational behavior and human resources management research. *Journal of Management*, 20(2): 439-464.

Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill

Pierce, J.L., and Gardner, D.G. (2004). Self-esteem within the work and organizational context: A review of the organizational-based self-esteem literature. *Journal of Management,* 30(5): 591– 622

Pilarta M.A.B. (2015). Job satisfaction and teachers' performance in Abra State Institute of Sciences and Technology. *Global Journal of Management and Business Research*, 15(4): 81-85

Podsakoff, P.M., MacKenzie, S.B., Lee,J.-Y.andPodsakoff, 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.

Porter, L. W., Steers, R. M., Mowday, R. T., &Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*. *59*(5): 603-609.

Ram, P. and Prabhakar, G.V. (2011). The role of Work Engagement in work-related outcomes. *Interdisciplinary Journal of Research in Business*, 1(3): 47-61.

Ramachandran, V. (2005). Why school teachers are demotivated and disheartened. *Economic and Political Weekly*, 40(21): 2141-2144.

Raykov, T., (1998). Coefficient alpha and composite reliability with interrelated nonhomogeneous items. *Applied Psychological Measurement,* 22(4): 375-385

Robins, R.W., Tracy, J.L., Trzesniewski, K.H., Potter, J. and Gosling, S.D. (2001). Personality correlates of self-esteem. *Journal of Research in Personality*. 35(4): 463-482

Rosenberg, M. (1965). Rosenberg self-esteem scale (RSE), Acceptance and Commitment Therapy. Measures Package, p. 61

Rosenberg, M., Schooler, C., Schoenbach, C. and Rosenberg, F. (1995). Global self-esteem and specific self-esteem: Different concepts, different outcomes. *American Sociological Review*. 60(1): 141-156

Saks, A.M. (2006). Antecedents and consequences of Work Engagement. *Journal of Managerial Psychology*. 21(7): 600-619

Schaufeli, W.B. and Bakker, A.B. (2003). UWES–Utrecht work engagement scale: test manual, Unpublished Manuscript: Department of Psychology, Utrecht University.

Schaufeli, W.B., Bakker, A.B. and Salanova, M. (2006). The measurement of work engagement with a short questionnaire: a cross-national study. *Educational and Psychological Measurement.* 66(4): 701-716.

Scott, C., Stone, B., &Dinham, S. (2001). I love teaching but." International patterns of teaching discontent. *Education Policy Analysis Archives*, 9(28): 1-7. Available at http://epaa.asu.edu/epaa/v9n28.html.

Shah, R. and Goldstein, S.M. (2006). Use of structural equation modeling in operations management research: Looking back and forward. *Journal of Operations Management,* 24(2): 148-169.

Shuck, B. and Wollard, K. (2010). Work Engagement and HRD: a seminal review of the foundations. *Human Resource Development Review*. 9(1): 89-110

Shuck, B., ReioJr, T.G. and Rocco, T.S. (2011). Work Engagement: An examination of antecedent and outcome variables. *Human Resource Development International*, 14(4): 427-445

Simpson, C.K. and Boyle, D. (1975). Esteem construct generality and academic performance. *Educational and Psychological Measurement.* 35(4): 897-904

Skaalvik, E.M. and Skaalvik, S. (2009). Does school context matter? Relations with teacher burnout and job satisfaction. *Teaching and Teacher Education*, 25(3): 518-524.

Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research*. 25(2): 173-180

Cherl, J., and Travers, C. L. C. (1996). Teachers under pressure: Stress in the teaching profession. Routledge, London and New York.

Troman, G. and Woods, P. (2000). Careers under stress: teacher adaptations at a time of intensive reform. *Journal of Educational Change*, 1(3): 253-275.

McGivern, M. and Tvorik, S. (1997). Determinants of organizational performance. *Management Decision*. 35(6): 417-435.

Van den Berg, R. (2002). Teachers' meanings regarding educational practice. *Review of Educational Research*, 72(4): 577-625.

Vandenberghe, R., and Huberman, A. M. (Eds.). (1999). Understanding and preventing teacher burnout: A sourcebook of international research and practice. Cambridge University Press.

Wanous, J.P. (1974). A causal-correlational analysis of the job satisfaction and performance relationship. *Journal of Applied Psychology*, 59(2): 139-144.

Wheaton, B., Muthen, B., Alwin, D., F., and summers, G. (1977). Assessing Reliability and Stability in Panel Models, *Sociological Methodology*, 8(1): 84-136.

Woods, P., Jeffrey, B., Troman, G. and Boyle, M. (1997). Restructuring Schools; Reconstructing Teachers: Responding to Change in the Primary School, Open University Press, Buckingham.

Xanthopoulou, D., Bakker, A.B., Demerouti, E. and Schaufeli, W.B. (2009). Reciprocal relationships between job resources, personal resources, and work engagement. *Journal of Vocational Behavior,* 74(3): 235-244.

The Indian Journal of Commerce
Vol. 72, No. 2, April-June, 2019

A Study of the Factors Influencing Women Entrepreneurship Development

SANJAY KUMAR SINHA AND JYOTI RANI

Abstract: *The paper is an attempt to throw light on factors influencing women entrepreneurship development in Haryana. A sample of 400 respondents was selected randomly out of total women entrepreneur in the villages of district Jind of Haryana. The study is purely based on primary data and revealed that 55.2 percent respondents are aged between 31-45 years that indicates that they are young and energetic in nature; Majority i.e., 68.2 percent of the women entrepreneurs in the state of Haryana are involved in servicing activities. The facilitating services that influenced them to start entrepreneurial enterprise was ranked second, followed by the ambition and compelling reasons.*

Keywords: Ambition, Compelling Reasons, Facilitating Factors and Support Factors.

Introduction

"Entrepreneurship is the route of wealth creation. When a person takes up a business or other such activities, it is termed as entrepreneurship. Entrepreneurship starts with the commencement of a new business or organization. It is significant to see the picture of organization as a self-sustaining unit which is able to bring together the diverse units. India is a nation full of diversity and it has a very rich cultural history."[1] "They face the various problems, yet they are capable of launching themselves in all those roles which were usually male dominant. Thus during this period of social change and evolution, it is significant to study women entrepreneurship and how it can be encouraged further. It is also widely acknowledged that those countries where women are clever to get an equal role and are able to play important roles in organizations, there is greater wealth, greater economic and social development and development of better and more decent institutions. Thus the whole world today welcomes women in innovative roles including the role of entrepreneurship."

Dr. Sanjay Kumar Sinha is Professor, Department of Management, Chaudhary Ranbir Singh University, Jind, Haryana and Dr. Jyoti Rani is Assistant Professor in Commerce (HES II), Govt. College for Women, Jind, Haryana

Concept of Entrepreneurship

The concept of entrepreneurship has been comprehensively studied. This may be revealed in the subsequent three definitions of an entrepreneur.

1) Ingenuity taking,
2) The establishing and altering of social and economic mechanisms to turn resources and situations to practical account,
3) The recognition of risk.[2]

"To an economist, an entrepreneur is one who carries resources, labour, materials and other assets into mixtures that make their value more than before, and also one who presents changes, innovations and a new order. To a psychologist, such a person is usually driven by certain forces: the necessity to attain something, to experiment, to undertake, or possibly to escape the authority of others. To one businessman, an entrepreneur seems to be a threat and a belligerent competitor, while to another, the same entrepreneur may be a supporter, a spring of supply, a customer, or someone who generates wealth for others, as well as discovers better ways to exploit resources, decrease waste, and produce jobs others are eager to get."[3]

"Entrepreneurship is the dynamic process of creating incremental wealth. The wealth is generated by individuals who assume more risks in terms of equity, time or career provide value for some product or service. The product or service may or may not be new or exclusive, but value must somehow be infused by the entrepreneur by receiving and locating the essential skills and resources."[4]

"Entrepreneurship is the procedure of creating something new with value by dedicating the essential time and effort, conceited the accompanying financial, psychological, social risks, and receiving the ensuing rewards of monetary and personal satisfaction and independence. This definition strains four basic aspects of being an entrepreneur irrespective of the field. Leading entrepreneurship comprises of the creation process; generating something new having a value. The formation has to have value to the entrepreneur and value to the viewers for which it is developed. The viewers can be:

- the market of structural buyers for business innovation
- the hospital's administration for a new admitting procedure and software
- prospective students for a new course or even college of entrepreneurship
- the constituency for a new service provided by a non-profit agency."[5]

"Additionally, entrepreneurship needs devotion, necessary time and effort. Only those going through the entrepreneurial procedure escalate the significant amount of time and effort which proceeds to create something new and make it operational. For the person who actually starts his or her own business, the experience is filled with eagerness, frustration, anxiety and hard work. There is a high disaster rate due to things such as poor sales, extreme competition, lack of capital or lack of managerial ability. The financial and psychological risk can also be very high."

John (1997)[6]"established a great deal to the initiation as well as sustenance of entrepreneurship and entrepreneurial talent in the fundamental business environment. This model is presented in Figure 1.1."

Figure 1: A conceptual model (eco analysis framework) of entrepreneurship

Review of Literature

Vinisha (2012)[7] examined the development measures, adopted by the government and various other financial institutions in Kerala, in the promotion of women entrepreneurship. Data was collected from the total number of 23 government officials and from 18 financial institutions with the help of a structured questionnaire. The study exposed that the women entrepreneurial ventures are very poorly developed in the state or in other words women entrepreneurship is still distressed with the ailments of infancy. This should be an eye opener for both the Central and State governments and it should put as much input as possible to promote women entrepreneurship in the state. It will go a long way in resolving the unemployment situation in the state and also assume sustainable development in the state. Namita (2014)[8] "studied the importance of NGOs for the Female entrepreneurship in India. The study revealed that the majority of the developing female entrepreneurs are in small and micro enterprises. The study further emphasized on the main challenges faced by women entrepreneurs like lack of information, accessibility of finance, lack of market and network support, etc.."

Sanchita (2010)[9] inspected the difficulties and constraints of female entrepreneurs in Small Scale industry of Haryana. Data was collected by 210 female entrepreneurs of small-scale sector in Haryana with personal interview method and interview schedule. The study revealed that 39.2 percent of women entrepreneurs from the state reported that obtaining start-up capital for their ventures and businesses was the biggest challenge that they faced, discouraged by families, officials, and others in the industry, working to set up their ventures has been an uphill task for these women, says the study. Lack of awareness is a major disadvantage for aspiring women entrepreneurs in Haryana. Savita (2013)[10] examined the problems tackled by female entrepreneurs in a developing economy from Ambala districts in Haryana. "The Specific problems to women entrepreneur were: type of education, demand of role models in women entrepreneurship, the gendering of women entrepreneurship, weak social status, completing demands in time and access to finance."

Subhash (2013)[11] identified the opportunities and problems of women entrepreneurs in Haryana. Data was collected from 189 enterprises with the structured questionnaire. The study revealed that the strongest motive for women entrepreneurs to run their business is the 'utilization they keep business sense talent and potential (mean score: 4.23)'. The study further revealed that the major obstacles were government rules and regulations, problem of inception of business ideas and project identification, problem of obtaining start-up capital, lack of information or advice about facilities available to women entrepreneurs, unavailability of working place. Jyoti, (2016)[12] "studied the barriers facing by women entrepreneurs in Haryana (India). The study was descriptive-cum-exploratory in nature. In the present study convenient sampling technique was followed. The study entirely based on primary data collected through structured questionnaire. The study revealed that lack of family support, non-cooperation of male counterparts, weak bargaining position, psychological barriers, lack of experience, lack of knowledge, lack of society support, harassment, difficulties with getting loans to set up a business, lack of awareness about credit facilities for women, lack of infrastructure facilities, strict regulations and policies, attracting customers, lack of marketing skills, unfavorable market behaviors were the major problems facing by the women entrepreneurs."

The latitude of the studies was restricted to a general investigation of the inspiring factors and difficulties of female entrepreneurs but did not study the real entrepreneurial abilities in context of the running of the enterprises by women entrepreneur. Consequently, there is a requirement for a diagnostic study of entrepreneurial glitches of women and varying entrepreneurial environment opened to females in the framework of new financial policies under globalisation and liberalisation."

Objectives

The objectives of the study are:

- To ascertain the status of women entrepreneurs in the state.
- To examine the factors influencing women entrepreneurship development.

Hypothesis

The null hypothesis is stated below:

H_{01}: There exist differences in factors that affected women to initiate, entrepreneurial activities.

Research Methodology

Research Design

Research Design of the present study is exploratory cum descriptive. The purpose of exploratory study is to achieve a new insight into a phenomenon and generate new ideas.

Sampling

Women entrepreneurs from the four districts (Jind, Rohtak, Sonipat and Panipat) of Haryana had been considered as sample frame. The study was carried out on a demonstration sample of 400 women entrepreneurs (100 from each district) selected from four districts of Haryana who were categorized according to age groups, marital status, residential status, education and economic status. In the study non-probability 'convenience sampling technique was followed in drawing a sample from the population. The study was mainly based on primary data collected through structured questionnaire and direct interviews with women entrepreneurs.

Statistical Techniques: The data were analysed, interpreted and evaluated with the help of various statistical tools and techniques such as tabulation, graphic presentation, percentage, measures of central tendency, rank, regression, chi-square test, ANOVA, and other appropriate statistical techniques which was suitable for analysis of data.

Analysis and Interpretation

Status of the Women Entrepreneurs in the State of Haryana

Women who belong to less earnings group have become the entrepreneurs because of monetary factor and social circumstances. To become entrepreneurs women have to be supported by family members, because family members are those who can motivate for becoming the entrepreneur. In low income group families, women have to depend on their family for shouldering household responsibilities, when it comes in entrepreneurship they have to depend on family to become entrepreneurs.

The dynamic extension and development of female-owned enterprises is one of the significant developments of the ancient era, and all signals are that it will endure tenacious. In this sub-section of the study a brief profile of the business activities brought by the women in the state of Haryana has been depicted.

Tab le 1: Summary statistics for various factors of the demographic and business profile

Age	Up to 30	31-45	Above 45	
	103	221	76	
Community	SC	OBC	General	
	135	223	42	
Marital Status	Married	Single	Divorced	Widow
	270	35	46	49
Residential Area	Rural	Urban	Semi-Urban	
	87	202	111	
Education	Formal	Vocational Courses	Illiterate	
	289	26	85	
Nature of the Family	Joint	Nuclear		
	273	127		
Types of Business	Manufacturing	Trading	Servicing	
	37	90	273	
Types of organization	Micro	Small	Medium	
	183	140	77	
Present age	Less Than 1 year	1-5 years	6-10 years	Above 10 years
	67	169	125	39

Contd...

Contd...

Source of finance	Raised own capital	Government/ Voluntary Agencies	Assistance from financial	institutions Other sources
	77	211	63	49
Initial Investment	Below Rs. 1 Lakh	Rs.1-5 Lakh	Rs.6-10 Lakh	Above Rs.10 Lakh
	146	180	45	29
Profit Earned (annually)	Below Rs. 1 Lakh	Rs.1-2 Lakh	Rs.3-4 Lakh	Above Rs.4 Lakh
	59	124	155	62

The analytical table 1 exhibits that the succeeding facts have been observed about the demographic profile of selected women entrepreneurs: 55.2 percent respondents are aged between 31-45 years that indicates that they are young and energetic in nature; 55.8 percent of the women entrepreneurs belong to backward community; Majority i.e., 67.5 percent of the respondents are married; 50.50 percent of the women entrepreneurs in the study region live in urban areas; 72.2 percent of the women entrepreneurs in the study area have completed their Formal Education; Out of the 400 women surveyed, a majority, i.e., 68.2 percent live in joint family set-up.

The table further shows that the following facts have been observed about the business profile of selected women entrepreneurs: Majority i.e., 68.2 percent of the women entrepreneurs in the state of Haryana are involved in servicing activities; 66 percent of the women surveyed have agreed that they do not have any previous business experience of the same nature in the work they operate now; Most of women entrepreneurs (45.8 percent) are running the micro level business in state; 61.5 percent did not receive any training on entrepreneurial activities before they started the business; 52.8 percent of the women in the study area have raised business enterprise capital from the government/voluntary support agencies; The small-scale women entrepreneurs in the state of Haryana have invested Rs.1-5 lakhs at the initial stage of their business set-up (i.e., 45 percent as per the survey outcomes); Women with reliable business record and performance have agreed that they could earn a profit of Rs. 3-4 lakhs in a year, i.e. is 38.8 percent as per present study.

Factors Influenced

In this segment of the study the various factors that encourage women to become entrepreneurs are deliberated sumptuously. The following table shows the sources of initial idea to start the business by the women entrepreneurs.

Table 2: Sources of initial idea - to start the business

Sr. No.	Sources	No. of respondents	Percentage
1.	Parents	138	34.5
2.	Husband	78	19.5
3.	Friends/Relatives	39	9.8
4.	Trade fairs and exhibition	102	25.5
5.	Training and Education	43	10.8
	Total	400	100

Source: Primary data.

The Table 2 shows that out of the 400 respondents surveyed, 34.5 percent agreed that their parents gave initial idea to them to start a business enterprise, while it has been perceived that 19.5 percent were inspired by their husbands to start a business. 25.5 percent was encouraged by the women entrepreneurs based on trade fairs and exhibition to start a business undertaking, 10.8 percent have systematically attended training and education to become entrepreneurs and the remaining 9.8 percent were motivated by their friends and relatives to become entrepreneurs (Figure 2).

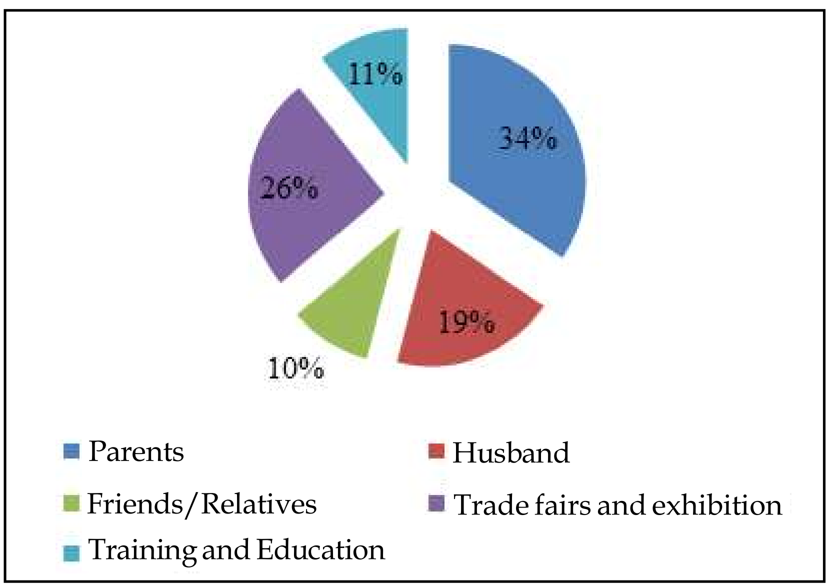


Figure 2: Sources of initial idea - to start the business

In the study it has been revealed that 34.5 percent agreed that their parents gave initial idea to them to start a business enterprise.

The Table 3 shows the effects of various factors responsible for setting up the business enterprise.

Table 3: Influences of various factors for setting up the business unit

Sr. No.	Variables	Very High	High	Moderate	Low	Very Low	Sum	Mean	Rank
	Ambition								
1.	To Make Money	191 (47.8)	146 (36.5)	39 (9.8)	24 (6)	0 (0)	696	1.74	4
2.	To Generate Self-Employment	144 (36)	118 (29.5)	105 (26.2)	33 (8.2)	0 (0)	827	2.0675	3
3.	To Continue the Family Business	51 (12.8)	85 (21.2)	97 (24.2)	142 (35.5)	25 (6.2)	1205	3.0125	2
4.	To Gain Social Prestige	37 (9.2)	59 (14.8)	110 (27.5)	182 (45.5)	12 (3)	1273	3.1825	1
	Compelling Reasons								
5.	Dissatisfaction with the Previous Job	49 (12.2)	149 (37.2)	89 (22.2)	105 (26.2)	8 (2)	1074	2.685	1
6.	Unemployment	89 (22.2)	153 (38.2)	101 (25.2)	45 (11.2)	12 (3)	938	2.345	2
7.	To Make Use of Ideal Funds	118 (29.5)	159 (39.8)	71 (17.8)	45 (11.2)	7 (1.8)	864	2.16	4
8.	To Make Use of Technical and professional knowledge	126 (31.5)	122 (30.5)	72 (18)	63 (15.8)	17 (4.2)	923	2.3075	3
	Facilitating Factors								
9.	Success Stories of other Entrepreneurs	116 (29)	138 (34.5)	99 (24.8)	41 (10.2)	6 (1.5)	883	2.2075	4
10.	Previous Association	72 (18)	114 (28.5)	132 (33)	61 (15.2)	21 (5.2)	1045	2.6125	2
11.	Advice from Family Members	89 (22.2)	190 (47.5)	67 (16.8)	49 (12.2)	5 (1.2)	891	2.2275	3
12.	Previous Employment	52 (13)	54 (13.5)	48 (12)	226 (56.5)	20 (5)	1308	3.27	1

Contd...

Contd...

		Support Factors								
13.	Personality characteristics	134 (33.5)	195 (48.8)	38 (9.5)	22 (5.5)	11 (2.8)	781	1.9525	5
14.	Family background	90 (22.5)	127 (31.8)	90 (22.5)	60 (15)	33 (8.2)	1019	2.5475	4
15.	Government support	61 (15.2)	74 (18.5)	89 (22.2)	115 (28.8)	61 (15.2)	1241	3.1025	1
16.	Education	67 (16.8)	99 (24.8)	89 (22.2)	90 (22.5)	55 (13.8)	1167	2.9175	2
17.	Ownership preferred	42 (10.5)	71 (17.8)	269 (67.2)	18 (4.5)	0 (0)	1063	2.6575	3

Note: i) Source: Primary data.

ii) The figures in brackets show the percentage.

The relevant factors that affect women to become entrepreneurs have been divided into four: Ambition (4 items), Compelling Reasons (4 items), Facilitating Factors (4 items) and Support Factors (5 items), in total 17 variables were examined in this category.

The ambition of the women to become entrepreneurs, mainly conferred to gain social prestige, ranked first with a premier mean score of 3.1825 on Likert's five point scale. Secondly, continue the family business has acquired an average score of 3.0125, and the motive to generate self-employment is ranked third with a mean score of 2.0675. The last factor that influenced them to start business was to make money and it has been ranked fourth with a low mean score of 1.74.

The compelling reason that mainly influenced women in four districts of the state of Haryana to start their own entrepreneurial actions is the women's dissatisfaction with the previous job, and it is ranked first with a higher mean score of 2.685. The second compelling reason notified by the sample women population was to overcome the problem of unemployment (2.345). The third primary reason stated by the sample population was to make use of the technical and proficient skill gained by them after their school or higher education and fourth reason notified by the women was to make use of ideal funds lying with them. All these variables have gained a mean value of 2.3075 and 2.16 respectively.

The facilitating factors that were reasoned by the women entrepreneurs which encouraged them to initiate entrepreneurial activities are : The factor "Previous Employment" is ranked first with a higher mean score of 3.27 and the factor "previous association with similar work environment and advice from family members" are ranked second and third respectively with a mean score of 2.6125 and 2.2275; and the factor "influenced by the success stories of other entrepreneurs" is ranked fourth with a mean score of 2.2075.

Five supportive factors that influenced women to initiate own business were recognised. They were: Support services received from government agencies (gained highest mean of 3.1025). Education and ownership preferences were ranked second and third with a high mean of 2.9175 and 2.6575 respectively. Family background and personality characteristics were considered as the fourth and fifth primary factors that motivated women in four districts of the state of Haryana to initiate their own entrepreneurial activities.

The Table 4 shows the measure of dispersion and coefficient of variance for the effects of various factors for setting up the business enterprise.

Table: 4: Influences of various factors for setting up the business unit (measure of dispersion and co-efficient of variance)

Features	Mean	SD	CV	Rank
Ambition	2.50	0.70	0.28	3
Compelling Reasons	2.37	0.22	0.09	4
Facilitating Factors	2.57	0.49	0.19	2
Support Factors	2.63	0.43	0.16	1

Source: Compiled from Primary data

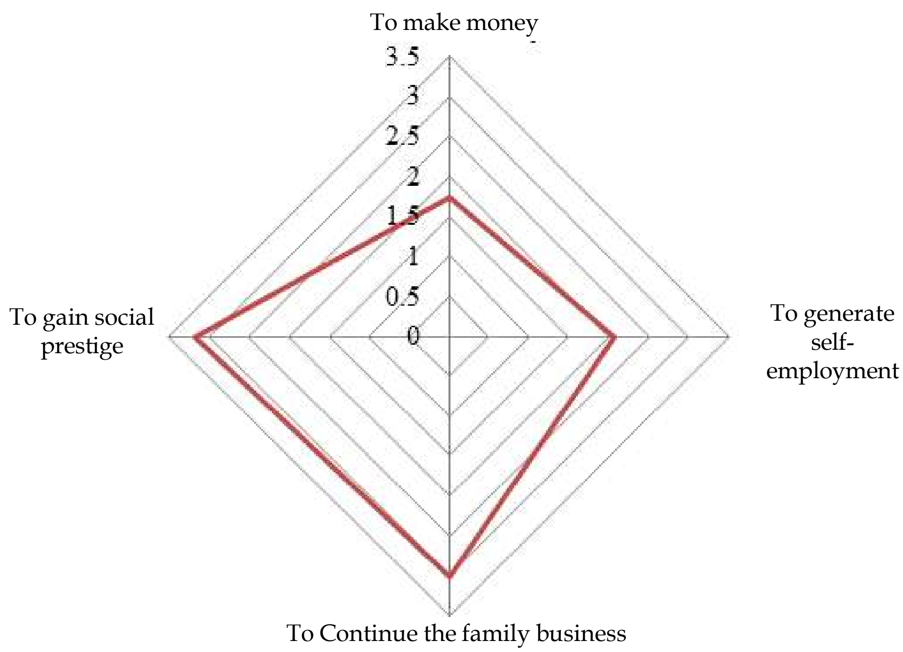


Figure 3: Influences of various factors for setting up the business unit (ambition)

Summary of the mean score was dignified and it is based on measures of dispersion and Coefficient of variance were consequential to the digestive outlook on the factors that mainly inspired women in the study area to initiate their entrepreneurial enterprises. It has revealed that women were mainly focused by their support factors to initiate a business. The facilitating services that influenced them to start, entrepreneurial enterprise was ranked second, followed by the ambition in the third position and compelling reasons of the women is measured as the least affecting factor.

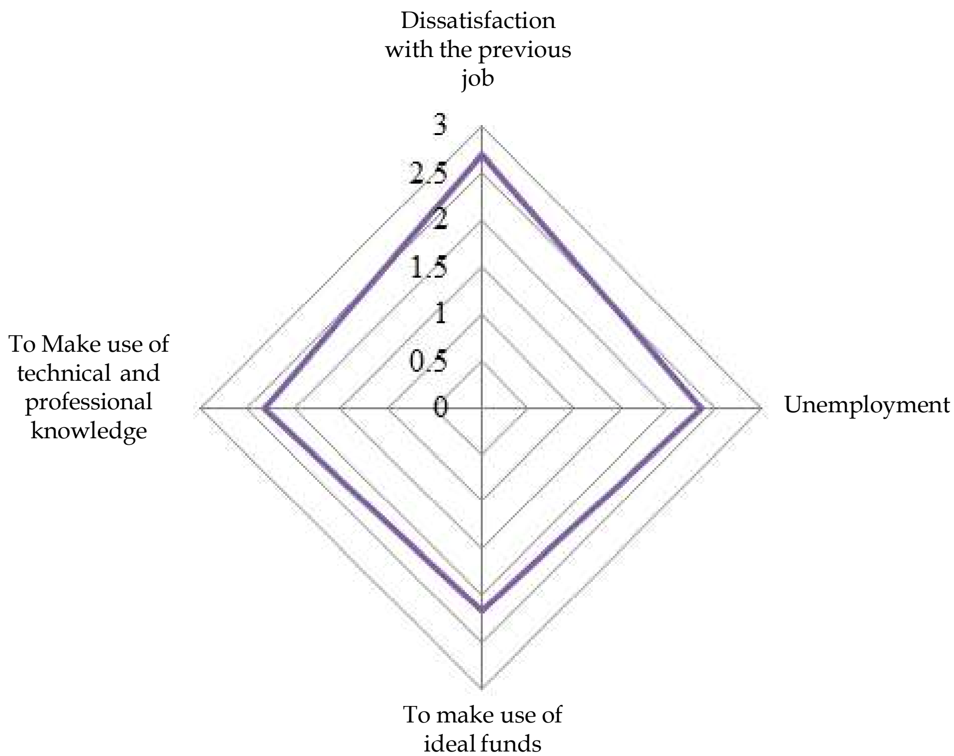


Figure 4: Influences of various factors for setting up the business unit (compelling reasons)

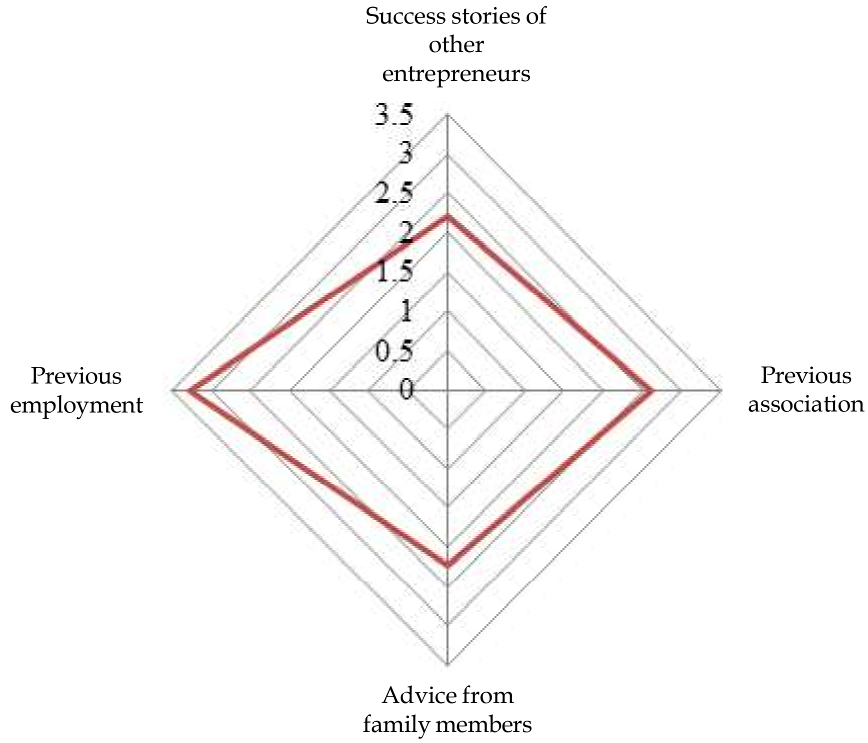


Figure 6: Influences of various factors for setting up the business unit (support factors)

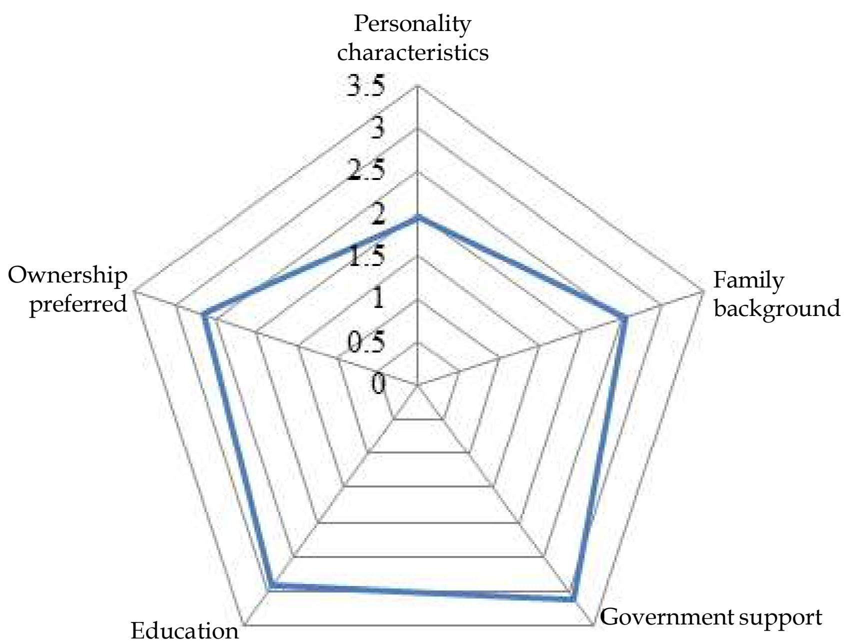


Table: 5: The result of reliability statistics for influences of various factors for setting up the business unit

Figure 5: Influences of various factors for setting up the business unit (facilitating factors)

Sl.	Variables	Mean	Std. Deviation	Cronbach's Alpha
Ambition		**0.751**		
1.	To Make Money	1.74	0.86561	
2.	To Generate Self-Employment	2.0675	0.97484	
3.	To Continue the Family Business	3.0125	1.15355	
4.	To Gain Social Prestige	3.1825	1.03046	
	Compelling Reasons			
5.	Dissatisfaction with the Previous Job	2.685	1.05288	
6.	Unemployment	2.345	1.03859	
7.	To Make Use of Ideal Funds	2.16	1.02813	
8.	To Make Use of Technical and professional knowledge	2.3075	1.19016	
	Facilitating Factors			
9.	Success Stories of Other Entrepreneurs	2.2075	1.02081	
10.	Previous Association	2.6125	1.10471	
11.	Advice from Family Members	2.2275	0.97113	
12.	Previous Employment	3.27	1.1621	
	Support Factors			
13.	Personality characteristics	1.9525	0.94736	
14.	Family background	2.5475	1.22331	
15.	Government support	3.1025	1.29854	
16.	Education	2.9175	1.29997	
17.	Ownership preferred	2.6575	0.72561	

Source: Compiled from Primary data

"Cronbach's alpha is the identical common form of internal reliability coefficient. A measurement had been prepared for the reliability of the data to check whether random error affecting variation and in turn lower reliability is at an adaptive level or not, by successively reliability test. The analytical Table 5 reveals that the values of Coefficient alpha (Cronbach's Alpha) was 0.751 .This indicates that the data have acceptable internal consistency reliability, because the reliability coefficient of 0.70 or higher is considered acceptable in most social science research."[13]

Table 6: Result of Chi-square (influences of various factors for setting up the business unit)

Sl.	Variables	Chi-Square	df	Sig.
1.	To make money	198.940[a]	3	.000
2.	To generate self-employment	67.740[a]	3	.000
3.	To continue the family business	100.300[b]	4	.000
4.	To gain social prestige	227.725[b]	4	.000
5.	Dissatisfaction with the previous job	145.150[b]	4	.000
6.	Unemployment	146.250[b]	4	.000
7.	To make use of ideal funds	179.000[b]	4	.000
8.	To make use of technical and professional knowledge	102.525[b]	4	.000
9.	Success stories of other Entrepreneurs	150.225[b]	4	.000
10.	Previous association	97.075[b]	4	.000
11.	Advice from family members	236.700[b]	4	.000
12.	Previous employment	342.500[b]	4	.000
13.	Personality characteristics	325.375[b]	4	.000
14.	Family background	62.725[b]	4	.000
15.	Government support	25.800[b]	4	.000
16.	Education	16.700[b]	4	.002
17.	Ownership preferred	394.900a	3	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 100.0.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 80.0.

c. Level of significance: 5 percent

"The data illustrates that the probability value of Chi-Square at 5 percent level establishes a good relationship between the variables tested. Hence, the null hypothesis framed failed to be rejected and it is concluded that there exists differences in factors that affected women to initiate entrepreneurial activities. The Factor analysis technique has been used to find the fundamental dimension (factors) that exists in the 17 variables relating to the influences of various factors for setting up of the business units."

Conclusion

"To ascertain the status of women entrepreneurs in the state of Haryana, the findings exhibited that"55.2 percent respondents are aged between 31-45 years that indicates that they are young and energetic in nature; Majority i.e., 68.2 percent of the women entrepreneurs in the state of Haryana are involved in servicing activities; 51 percent of the business enterprises owned by the women are from town area (i.e., semi-urban areas); 61.5 percent did not receive any training on entrepreneurial activities before they started the business; The small-scale women entrepreneurs in the state of Haryana have invested Rs.1-5 lakhs at the initial stage of their business set-up (i.e., 45 percent as per the survey outcomes); Women with reliable business record and performance have agreed that they could earn a profit of Rs. 3-4 lakhs in a year, i.e. is 38.8 percent as per present study outcomes.

To investigate the relevant factors that affect women to become entrepreneurs have been divided into four: Ambition (4 items), Compelling Reasons (4 items), Facilitating Factors (4 items) and Support Factors (5 items), in total 17 variables were examined in this category. The ambition of the women to become entrepreneurs, mainly conferred to gain social prestige, ranked first with a premier mean score of 3.1825 on Likert's five point scale. The compelling reason that mainly influenced women in four districts of the state of Haryana to start their own entrepreneurial actions is the women's dissatisfaction with the previous job, and it is ranked first with a higher mean score of 2.685. The facilitating factors that were reasoned by the women entrepreneurs which encouraged them to initiate entrepreneurial activities are: The factor "Previous Employment" is ranked first with a higher mean score of 3.27. Five supportive factors that influenced women to initiate own business were recognised. They are: Support services received from government agencies (gained highest mean of 3.1025). Summary of the mean score was dignified and it is based on measures of dispersion and Coefficient of variance were consequential to the digestive outlook on the factors that mainly inspired women in the study area to initiate their entrepreneurial enterprises. It has revealed that women were mainly focused by their support factors to initiate a business. The facilitating services that influenced them to start, entrepreneurial enterprise was ranked second, followed by the ambition in the third position and compelling reasons of the women is measured as the least affecting factor.

REFERENCES

A. Ramasethu (2015). A study on problems and challenges faced by urban working women in India. *Global Journal for Research Analysis*, Vol. No. 4 (10).

Ajay Sharma, Sapna Dua and Vinod Hatwal (2012) Micro enterprise development and rural women entrepreneurship: way for economic empowerment". *Arth Prabandh: A Journal of Economics and Management,* Vol. No.1 (6), September 2012.

Anil Kumar (2015). Women entrepreneurship in northern India (Major Research Project) sponsored by UGC, Department of Business Economics, Guru Jambheshwar University of Science & Technology, Hisar-125001 (Haryana) India.

Anita Mehta and Mukund Chandra Mehta (2011). Rural women entrepreneurship in India: opportunities and challenges. International Conference on Humanities, Geography and Economics (ICHGE'2011).

Anjali Singh (2014). Role of women entrepreneurs in India: a swot analysis. *International Journal of Management and International Business Studies,* Vol. 4 (2), November (2014), pp. 231-238.

Annual Report (2014-15). Ministry of MSME, Government of India. Accessed from www.msme.gov.in, Retrieved on 09 October 2015.

Deepika Nath (2000). Gently shattering the glass ceiling: experiences of Indian women managers. *Women in Management Review*, Vol. No. 15 (1), pp.44 – 52.

Dina Dhar S., Ratna Ghosh, and Meenakshi Gupta (1998). Women and entrepreneurship in India, in the book edited by Rabindra N. Kanungo, Sage Publications, New Delhi.

E.Setty (2004). Clinical approach to promotion of entrepreneurship among women, Anmol Publications Pvt Ltd., N. Delhi.

G.R.Basotia and K.K.Sharma (1991). Handbook of Entrepreneurship Development – An Entrepreneurs Guide to Planning, Starting, Developing and Managing a New Enterprise, Mangal Deep Publications, Jaipur.

M. Seetha Lakshmi (2001). Women in Dairy Management, unpublished Ph.D. thesis of Gandhigram Rural Institute - Deemed University, Gandhigram (Tamil Nadu), India.

M.K. Krishnan Embran (2003). A study on women entrepreneurship in Kerala un-published Ph. D thesis of Mahatma Gandhi University, Kottayam, Kerala, India.

Meenu Goyal and Jai Parkash (2011). Women entrepreneurship in India-problems and prospects. *ZENITH International Journal of Multidisciplinary Research,* Vol. No. 1 (5), September 2011.

P. Susan Thomas (2000). Women entrepreneurs in ernakulam district, kerala-an analytical study, unpublished Ph.D. thesis of Gandhigram Rural Institute – Deemed University, Gandhigram, Tamil Nadu, India.

Pankaj Kumar and P.N.Sharma (2009). Development of women entrepreneurs in India: with special reference to Bihar, in the book edited by Dr. Anil Kumar Thakur and Dr. Rahman R., Women Entrepreneurship, Deep & Deep Publications Pvt Ltd., New Delhi.

Pawan Garga and Rajesh Bagga (2009). A comparative study of opportunities, growth and problems of women entrepreneurs. *Asia-Pacific Business Review*, Vol. No. 5 (1) Jan-March, 2009.

Piyali Ghosh and Reena Cheruvalath (2007). Indian female entrepreneurs as catalysts for economic growth and development. *The International Journal of Entrepreneurship and Innovation,* Vol. No. 8 (2), pp. 139-148.

Punita Bhatt Datta and Robert Gailey (2012). Empowering women through social entrepreneurship: case study of a women's cooperative in India, Entrepreneurship Theory and Practice, Special Issue: Extending Women's Entrepreneurship in New Direction, Vol. No. 36 (3), pp. 569–587, May 2012.

R. Jyoti, Sinha S.K. (2016). Barriers facing women entrepreneurs in rural India: A study in haryana. *Amity Journal of Entrepreneurship,* Volume : 1, Issue : 1.

S.K. Dhameja (2002). Women entrepreneurs: opportunities, performance, problems, Deep & Deep Publications Pvt Ltd., New Delhi.

Surinder Pal Singh (2008). An Insight into the emergence of women-owned businesses as an economic force in India, presented at Special Conference of the Strategic Management Society, December 12-14, 2008, Indian School of Business, Hyderabad.

Vijay M. Kumbhar (2013). Some critical issues of women entrepreneurship in rural India. European Academic Research, Vol. No. 1 (2), May 2013.

Yogita Sharma (2013). Women entrepreneur in India. *IOSR Journal of Business and Management,* Vol. No. 15(3), (Nov. - Dec. 2013), pp. 09-14.

(Footnotes)

[1] R. Jyoti, Sinha S.K. (2016). Barriers facing women entrepreneurs in rural India: a study in Haryana. *Amity Journal of Entrepreneurship,* Volume : 1, Issue : 1.

[2] Douglas, Evan J. and Dean A. Shepherd. (2002). Self-employment as a career choice: attitudes, entrepreneurial intentions, and utility maximization. *Entrepreneurial Theory and Practice,* pp. 81–90.

[3] Gifford, Sharon. (1998). Limited Entrepreneurial attention and economic development. *Small Business Economics,* vol. 10, no. 1, pp. 17–30.

[4] Formaini, Robert L. (2001). The engine of capitalist process: entrepreneurs in economic theory. *Economic and Financial Review,* pp. 2–11.

[5] Drayton, William. (2002). The citizen sector: becoming as entrepreneurial and competitive as business. *California Management Review,* vol. 44, no. 3, pp. 120–32

[6] John J. Kao (1997). An entrepreneurial approach to corporate management. Singapore, New York: Prentice Hall.

[7] Vinisha Bose (2012). An analytical study of the impact of women entrepreneurship development measures promoted by the Government and financial institutions in Kerala, un-published Ph. D thesis of Mahatma Gandhi University, Kottayam, Kerala, India.

[8] Namita Kumari (2014). Women entrepreneurship in India: understanding the role of NGOs, published Ph.D. thesis of University of Trento, Italy. First Published by Notion Press 2014, Chennai, India.

[9] Sanchita(2010). Small scale industries in post reform era: a study of management problems of women entrepreneur in Haryana, un-published Ph. D thesis of Kurukshetra University, Kurukshetra.

[10] Savita (2013). Challenges faced by women entrepreneurs in a developing economy: a case study of Haryana", unpublished M.Phil. Dissertation of Maharishi Markandeshwar University, Mullana (Ambala), Haryana, India.

[11] Subhash Chander (2013). A study of women entrepreneurship in Haryana", un-published Ph.D. thesis of Kurukshetra University, Kurukshetra, Haryana, India.

[12] R. Jyoti, Sinha S.K. (2016). Barriers facing women entrepreneurs in rural India: a study in haryana. *Amity Journal of Entrepreneurship*, Volume : 1, Issue : 1.

[13] Cortina , J.M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied psychology.* Pp.98-104.

The Indian Journal of Commerce
Vol. 72, No. 2, April-June, 2019

Human Resource Practices in Selected Information Technology Organizations of Udaipur

JYOTI DASHORA AND KARUNESH SAXENA

***Abstract**: - In today's competitive era it is essential for Human Resource managers to implement innovative HR practices to gain competitive advantage. This research study is attempted to identify a variety of HR practices prevailing in the IT organizations, from the perspective of HR managers. Data has been collected from 46 HR managers from selected IT organizations of Udaipur by using a well-structured questionnaire which is based on eight factors of HR practices. The data were analyzed with statistical tool and the main findings of research shows that perception for some HR practices shows significant difference with demographics of managers.*

Keywords: HR practices, IT industry,HR managers Perception, HR practices.

Introduction

Among all the resources *"Human Resource* "is most valuable and only active resource of the organization. The main purpose of human Resource practices is to satisfy and retain employee for long time in an organization. HR practices play a very crucial role in organization overall growth. According to Peng (2007), best HR practices regularly include high pay for high-performance, extensive training and teamwork. By implementing these practices, the organization can: 1) increase the satisfaction level of employees as well as stakeholders, 2) helps to build critical capabilities of an organization.

Healthy human resource practices differentiate the organization from others and make difference in working efficiency. Information Technology (IT) can be defined as the application which is used and operated for any computers, storage, networking and other physical devices.As the IT organizations are knowledge industry and it requires talented workforce to accomplish their task so retention of employees are the primary goal and for that HR practices play an important role to solve the problem. According to Chandrapal & Brahmbhatt, (2015) IT sector plays an important role for the Indian organizations and people to provide

Dr. Jyoti Dashora is Assistant Professor, Sangam University,Bhilwara (Raj.) Prof. Karunesh Saxena is Professor, Faculty of Management Studies, Director IQAC & Director CDC, M.L. Sukhadia University, Udaipur (Raj.)

hardware and software related services. This research study is attempted to highlight impact of three demographic characters of managers of IT industry on their perception for HR practices. The three demographic characters are gender,age and technical qualification.

Review of Literature

Author (s)	Year	Contribution
Edmondson and Harvey	2017	When the cross- boundary teaming practices adopted by the organizations, diversity in knowledge has been observed for innovation.
Sanyal, Biswas and Ghosh	2017	Due to the fast growing changing technology and tough global competition, the software companies depend on their intellectual workforce.
Sekhar, Patwardhan and Vyas	2017	Their research study describes the implementation of flexible HR practices in Indian IT industries.
Bratton and Gold	2017	The research findings explains that the valuable feedback and suggestions regarding selecting and discarding a change into the Human Resource policy and function is required for each business unit for better performance.
Hoop	2016	Researcher suggested the 10 recent innovative HR practices and policies which satisfied the employees, few of them are-interview via video, using gamification, mandated time off, "owing" unused vacations, investing in employee health, giving time off for volunteering, customizing the position for the talent etc.
Mellam et al.	2015	Their research study explains the comparison between tradition and modern HR practices. Study based on Firms in Papua New Guinea -SOEs (State owned enterprises). Findings of the study indicate that maximum traditional HRM practice show slow employee performance in SOEs while modern HRM practices in PEs show high employee performance.
Mei and Subramaniam	2014	As per researcher's opinion the managers have crucial role in systematizing the

		various HR functions so they must identify strategy to manage human resource, nourishing them and contemplating their needs for the business productivity.
Ofori, Sekyere-Abankwa, and Borquaye	2012	According to the researcher's study - selecting and recruiting are the most crucial segment of HR functions and afterwards the training & development and staff retention in any organizations so it is required to be ranked among the all HR functions.
Shilkha, N., Khera	2010	Researcher has investigated that how do the 17 key HR practices increase the potential of employees. Training is the strongest HR practice in all types of banks.
Mahaney & Lederer	2006	As per researcher's explanation, in IT based software organizations, rewards and recognition practices are commonly proposed to encourage and appreciate the employee's team efforts, creativity, innovation and project success.
Gubbins et.al	2006	According to the researcher's, the top HR management is required to be involved in mechanizing and forming the HR functions and principles while the strategy makers' needs to participate in enhancing the reach of HR functions to meet the industrial standards.
Bing et.al	2003	Researcher explained that HR development professionals need perspectives of some technically expertise which can have knowledge of critical software function. So with respect to the software engineers, the skill of human resource professional's is considered crucial in an IT organization.

Research Methodology

The research design employed in the present research is a two phase approach. In the first phase exploratory research design is followed which tends to tackle new problem on which little or no previous research has been done in the past. In the second phase a causal research design is used to analyze the effect of various demographic factors on the perception of HR managers about HR practices in the respondents IT organizations. This research study is a part of a larger piece of research on HR practices in selected IT organizations of Udaipur.

For sample selection, a judgmental sampling technique was used to collect appropriate sample. On the basis of judgmental sampling method a total 46 HR Managers were selected from selected Information Technology Organizations of Udaipur district. The data for this particular part was gathered by using awell-structured questionnaire which is based on demographic information as well as question based on five point Likert Scale.This questionnaire is designed to take responses from HR Managers of IT organizations about prevailing HR practices. The respondent HR managers were asked to rank the extend of uses/prevalence of HR practices on the 5 point likert type scale. A score of 5 indicates that a particular HR practices is being used in their organizations at a great extent and a score of 1 indicates that a particular HR practices has not been used at all.

Data Analysis and Interpretation

Cronbach's alpha value for the responses of the 42 Items of the study was found as 0.826 which is an excellent representation of the quality of data and confirms approx 82.6% reliability of the collected data. The data which have been collected from 46 managers of IT organizations shows the different frequencies for Gender, Age group and Technical Education qualification etc.

Age Group Data of Respondents

Table 1 and indicatesthe frequencies of different age group of respondents.

Table 2: Showing age group data

	Age	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-29	23	50.0	50.0	50.0
	30-39	16	34.8	34.8	84.8
	40-49	6	13.0	13.0	97.8
	50-59	1	2.2	2.2	100.0
	Total	46	100.0	100.0	

The data shown above depicts that the maximum numbers of respondents are of age group between 20-29 years and second category of age group ranges between 30-39 years. Only 1 respondent belongs to 50-59 age group range which means that theyoungsters arein majority, working as HR manager in IT industries of Udaipur.

The table shows the loadings (extracted values of each item of 33 variables) of the thirty three variables from which the eight factors extracted. The higher the absolute value of the loading, the more the factor contributes to the variable. From the analysis, eight factors are extracted which are associated with the respondents opinion about the HR practices of IT industry.

Table 2: Total variance for the negative factors

Total variance explained						
	ComponentInitial Eigen values			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	18.412	55.794	55.794	18.412	55.794	55.794
2	3.282	9.946	65.739	3.282	9.946	65.739
3	1.792	5.432	71.171	1.792	5.432	71.171
4	1.368	4.146	75.317	1.368	4.146	75.317
5	1.226	3.715	79.032	1.226	3.715	79.032
6	1.012	3.067	82.098	1.012	3.067	82.098
7	.850	2.575	84.673	.850	2.575	84.673
8	.692	2.098	86.771	.692	2.098	**86.771**
9	.642	1.945	88.716			
10	.534	1.618	90.334			
11	.503	1.524	91.858			
12	.426	1.292	93.150			
13	.383	1.161	94.311			
14	.364	1.104	95.415			
15	.271	.821	96.236			
16	.233	.705	96.941			
17	.226	.684	97.625			
18	.169	.511	98.136			
19	.136	.411	98.547			
20	.106	.322	98.869			
21	.096	.290	99.159			
22	.074	.225	99.385			
23	.071	.215	99.600			
24	.045	.137	99.737			
25	.027	.082	99.819			
26	.024	.073	99.892			

Contd...

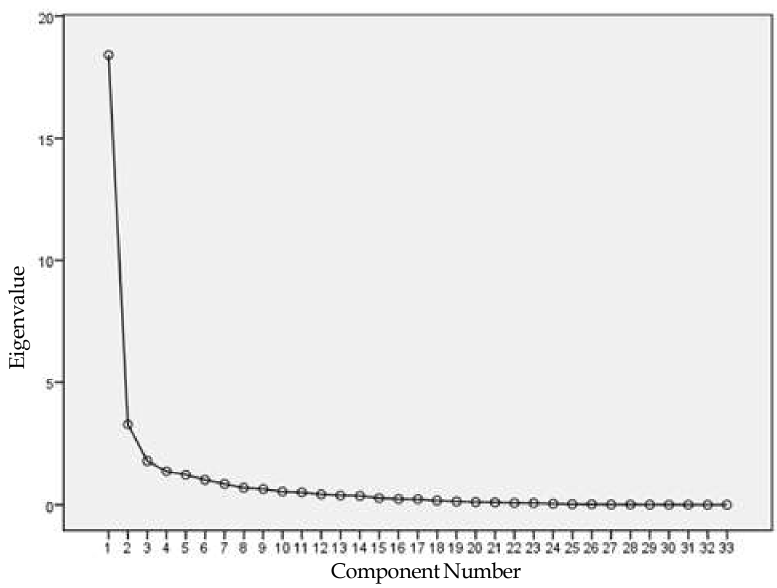
27	.012	.038	99.929
28	.011	.034	99.964
29	.006	.020	99.983
30	.004	.013	99.996
31	.001	.003	100.000
32	.000	.000	100.000
33	-6.088 E-016	-1.845 E-015	100.000

Extraction Method: Principal Component Analysis.

Source: - Authors compilation (Primary Data)

Scree Plot

The scree plot is a graph of the Eigen values against all the factors. The graph is useful for determining how many factors to retain.



Graph 1.2: Scree Plot

From factor third to eight line is going to flat, it can also be seen that the curve begins to flatten from factors 8 and 9 that showing the each successive factor is accounting for smaller and smaller amounts of the total variance. Thus factors till 8 have been retained. By analyzing the thirty three different parameters the IBM SPSS 20.0 extracted eight factors which are as follows:

List of Variables and Measures of HR Practices

In table 3 lists of variables has been shown with its corresponding measures.

Table 3: List of variables and measures of HR practices

Construct	Measures used
Recruitment and Selection	Fair and equitable system of Recruitment and Selection.
	Apply highly scientific and rigorous procedure for selection.
	Valid and standardized tests for the selection process.
	Essential parameters are used for employee selection.
Orientation and Placement	Formal system of induction programme.
	Efficacy of Induction programme.
	Induction training creates bonding between the organization and employees.
Training and Development	Provision of training for various skill developments.
	Provision of training by experts.
	Providing training manuals to employees.
	Equal opportunity of learning and growth for employees.
	Provision of off the job training.
Working Conditions/ Environment	Availability of good infra structure and seating place.
	Provision of proper ventilation and furnishing facilities.
	Good canteen and refreshment facilities for employees
	Provision of Safety Measures.
Organization Culture	Management always care for development of employees
	Employees potential are efficiently used by organization.
	Employees are free to express their feelings.
	Employees are encouraged for innovation.
	Presence of effective upward and downward Communication channels
	Team spirit is of high order in this organization.
	Provision of grievance redressal system for problem solving
Performance Appraisal	Organization has modern performance appraisal system.
	Awareness of employees about applicable standards
	Performance based feedback provided to employees.
	Organization has a good appraisal system.
Career Development	Presence of well-designed career development and succession planning.
	Individual and organizational objective are parallel.
	Awareness of employees about career opportunities available in the organization.
	Preference of internal recruitment.
Compensation & Benefits	Benefits for employees are as per prescribed legal standards.
	Compensation for employees is based on their competence or ability.

According to table 3, we found eight major factors of HRM practices such as Recruitment & Selection, Orientation & Placement, Training & Development, Working Conditions/ Environment, Organization Culture, Performance Appraisal, Career Development related and Compensation & Benefits.

Relationship Between Demographic Variables and HR Practices

Effect of AGE on HR Practices in IT industry

For analyzing the influence of AGE on HR practices (both aggregate and factor wise following hypotheses have been formulated.

H_{0-1}: There is no significant difference among the perception of various age group respondents' with regards to "recruitment and selection practices" of IT Industry.

H_{0-2}: With respect to "orientation and placement practices" there is no significant difference among the perception of various age group respondents in IT Industry.

H_{0-3}: There is no significant difference among the perception of various age group respondents' with respect to "training and development practices" in IT Industry.

H_{0-4}: With regards to "working conditions" there is no significant difference among the perception of various age group respondents of IT Industry.

H_{0-5}: There is no significant difference among the perception of various age group respondents' with respect to "organizational culture" of IT Industry.

H_{0-6}: With regards to "performance appraisal" there is no significant difference among the perception of various age group respondents of IT Industry.

H_{0-7}: There is no significant difference among the perception of various age group respondents with regards to "career development" of IT Industry.

H_{0-8}: with regards to "compensation and benefits" there is no significant difference among the perception of various age group respondents of IT Industry.

H_{agg0-9}: There is no significant difference among the perception of various age group respondents with regards to the "aggregate factors" of HR practices in IT Industry.

The above given hypotheses try to establish through statistical tools that various age group differ with respect to the aggregate and factor wise Human Resource practices. The results of analysis are shown in table 4.

Table 4 depicts that the significant value of Recruitment and Selection (0.033) is less than 0.05 so the null hypothesis is rejected. This decipher that all the age groups hold different perception about the "recruitment and selection" process in the IT industry.

Table 4: Summary of test results (Anova) for age group and HR practices

Anova							
			Sum of Squares	Df	Mean Square	F	Sig.
H_{0-1}	RS	Between Groups	3.773	3	1.258	2.287	.033
		Within Group	23.097	42	.550		
		Total	26.870	45			
H_{0-2}	OP	Between Groups	2.258	3	.753	1.200	.032
		Within Group	26.351	42	.627		
		Total	28.609	45			
H_{0-3}	TD	Between Groups	3.867	3	1.289	1.871	.149
		Within Group	28.938	42	.689		
		Total	32.804	45			
H0-4	WC	Between Groups	.917	3	.306	.361	.781
		Within Group	35.518	42	.846		
		Total	36.435	45			
H0-5	OC	Between Groups	4.145	3	1.382	2.031	.124
		Within Group	28.572	42	.680		
		Total	32.717	45			
H0-6	PA	Between Groups	4.120	3	1.373	1.530	.021
		Within Group	37.706	42	.898		
		Total	41.826	45			
H0-6	CD	Between Groups	1.967	3	.656	1.126	.350
		Within Group	24.467	42	.583		
		Total	26.435	45			
H0-7	CB	Between Groups	.623	3	.208	.366	.778
		Within Group	23.812	42	.567		
		Total	24.435	45			
H0-Agg	HRM (Agg)	Between Groups	3.178	3	1.059	.366	.175
		Within Groups	25.692	42	0.612		
		Total	28.870	45			

The significant value of Orientation and Placement (.032) is less than 0.05 so we reject the null hypothesis. This interprets that all the age group employees possess different opinion about the orientation and placement process of HR practices.

The significant value of Training and Development (.149) is greater than 0.05 so we fail to reject the null hypothesis. This interprets that employees of different age groups hold same perception about the training and development process of HR practices followed in their industry.

The significant value of Working Condition (.781) is greater than 0.05 so we fail to reject the null hypothesis. This interprets that all the different age groups think in a similar manner about the working condition as HR practices followed in their industry.

The significant value of Organization Culture (.124) is greater than 0.05 so we fail to reject the null hypothesis. This decipher that all the age groups under consideration hold same opinion about the Organization Culture process of HR practices prevailing in their industry.

The significant value of Performance Appraisal (.021) is less than 0.05 so we reject the null hypothesis. This decodes that all the employees of different age groups hold different in their perception about the Performance Appraisal system as HR practices followed in their industry.

The significant value of Career Development (.350) is greater than 0.05 so we fail to reject the null hypothesis. This reveals that all the different age groups hold same perception about the Career Development opportunities as HR practices running in their industry.

The significant value of Compensation and Benefits (.778) is greater than 0.05 so we fail to reject the null hypothesis. This decipher that employees of all the different age groups hold same intellectual about the Compensation and Benefits as HR practices followed in their IT industry.

The significant aggregate value of HR practices in IT industry (0.175) is greater than 0.05 so we fail to reject the null hypothesis.

Conclusion

Various age groups have different opinion regarding Recruitment & Selection, Orientation & Placement and performance appraisal as HR practices prevailing in their organization. This analysis proves that employees are satisfied towards the rest of the HR practices adopted by Information Technology organizations of Udaipur. The research findings indicate that different age group employees have different opinion regarding some of the prevailing HR practices in the organization but employees are satisfied with rest of the established HR practices.

REFERENCES

Bing, J. W., Kehrhahn, M. and Short, D. C. (2003). Challenges to the field of human resources development. *Advances in Developing Human Resources*, 5 (3): pp. 342-351.

Bratton, J. and Gold, J. (2017). Human resource management: theory and practice. Palgrave.

Chandrapal, J.D. &Brahmbhatt, A.C (2015). Evolution of life Insurance industry in india–past and present-An overview. *Asian Journal of Research in Business Economics and Management,* 5(5), pp.53-76.

Gubbins, C., Garavan, T. N., Hogan, C., & Woodlock, M. (2006). Enhancing the role of the HRD function: The case of a health services organisation. *Irish Journal of Management,* 171-206.

Mahaney, R. C.& Lederer, A.L. (2006). The effect of intrinsic and extrinsic rewards for developers on information systems project success. *Project Management Journal,* 37 (4), 42-54.

Mei, W. C. W., & Subramaniam, I. D. (2014). A comparison of the ability level of human resource roles and their perceived importance among HR professionals in the Malaysian Government linked companies. *Canadian Center of Science and Education,* 10(19), 149-157.

Mellam, A., C., Rao, P.S., Mellam, B., T. (2015). The effects of traditional and modern human resource management practices on employee performance in business Organisations in Papua New Guinea. *Universal Journal of Management,* 3(10), PP. 389-394.

Ofori, D.F., Sekyere-Abankwa, V., and Borquaye, D.B. (2012). Perceptions of the Human Resource Management Function among Professionals: A Ghanaian Study. *International Journal of Business and Management,* 7(5), 160.

Peng, M.W. (2007). Human Resource Management. Global Business. PP 366-382.

Sanyal, M.K., Biswas, S.B., and Ghosh, R., (2017). HR practices in IT industries, advances in intelligent systems and computing, Springer, Singapore (International Conference), 458.

Sekhar, C., Patwardhan, M., Vyas, V. (2017b). Causal modelling of HR flexibility and firm performance in Indian IT industries. *Journal of Modelling in Management.* 12(4), pp. 631 – 651.

Shikha, N.,Khera, (2010). Human Resource Practices and their impact on employees productivity-A perceptual analysis of private, public and foreign bank employees in India. *DSM Business Review,* Vol2, No 1 (June 2010)

The Indian Journal of Commerce
Vol. 72, No. 2, April-June, 2019

Recovery Management – A Case Study of KSFC

INCHARA P M GOWDA

Abstract: *With the primary objective of assisting the industrial enterprises in the country in their financial requirements, both the Union Government of India and the state governments have established a few industrial financial corporations. One such corporation established by the Government of Karnataka is the Karnataka State Financial Corporation way-back in 1959. Since its inception, it has been providing loans and advances (and a few other financial services) to industrial enterprises in the state of Karnataka. Most importantly, more than 75% of its financial assistance is for the micro, small and medium enterprises. Though the corporation has been trying hard to serve the industrial society which in turn contributes immensely for the overall economic development of the state thereby contributing to the economic development of the country, the amount of non-performing assets (NPAs) is on the higher side (though it has succeeded in bringing down the NPA Ratio in the recent years). One of the reasons for this menace appears to be 'not so satisfactory recovery performance'. This paper makes an attempt to examine the performance of KSFC with an emphasis on its recovery performance considering the recoverable amount and the amount recovered – both current demand and arrears; and both the principal loan amount and the interest amount.*

Keywords: MSMEs, KSFC, Recovery Performance, Current Demand, Recoverable Amount, Recovery Ratio, NPAs

Introduction

Banking and financial institutions play an important role as financial intermediaries between the parties with surplus fund and the parties who are in need of fund. These institutions mobilize the fund from general public (and other public authorities including the government) agreeing to pay the interest at the agreed rates periodically and also to return the deposits, etc., in accordance with the requirements of the depositors and/or terms of deposits. They use the fund so mobilized for lending to those who need money in accordance with their (i.e., of lender-organizations) credit policies and to earn interest income from their lending activities.

Dr. Inchara P.M. Gowda is ICSSR Post-Doctoral Fellow, Institute of Management Studies, Kuvempu University, Jnana Sahyadri, Shankaraghatta 577 451, Shivamogga District, Karnataka.

Smooth functioning of banking and financial companies including the development financial institutions (DFIs) depends upon, among others, the receipt of interest income periodically and also receiving back of principal loan amount from the borrowers as per the terms of loan. This is because of the reason that the ability of any banking/financial company to pay interest (on deposits and other forms of fund mobilized), and also to return the deposit amount (to the depositors) depends upon how effectively and efficiently it recovers the amount due (principal and/or interest) from its loanees including the institutional borrowers such as industrial enterprises. Recovery, therefore, assumes importance in the case of lender-organizations as their ability to survive and grow depends upon the recovery of amount due from the loanees. This is true even in the case of DFIs including the state financial corporations (SFCs) such as Karnataka State Financial Corporation (KSFC).

MSMEs and Financial Problems

It is an established fact that the industrial enterprises are contributing substantially for the overall development of Indian economy in many ways such as (i) generation of employment opportunities, (ii) production and supply of goods and services (for both domestic and global markets), (iii) contribution to country's exports, gross domestic product (GDP), balanced regional development, etc. However, though these enterprises have the potential to contribute more, it is not happing as they are facing certain problems, and one such common and major problem is that of 'finance'. This is true even in the case of micro, small and medium enterprises (MSMEs). Non-availability of adequate and timely credit, high cost of credit, collateral security requirements, limited access to equity capital, etc., are some of the common financial problems of MSMEs (Prime Minister's Task Force, 2010). Besides, the major problem of MSMEs is the 'financial gap' i.e., a situation wherein the demand for financial assistance (by MSMEs) exceeding the supply of the same by the lender-bankers. In the case of new and tiny units, credit hardly grows and they even complain about difficulties in obtaining the required fund (Jean-Paul, June 2014).

Of course, banking companies also provide financial assistance to industrial enterprises but it is not adequate and they cannot provide loans and advances for longer periods which the industrial enterprises need for capital investment programmes. Keeping this in mind, the Government of India (GoI) established a few DFIs and the Industrial Finance Corporation of India (IFCI) is one such institution established on 1 July 1948 under the Provisions of Industrial Finance Corporations Act, 1948. Encouraged by this and realizing the need to strengthen MSMEs in their states, the state governments have also established SFCs under the Provisions of State Financial Corporations Act, 1951. And one such state level financial institution is the Karnataka State Financial Corporation (KSFC, corporation) established by the Government of Karnataka (GoK) in 1959.

Karnataka State Financial Corporation – A Brief Profile

The primary objective of KSFC is to provide the financial assistance to MSMEs in the state of Karnataka. As the geographical area of its operation extends to cover the entire state, it has four Circles and 32 branch offices – one branch office at each of the headquarters of 30 revenue districts of the state [in Bengaluru (Urban) district, it has established three branch offices]. The share capital of the corporation of ‘ 936.94 crore is provided by the GoK (95.87%), Small Industries Development Bank of India (SIDBI, 4.10%) and others (0.03%). It has human resource strength of 918 (as at 31 March 2017) comprising 282 Class – A (officers), 547 Class – B (assistants and clerical staff) and 89 Class – C (subordinate staff).

Besides the loans and advances, it also provides a few other financial services such as general insurance, mutual fund products, e-stamping, monitoring agency services, infrastructural development, etc., by entering into memorandum of understanding (MoU) with the authorities concerned. In accordance with the Provisions of State Financial Corporations Act, 1951 and the guidelines of SIDBI, the corporation has identified 22 broad categories of activities which are eligible for financial support. Based on these major activity groups, it has also designed 29 broad schemes. During this 58-year period of its existence and functioning, it has sanctioned loans and advances to 1,71,414 industrial enterprises to the tune of ‘ 15,276.05 crore. And most importantly, more than 75% of this loan sanctioned is for MSMEs. Though the corporation suffered loss in the past, it has turned around in the recent years to earn and report profit year after year continuously.

Literature Review

Both individual and institutional researchers have examined the inter-relationship between the performance of borrower-enterprises and that of lender-organizations. As is known very well, if the borrowers function profitably, they are able to service their debt and also to repay the borrowed amount to the lenders (in accordance with the terms of credit). Further, the studies have focused on the importance of a few important activities of lending organizations such as credit appraisal, continuous supervision/monitoring of projects funded by them, timely recovery of money lent, etc. Among these, timely recovery of full amount due from borrowers assumes importance as it has a direct and favourable impact on a few important performance indicators of lending institutions such as interest income, net interest spread (i.e., Interest Income – Interest Cost), reported profit, provision against loan assets including NPAs at higher rates, fund available for further lending, etc. On the other hand, if they fail to recover the full recoverable amount in accordance with their credit terms, it will have in adverse implications on all these performance indicators.

Interaction with a few defaulting borrowers and branch managers of banks showed that, on an average, 70% of credit disbursed to different sectors of the economy is not recovered in time. It may be noted here that the money lent is expected to flow back into the banking system but the experience is rather perplexing. The unsatisfactory recovery performance of banks inhibits the capacity of banking companies to recycle the fund. In other words, withholding of payment (of amount due) to banks by a few borrowers denies an opportunity to other loan-seekers. As a result, the banks are finding difficulty in maintaining the tempo of advances (owing to lack of recycling of credit). This poor record of recovery dries up resources of banks slowing down the flow of credit to others (Monteiro, 2015). Prompt recovery of loan provided by the banks is, therefore, a necessity from the points of view of their liquidity, security of assets, profitability, etc. However, these lending-banks (which have provided financial assistance to MSMEs) are facing many problems with regard to recovery of amount lent. This highlights the need for strengthening their debt recovery mechanism and also to follow rigorous credit appraisal by the lending banks (Parameshwara, 2015). This is necessary as the banks channelize the depositors' funds as loans to others including industrial enterprises. Therefore, lender-bankers are required to take necessary precautions before disbursing depositors' money as loan (to other parties) such as the use of sophisticated risk grading techniques. It may be noted here that, lack of proper and objective credit appraisal is one of the reasons as to why most of the banks (in Bangladesh) are experiencing asset quality problems (Md. Saidur Rahman, July-September 2011).

It is an established fact that the cooperative banks are playing a stupendous role in India, more specifically in rural parts of the country, extending loans and advances for agricultural and non-agricultural activities. However, though the amount of loan provided by these banks have increased substantially over the years, the overdue has deeply been rooted into the system blocking the flow of credit to agriculture. To put it alternatively, inordinate delay in the recovery of loans builds up NPAs causing increase in the cost of financial intermediation (as these banks have to resort to borrowings at higher cost). NPAs, as a syndrome, though not new to the cooperative sector, have been causing nuisance. Consequent to the poor recovery performance, the resultant mounting NPAs are shuddering the very foundation of cooperative banks (Ravichandran & Mayilsamy, 2008).

Worldwide, level of NPAs is used as an important yardstick for examining the credit risk, asset quality and also the efficiency with which the banking companies are allocating their resources to ensure optimal allocation. Besides the bank level efforts, the intervention of apex bank together with the supportive legal environment are necessary to keep the NPAs at the minimum level. This environment enables the public sector banks (PSBs) to maximize their loan recovery minimizing their credit defaults which in turn ensures improvement in their financial performance (Kondaiah & Kovalli, 2012). However, it may be noted here that, '*prevention is better than cure*'. Therefore, banks should try to ensure that their loans and advances do not get converted into NPAs (Vinit & Mukunda, 2014). This is because of the reason that the NPAs have always been a big problem not only for the lending-banks but also for the entire economy. Among the banking companies, the level of NPAs is higher in PSBs as compared to private sector banks. Again, the level of NPAs of domestic private sector banks is higher than with branches of foreign banks operating in India. Realizing the gravity of NPA problem, the government has taken various steps. Still, this problem needs lot more to contain. Of course, it is very difficult to have zero NPAs. However, the managements of banking companies are required to speed up the recovery process (Satpal, 2014). The NPAs, the root cause of recent global financial crisis and which were neglected till recently, are attracting the attention of all stakeholders. Comparatively higher level of NPAs from loans to priority sector is a matter of concern. In this regard, it is felt that SHG model (self-help group) is ideally suited for Indian banking companies – not only for allowing poor to access loans but also for their prompt repayments (Meenakshi & Mahesh, 2010).

Quality of loan assets is reflected in the loan recovery. The improvement in the asset quality of lending banks is an important way of improving their efficiency. Increase in over-dues results in higher level of NPAs which reflects the deterioration in the asset quality and reduction in the lending capacity of banks. This results in the reduction of fund for developmental activities (Monika , 2014).

It may be noted here that both the liquidity of loan assets and the efficiency of financial institutions are highly correlated. It is true even in the case of SFCs. Efficiency of financial institutions is assessed not only on the basis of their profitability but also on the quality of their assets. And NPAs erode the asset quality and cease to generate income impacting the performance of lending institutions adversely. They (*i.e.,* NPAs) block huge amount in the form of Provision against NPAs creating snags for financial institutions in sanctioning new loans owing to shortage of fund (Pradip, 2014). However, the lending institutions such as KSFC should take more care to examine/appraise the project proposals as objectively as possible, and also to monitor the progress of the projects assisted by them so as to ensure that they do not become sick while nursing both healthy and sick MSMEs (Inchara, 2017).

Of course, financial assistance to MSMEs is a necessity and important as these enterprises act as the engine of economic growth. The KSFC has promoted many enterprises and also new entrepreneurs to develop their plan and to implement the same. And the corporation has a good recovery policy enabling it to ensure that the assets do not slip into NPAs. However, it is felt that the corporation (*i.e.,* KSFC) has to spread its activities to semi-urban and rural segments of the state to contribute towards the balanced regional development (Srinivas, 2013).

On the lines of the above, many more researchers have worked on different dimensions of performance of banking companies and DFIs including recovery performance. All these studies highlight the importance of recovery of amount lent by the banking and financial institutions.

Statement of the Problem

As already pointed out, the corporation has been able to earn and report profit year after year in the recent years. However, the major problem of the corporation is that of its huge accumulated loss. Even if it continues to earn profit after tax at the current level of ' 35 – ' 40 crore annually in future, it needs another 11 – 13 years to wipe out the entire accumulated loss. Further, the corporation has been successful in lowering its NPA Ratio (non-performing assets). Still the amount of NPAs is on the higher side with multifarious ill-effects on different performance indicators of the corporation. In all these cases and in both the success and the failure of the corporation, recovery of amount due from the borrowers plays a major and decisive role.

Objective of the Study

The present paper primarily aims at examining the performance of KSFC from the point of view of its recovery performance using four important variables viz., (i) current demand of principal, (ii) current demand of interest, (iii) current demand of both principal and interest, and (iv) aggregate of both arrears and current demand of both principal and interest.

Hypothesis

Keeping in mind the objective of the study, a null hypothesis, H_O: There is no significant improvement in the recovery performance of KSFC during the study period, is formulated for the purpose of testing.

Methodology

The study is based on the performance statistics of KSFC during the last 10 years, 2007-08 to 2016-17. The major source of data for the study is the KSFC – its Annual Reports and Operational Statistics – two important annual publications. Besides, the relevant and necessary details are also collected from other secondary sources like research publications, websites, committee reports, etc.

For the purpose of evaluating the recovery performance of the corporation, a few descriptive statistics such as Mean, Standard Deviation (SD), Coefficient of Variation (CV), Skewness, etc., are used besides one-way ANOVA for testing the hypothesis. Further, compound annual growth rate (CAGR) is also used for the purpose of ascertaining the overall growth in its performance. In addition, for one variable (viz., aggregate of arrears and current demand of principal and interest), EViews software package is used to test the interrelationship and also the long-run relationship between the two variables (viz., recoverable amount and recovered amount).

The study is purely analytical/descriptive in nature as it examines the recovery performance of the corporation based on its performance statistics.

Limitations of the Study

Though the performance of KSFC in a few other areas such as credit appraisal, credit exposure to a few large borrowers, monitoring of progress on the projects funded by the corporation, asset quality, etc., influence the recovery performance of the corporation, the focus of this paper is on the recovery performance owing to the limitations of papers like the present one. Hence, other aspects (other than 'recovery') are not covered in this paper.

Data Analysis and Interpretation

KSFC has a clear policy about lending and recovery – both are made known to the borrower-enterprises. This aspect together with other terms of credit are also specified in the (loan) sanction letter. The borrower-enterprises are required to service their loan (by paying the interest at the agreed rate periodically) and to repay the principal loan amount in accordance with the terms of credit. The credit period (*i.e.,* the period for which loan is sanctioned and disbursed) differs from short-term loan to medium-term and to long-term loan. In most of the cases, the corporation allows the borrower-enterprises to repay the principal loan amount in instalments periodically. Though the borrower-enterprises are liable to make the payments in accordance with the terms of credit, the corporation has the responsibility to recover the amount from the borrowers on time. recovery performance of KSFC is examined using Recovery Ratio with regard to four components as presented below.

1) Recovery of current demand of principal amount,
2) Recovery of current demand of interest amount,
3) Recovery of current demand of principal and interest amounts, and
4) Recovery of arrears and current demand of principal and interest amounts.

Recovery of Current Demand of Principal Amount

The amount due for payment (by the borrowers) comprises both the principal and the interest. In this context, the 'current demand of principal amount' refers to the amount of loan/ principal amount which has become due for payment by the loanees during the current reporting period. A portion (or whole) of this current demand (principal amount) is recovered during the current reporting period. The amount of current demand recovered to current demand represents the Recovery Ratio (i.e., portion of current demand of principal amount recovered). This ratio is computed by using the following formula.

$$\text{Recovery Ratio} = \frac{\text{Amount of current demand of principal recovered}}{\text{Amount of current demand during the year}} \times 100$$

In the light of the above, relevant details pertaining to the amounts of current demand of principal and its recovery by the corporation during each of 10 years of the study period (together with a few calculations) are presented (Table – 1) for the purpose of evaluation of recovery performance of KSFC and for testing the hypothesis.

It is obvious from the table (Table – 1) that there has been a continuous increase in both the amount of current demand of principal (except for two years, 2008-09 and 2014-15 during which it declined marginally) and the amount of current demand of principal recovered (except during 2014-15). As a result, the Recovery Ratio (*i.e.,* percentage of current demand of principal amount recovered to current demand of principal amount) registered a continuous improvement except for three years (2011-12, 2014-15 and 2015-16).

During this 10-year period, a total of ' 4,62,094.72 lakh of principal amount fell due for payment (by the borrower-enterprises). The amount of current demand (principal amount) per annum increased from ' 26,394.29 lakh during 2007-08 to ' 64,358.64 lakh in the last year of the study period (2016-17) with an annual average of ' 46,209.47 lakh with CV of 33.17% and SD of ' 15,329.37 lakh indicating no wide variation in the recoverable amount from one year to another during the study period. Consequent to this increase, CAGR works out 9.32% and the skewness value is negative at (-) 0.27 indicating that the amount of current demand of principal is skewed towards negative value than the positive value during the study period. However, there is a significant improvement in the current demand of principal amount as the calculated value of '*t*' (11.14; linear regression – one-way ANOVA) is higher than table value of '*t*' (2.26; at 5% level of significance and degree of freedom being 9).

Table 1: Amount of current demand of principal and its recovery

Year	Amount (' lakh)		%age of Amount recovered out of Current Demand of Principal	Descriptive Statistics and Results of Regression			
	Current Demand during the year	Recovery out of Current Demand		Descriptive Statistics, etc.	Current Demand	Recovery out of Current Demand	Recovery Ratio
2007-08	26,394.29	13,433.96	50.90	Sum	462,094.72	397,037.81	-
2008-09	25,397.91	18,352.83	72.26	CAGR	9.32	16.07	6.17
2009-10	32,162.19	24,561.73	76.37	Mean	46,209.47	39,703.78	85.92
2010-11	34,473.96	30,732.96	89.15	SD	15,329.37	16,902.24	13.16
2011-12	45,484.40	38,702.03	85.09	CV	33.17	42.57	15.89
2012-13	55,550.21	49,587.86	89.27	Skewness	-0.27	-0.41	-1.88
2013-14	58,045.84	53,864.48	92.80	*F*	124.18	147.37	15.41
2014-15	57,858.00	52,435.80	90.63	*t*	11.14	12.14	3.93
2015-16	62,369.28	55,732.49	89.36				
2016-17	64,358.64	59,633.67	92.66				

Source: Table compiled based on the performance statistics collected from the Annual Reports and Operational Statistics of KSFC, 2007-08 to 2016-17 and the calculations made based on these details.

On the other hand, the amount of current demand of principal recovered increased at a much higher rate. During this 10-year period, the corporation recovered a sum of ₹3,97,037.81 lakh which works out to a Recovery Ratio of 85.92%. The annual recovery varied between ₹13,433.96 lakh (2007-08) and ₹59,633.67 lakh (2016-17) with an annual average working out to ₹39,703.78 lakh with CV of 42.57% and SD of ₹16,902.24 lakh (though on the higher side) indicating no wide variation from one year to another. Consequent to this increase, the CAGR works out to 16.07% which is much higher than that of current demand of principal amount of 9.32%. However, the negative skewness of (-) 0.41 indicates that the amount of current demand of principal recovered is skewed towards negative value than positive value during the study period. Most importantly, there is a significant improvement in the recovery of current demand of principal amount as the calculated '*t*' value (linear regression, one-way ANOVA) of 12.14 is higher than the table value of '*t*' of 2.26 (at 5% level of significance and degree of freedom of 9).

It may be noted here that the Recovery Ratio is influenced by both the recoverable amount (inverse relationship i.e., increase in recoverable amount reduces the

Recovery Ratio and vice-versa) and the amount recovered (positive impact i.e., increase in the amount recovered increases the Recovery Ratio and vice-versa). One can observe the increase in both the determinants (for majority of years of the study period). However, though the Recovery Ratio has registered a continuous increase (except during 2011-12, 2014-15 and 2015-16), it is not in commensurate with the increase in the amount recovered. This is due to increase even in the recoverable amount. However, there is a substantial improvement in the Recovery Ratio which varied between 50.90% (2007-08) and 92.80% (2013-14) with an average of 85.92%. Owing to increase in the Ratio from 50.90% (2007-08) to 92.66% (2016-17), the corporation recorded a CAGR of 6.17%. Further, there is no wide variation in the Recovery Ratio as the CV is only 15.89% (with SD of 13.16). However, the skewness is negative at (-) 1.88 and this indicates that the Recovery Ratio is skewed towards negative value than positive value during the study period. Still, there is a significant improvement in the recovery performance of KSFC during the study period as the calculated '*t*' value (linear regression, one-way ANOVA) of 3.93 is higher than the table value of '*t*' of 2.26 (at 5% level of significance and degree of freedom of 9). Besides, as the calculated '*F*' value of 15.41 is higher than the table value of '*F*' of 5.32, the overall regression is a good fit. Therefore, from the point of view of recovery of current demand of principal amount, the null hypothesis, H_O: There is no significant improvement in the recovery performance of KSFC during the study period, is tested and rejected.

Recovery of Current Demand of Interest Amount

The amount of current demand of interest represents the amount of interest which has become due for payment (by the borrowers) during current reporting period. It constitutes the second component of total recoverable amount. This amount assumes importance as the interest income, net interest spread, reported profit, etc., are influenced by the recovery of interest income due. In this backdrop, the relevant details pertaining to the amount of current demand of interest and its recovery are presented in (Table – 2) with a few calculations for analysis and for testing the null hypothesis.

It is unequivocal from the above that the amount of current demand of interest registered a continuous increase during the study period year after year except for the year 2014-15 during which it declined marginally. However, it increased from ' 8,183.44 lakh (2007-08) to ₹26,334.53 lakh (2016-17) with an annual average of ₹20,183.32 lakh and CV of 35.40 per cent (and SD of ₹7,145.60 lakh). Consequent to this increase, the CAGR works out to 12.40% and the skewness is negative at (-) 0.87 indicating that the amount of current demand of interest skewed towards negative value than positive value during the study period. A comparison of current demand of interest amount with that of principal amount shows that the share of interest due is substantial as it varied between 31% (2007-08) and 55.72%

(2010-11) of current demand of principal amount. However, there is a significant increase in the amount of current demand of interest as the calculated value of '*t*' of 7.31 is higher than the table value of '*t*' of 2.26 (linear regression, one-way ANOVA at 5% level of significance and degree of freedom of 9).

Table 2: Amount of current demand of interest and its recovery

Year	Amount (‘ lakh)			Descriptive Statistics and Results of Regression			
	Current Demand during the year	Recovery out of Current Demand	%age of Amount recovered out of Current Demand of Principal	Descriptive Statistics, etc.	Current Demand	Recovery out of Current Demand	Recovery Ratio
2007-08	8,183.44	6,132.84	74.94	Sum	201,833.20	187,030.45	-
2008-09	8,988.44	8,757.25	97.43	CAGR	12.40	14.86	2.10
2009-10	15,256.16	11,443.47	75.01	Mean	20,183.32	18,703.05	92.67
2010-11	19,207.64	17,350.70	90.33	SD	7,145.60	7,455.16	8.76
2011-12	20,801.24	19,330.56	92.93	CV	35.40	39.86	9.63
2012-13	24,504.70	23,654.17	96.53	Skewness	-0.87	-0.73	-1.48
2013-14	26,159.86	25,382.29	97.03	*F*	53.48	50.50	4.33
2014-15	26,151.53	25,541.90	97.67	*t*	7.31	7.11	2.08
2015-16	26,245.70	24,931.89	94.99				
2016-17	26,334.53	24,505.38	93.05				

Source: Table compiled based on the performance statistics collected from the Annual Reports and Operational Statistics of KSFC, 2007-08 to 2016-17 and the calculations made based on these details

On the other hand, the amount of current demand of interest recovered also increased incessantly (except during the last two years of the study period) varying between ₹6,132.84 lakh (2007-08) and ₹25,541.90 lakh (2014-15) with an annual average working out to ₹18,703.05 lakh with CV of 39.86% (and SD of ₹ 7,455.55 lakh). As a result of this increase, the CAGR works out to 14.86%. Again, the skewness is negative (-0.73) indicating that the amount of current demand of interest recovered is skewed towards negative value than positive value during the study period. In spite of this, the improvement in the recovery is statistically significant as the calculated '*t*' value of 7.11 is higher than the table value of '*t*' of 2.26 (linear regression, one-way ANOVA at 5% level of significance and degree of freedom of 9).

Consequent to the increase in both the recoverable amount and amount recovered (of current demand of interest), though the Recovery Ratio improved, it is not significant. This is because of the reason that increase in the recoverable amount causes the decline in the Recovery Ratio and the increase in the amount recovered results in the improvement in the Recovery Ratio. Therefore, the Recovery Ratio varied between 74.94% (2007-08) and 97.67% (2014-15) with an annual average of 92.67% with CV of 9.63% indicating no wide variation. However, the improvement in the recovery performance (as reflected by the Recovery Ratio from the point of view of current demand of interest) is statistically not significant as the calculated value of '*t*' of 2.08 is lower than the table value of '*t*' of 2.26 (linear regression, one-way ANOVA at 5% level of significance and degree of freedom of 9). Hence, from the point of view of recovery of current demand of interest amount, the null hypothesis, H_O: *There is no significant improvement in the recovery performance of KSFC during the study period,* is tested and failed to reject.

Table 3: Aggregate of current demand of principal and interest, and its recovery

Year	Amount (' lakh)			Descriptive Statistics and Results of Regression			
	Current Demand during the year	Recovery out of Current Demand	%age of Amount recovered out of Current Demand of Principal	Descriptive Statistics, etc.	Current Demand	Recovery out of Current Demand	Recovery Ratio
2007-08	34,577.73	19,566.80	56.59	Sum	663,927.96	584,068.26	-
2008-09	34,386.35	27,110.08	78.84	CAGR	10.12	15.70	5.07
2009-10	47,418.35	36,005.20	75.93	Mean	66,392.80	58,406.83	87.97
2010-11	53,681.60	48,083.66	89.57	SD	22,253.25	24,247.63	11.73
2011-12	66,285.64	58,032.59	87.55	CV	33.52	41.52	13.78
2012-13	80,054.91	73,242.03	91.49	Skewness	-0.44	-0.52	-1.88
2013-14	84,205.70	79,246.77	94.11	*F*	115.88	106.86	14.49
2014-15	84,009.53	77,977.70	92.82	*t*	10.76	10.34	3.81
2015-16	88,614.98	80,664.38	91.03				
2016-17	90,693.17	84,139.05	92.77				

Source: Table compiled based on the performance statistics collected from the Annual Reports and Operational Statistics of KSFC, 2007-08 to 2016-17 and the calculations made based on these details

Recovery of Current Demand of both Principal and Interest Amounts

After a detailed analysis of recovery of current demand of principal amount and of interest amount separately, now an attempt is made to combine both. This is due to the reason that the recovery performance of the corporation as a whole is usually examined considering both the principal and interest amounts due. In this backdrop, the relevant details relating to the aggregate of current demand of principal and interest amounts are presented in (Table 3) with a few calculations for analysis and for the purpose of testing the null hypothesis.

The aggregate amount of current demand of principal and interest registered a continuous increase during the study period (except for two years, 2008-09 and 2014-15) increasing from ₹34,577.73 lakh (2007-08) to ₹90,693.17 lakh (2016-17) with an annual average of ₹66,392.80 lakh and CV of 33.52% and skewness of (-) 0.44. As the calculated value of '*t*' of 10.76 is higher than table value of '*t*' of 2.26, there is a significant improvement in the recoverable amount. Similar type of changes can be observed even in the case of amount of current demand of principal and interest recovered. Here also, the improvement is significant as the calculated value of '*t*' of 10.34 is higher than the table value of '*t*' of 2.26. The changes/ improvements in these two determinants of Recovery Ratio are, more or less, similar to that when they were considered separately.

However, owing to the increase in both the recoverable amount and amount recovered, the Recovery Ratio registered more fluctuations during the study period – declined during four years (2009-10, 2011-12, 2014-15 and 2015-16). Overall, there is a substantial improvement in the ratio – increasing from 56.59% (2007-08) to 92.77% (2016-17) which is a commendable achievement. The average Recovery Ratio works out to 87.97% and CAGR is 5.07% which is, however, much lower than that in the amount of loan recovered. One of the reasons for this comparatively lower rate of CAGR is due to increase in the recoverable amount (10.12%) also. Further, the skewness is negative at (-)1.88 indicating that the Recovery Ratio has skewed towards negative value than positive value during the study period. Still, the improvement is statistically significant as the calculated value of '*t*' of 3.81 is higher than the table value of '*t*' of 2.26 (linear regression, one-way ANOVA at 5% level of significance and degree of freedom of 9). Therefore, from the point of view of recovery of aggregate of current demand of principal and interest, the null hypothesis, H_O: There is no significant improvement in the recovery performance of KSFC during the study period, is tested and rejected.

Recovery of Arrears and Current Demand of Principal and Interest Amounts

This takes into account both the arrears (*i.e.,* the amount due at the beginning of the year) and the current demand of both the principal and interest amounts. Further, total amount recovered (*i.e.,* both the principal and interest out of the aggregate of arrears and current demand) is considered. Hence, this ratio is considered as the overall Recovery Ratio. In this background, the relevant details are presented in (Table – 4) with a few calculations for the purpose of analysis and also for testing the null hypothesis.

Table 4: Aggregate of arrears and current demand of principal and interest, and its recovery

	Amount (' lakh)						
Year	Opening Balance	Current Demand	Total	Rescheduling	Recoverable	Amount Recovered	Recovery Ratio (%)
1	2	3	4	5	6	7	8
2007-08	52,150.53	34,577.73	86,728.26	6,868.25	79,860.01	41,191.44	51.58
2008-09	38,668.57	34,386.35	73,054.92	4,089.55	68,965.37	40,717.95	59.04
2009-10	28,247.42	47,418.35	75,665.77	927.79	74,737.98	46,130.14	61.72
2010-11	28,421.28	53,681.60	82,102.88	846.58	81,256.30	56,709.79	69.79
2011-12	24,546.51	66,285.64	90,832.15	616.40	90,215.75	64,751.76	71.77
2012-13	25,463.00	80,054.91	105,517.91	1,709.00	103,808.91	78,328.49	75.45
2013-14	25,483.80	84,205.70	109,689.50	1,485.61	108,203.89	82,906.10	76.62
2014-15	25,297.79	84,009.53	109,307.32	875.35	108,431.97	80,799.37	74.52
2015-16	9,672.33	88,614.98	98,287.31	1,860.78	96,426.53	83,547.33	86.64
2016-17	12,676.66	90,693.17	103,369.83	462.59	102,907.24	87,782.96	85.30
				Descriptive statistics and results of regression:			
				Sum/Average	914,813.95	662,865.33	72.46
				CAGR	2.57	7.86	5.16
				Mean	91,481.40	66,286.53	72.46
				SD	14,539.07	18,784.56	11.16
				CV	15.89	28.34	15.66
				Skewness	-0.26	-0.36	-0.36
				F	18.60	98.84	98.57
				t	4.31	9.94	9.93

Source: Table compiled based on the performance statistics collected from the Annual Reports and Operational Statistics of KSFC, 2007-08 to 2016-17 and the calculations made based on these details

Notes:

1) For years (i) 2009-10 and 2010-11, (ii) 2012-13 and 2013-14, and (iii) 2014-15 and 2015-16, there is some difference between the amount of closing balance (previous

year) and that of opening balance (current year). However, this difference is ignored here as it is immaterial.

2) Amount on account of rescheduling, funding and status change in the account is subtracted from the total recoverable amount.

From the above, it is unequivocal that the opening balance (*i.e.,* arrears of principal and interest) is lower in five years (2008-09, 2009-10, 2011-12, 2014-15 and 2015-16) than in the immediately preceding years. This is a good sign. Further, it declined from ₹52,150.53 lakh as at 1 April 2007 to ₹12,676.66 lakh by 1 April 2016. On the other hand, the amount of current demand of principal and interest registered a continuous increase during the study period except for two years (2008-09 and 2014-15). It increased from ₹34,577.73 lakhs (2007-08) to ₹90,693.17 lakhs (2016-17). Consequently, total recoverable amount (i.e., before subtraction of rescheduled loan amount) increased during all years (except three years, 2008-09, 2014-15 and 2015-16) of the study period. The total recoverable amount increased from ₹86,728.26 lakh (2007-08) to ₹1,03,369.83 lakh (2016-17). However, this recoverable amount is reduced to some extent on account of rescheduling of loan, fresh funding (to the borrowers from whom the amount is due) and also due to changes in the status of the account.

When a borrower-enterprise faces financial difficulty making it unable to repay the amount, it may request the lender for some relaxation in the original terms of credit. If the lender is convinced, it may provide some relief to the borrower-enterprise and this adjustment is called, 'restructuring of loan account'. As per RBI guidelines, restructuring may involve alteration of repayment period, repayable amount, amount of instalment, rate of interest, etc. It is intended to nurture an otherwise viable unit (which has adversely been impacted) back to health. As a result, the restructuring avoids a loan account from becoming a defaulter and in the process, the corporation may lose some amount due to the relaxation given to borrowers. However, the amount of loan rescheduled and status change in the account is subtracted from the total recoverable amount to determine the recoverable amount (Column 4 – Column 5 = Column 6 in the above table). There is a wide variation in the recoverable amount (net of rescheduling, etc).

Still, the recoverable amount (net of rescheduling, etc) registered a continuous increase year after year during the study period except 2008-09 and 2015-16. It varied between ₹68,965.37 lakh (2008-09) and ₹1,08,431.97 lakh (2014-15) with an annual average of ₹ 91,481.40 lakh and CV of 15.89% (and SD of ' 14,539.07 lakh) indicating no wide variation in the recoverable amount from one year to another during the study period. As a result, the CAGR works out to 2.57%. However, the skewness is negative (-0.26) indicating that the recoverable amount is skewed towards negative value than positive value. In spite of all these, there is a significant improvement in the recoverable amount as the calculated value of '*t*' of 4.31 is higher than the table value of '*t*' of 2.26 (linear regression, one-way ANOVA at 5% level of significance and degree of freedom of 9).

On the other hand, the amount recovered registered a CAGR of 7.86% owing to increase in the amount recovered from ₹41,191.44 lakh during 2007-08 to ₹ 87,782.96 lakh during the last year of the study period and the annual average working out to ₹66,286.53 lakh with CV of 28.34% (and SD of ₹18,784.56 lakh). Even in this case, the skewness is negative at (-) 0.36 indicating that the amount recovered is skewed towards negative value than the positive value during the study period. Nevertheless, the increase in the amount recovered is statistically significant as the calculated value of '*t*' of 9.94 is higher than the table value of '*t*' of 2.26 (linear regression, one-way ANOVA at 5% level of significance and degree of freedom of 9).

Consequent to the changes in both the determinants of Recovery Ratio (i.e., recoverable amount and recovered amount), one can observe a substantial improvement in the overall Recovery Ratio – increasing continuously year after year except during 2014-15 and 2016-17, and increasing from 51.58% during the first year of the study period (lowest) to 85.30% during the last year of the study period. Highest Recovery Ratio was during 2015-16 during which the corporation recovered 86.64% of the recoverable amount. On an average, the corporation recovered 72.46% of the recoverable amount during this 10-year study period with CV of 15.66% indicating no wide variation in the ratio from one year to another during the study period. Further, the calculated value of '*F*' of 98.57 is higher than the table value of '*F*' of 5.32 indicating that the overall regression is a good fit. The calculated value of '*t*' of 9.93 is higher than the table value of '*t*' of 2.26 (linear regression, one-way ANOVA at 5% level of significance and degree of freedom of 9). This shows that there is a significant improvement in recovery performance of the corporation during the study period. Hence, from the point of view recovery of both the arrears and current demand of both principal and interest, the null hypothesis, H_O: There is no significant improvement in the recovery performance of KSFC during the study period, is tested and rejected.

This is also supported by the Regression Results (Table – 5) and Co-integration Results (Table – 6). Table – 5 presents the regression results for the two variables viz., arrears and current demand of both principal and interest on the one hand, and its recovery on the other.

Table 5: Aggregate of arrears and current demand of principal and interest, and its recovery – regression results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Aggregate	1.050236	0.048699	21.56567	0.0000
C	-6669.071	4595.204	-1.451311	0.1847
R-squared	0.983089	Mean dependent var		91481.40
Adjusted R-squared	0.980976	S.D. dependent var		14539.07
S.E. of regression	2005.355	Akaike info criterion		18.22189
Sum squared resid	32171601	Schwarz criterion		18.28240
Log likelihood	-89.10943	Hannan-Quinn criter.		18.15550
F-statistic	465.0781	Durbin-Watson stat		0.824834
Prob(F-statistic)	0.000000			

Source: Results obtained from OLS model processed through EViews software.

It can be seen from the table (Table – 5) that there exists a significant relationship between 'aggregate of arrears and current demand of principal and interest', and 'its recovery' from year to year basis based on the parameters of Ordinary Least Square (Regression) Test. The probability value of 0.0000 indicates that both the variables are interrelated. R^2 value of 0.983089 indicates the goodness fit of the model where the model of regression between 'aggregate of arrears and current demand of principal and interest' on the one hand, and 'its recovery' on the other is 98% fit in establishing the relationship between the two variables.

Table 6: Aggregate of arrears and current demand of principal and interest, and its recovery – co-integration results

Unrestricted Co-integration rank test (Trace):				
Hypothesized No. of CE(s)	Eigen value	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None*	0.829395	23.05014	15.49471	0.0030
At most 1*	0.671384	8.902924	3.841466	0.0028
Unrestricted Co-integration rank test (Maximum Eigen Value):				
Hypothesized No. of CE(s)	Eigen value	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None*	0.829395	14.14722	14.26460	0.0522
At most 1*	0.671384	8.902924	3.841466	0.0028

Source: Results obtained from Johansen Co-integration Model processed through EViews software

In the light of above, the co-integration results between variables, 'aggregate of arrears and current demand of principal and interest' on the one hand, and 'its recovery' on the other, are presented in (Table – 6)

It can be seen from table (Table - 6) that there are two co-integrating equations from Trace value with significance and one co-integrating equation at none from maximum eigen value test with significance at 5% level. As two co-integrating equations at trace test are obtained, it is evidenced that there exists co-integration between both the variables.

Major Findings

A comprehensive analysis of recovery performance of the corporation has enabled to identify the following.

- It is unequivocal from the above factual analysis that the recovery performance of the corporation is satisfactory and there is a significant improvement in the recovery performance during the study period. This is true in three out of four Recovery Ratios used to evaluate the recovery performance of KSFC. The only recovery ratio wherein the improvement is statistically not significant is from the point of view of recovery of current demand of interest.
- Another important aspect is the hard truth that the overall Recovery Ratio (average for the 10-year study period) is only 72.46%. This means that the remaining 27.54% of recoverable amount is not recovered. This is one of the root causes for the mounting NPAs which requires higher amount of Provision in accordance with the Prudential Norms of the Reserve Bank of India which in turn reduces the amount of reported profit. This is because of the reason that the amount of Provision and bad debt (i.e., loan loss assets) is a charge to the Statement of Profit and Loss.
- In all the four variables and also their Recovery Ratios, it is observed that there was no consistency in the performance of the corporation – improvement in majority of the years but declined during a few years of the study period.

Suggestions

Based on the factual analysis of performance of the corporation, a few suggestions are offered below.

- In the light of inconsistency in the recovery performance of the corporation, it is suggested that the corporation should now accord importance for improvement in its performance year after year continuously. Consistent improvement is the need of the hour.

- As the average recovery ratio is less than 75%, it is necessary for the corporation to improve its recovery performance. For this purpose, the corporation may set the target for each year and for each of its branch offices. By providing necessary facilities and delegating adequate powers, the branch offices should be made accountable to improve their recovery performance and to achieve the target ratio. This in turn helps the corporation to improve its recovery performance.

Conclusion

Based on the analysis of recovery performance of the corporation, it can be concluded that the achievement of the corporation is commendable. However, there is a scope for further improvement which the corporation has shown in one or the other years of the study period but allowed it to decline in other years. Hence, it should now aim at consistent improvement in its recovery performance.

REFERENCES

Inchara P. M Gowda. (2017). KSFC – In the service of MSMEs. *Money Wise*. 5(9): 9-12.

Jean-Paul Betbèze. (June 2014). Financing SMEs in France: *Revue d'Économie Financière*. 0(2): 31-8 (based on translated version from French).

Kondaiah Swamy A & Kovalli Bhanu Prakash. (2012). Non-perfoming assets of scheduled public sector banks – Causes & cures. *International Journal of Innovative Research & Development*. 1(6): 481-95.

Md. Saidur Rahman. (2011). Credit risk management practices in banks: An appreciation. *Journal of Islamic Economic, Banking and Finance*. 7(3): 37-62.

Meenakshi Rajeev & Mahesh H P. (2010). *Banking sector reforms and NPA: A study of Indian commercial banks*. Working Paper 252. The Institute for Social and Economic Change. Bengaluru.

Monika Kashyap. (2014). Asset quality of Indian banks: An empirical analysis. *Journal of Institute of Public Enterprise.* 37(1/2): 5.

Monteiro, Mohan N J. (2015). Managment of nonperforming assets in commercial banks. Unpublished thesis submitted to the University of Mysore.

Parameshwara. (2015). Recovery management of commercial bank loans to small scale industries – A study in Dakshina Kannada and Udupi districts. Unpublished Thesis submitted to Mangalore University.

Pradip Kumar Pradhan. (September 2014). The impact of non-performing assets in the performance of financial institutions: A case study of OSFC. *Sai Om Journal of Commerce & Management*. 1(9): 11-7.

Prime Minister's Task Force (2010). Report of Prime Minister's Task Force on Micro, Small and Medium Enterprises. Ministry of Micro, Small and Medium Enterprises, Government of India, p. 7 retrieved on 1 March 2019 from http://*msme.gov.in/Write Read Data/DocumentFile/PM_MSME_Task_Force_Jan2010.pdf.*

Ravichandran K & Mayilsamy R. (2008). Non-perfoming **assets in cooperative banks**. Abhijeet Publications. Delhi.

Satpal. (2014). A comparative study of nonperforming assets in public and private sector banks in the new age of technology. *International Journal of Current Engineering and Technology*. 4(4): 2468-75.

Srinivas K. T. (2013). A study on financial assistance to small and medium enterprises by KSFC. *Abhinav*. 2(11): 20-30.

Vinit Rokade & Mukunda Sonavane. (2014). managing non-performing assets of banks. *Sai Om Jourznal of Commerce and Management*. 1(3): 21-9.

———————————

(The author acknowledges the support provided by the ICSSR through the sanction of Post-Doctoral Fellowship)

The Indian Journal of Commerce
Vol. 72, No. 2, April-June, 2019

Economic Partnership of Couples: A Study of Joint Account Holders

HANUMAN PRASAD, TWINKLE JAIN AND NEETU PRASAD

Abstract: *Joint bank account refers to a type of bank account which is shared by two or more people-both are equally liable for it and share equal right against it. Marriage along with social partnership is also the symbol of economic partnership which also binds a couple financially. This particular study deals with economic partnership of couples exercised through their joint bank account which aims to extract the boosters as well as restricting factors that influences the participation level of joint holders towards the activities of their account. The sample was collected through 440 married joint bank account holders. The results of the study showed that maximum males are primary joint bank account holders and females are secondary holders.*

Keywords: *Joint Bank account, marriage, economic partnership, gender bifurcations*

Introduction

A bank is a financial institution that accepts deposits and lends further thereby mobilizing savings into loans i.e from depositor to acceptor. For undergoing such transactions, a person needs to have an account with bank. Basically, a bank account is an arrangement with a bank which allows a person to keep his money in the bank and use it according to the requirement. A joint bank account is the category of account which is shared by two or more people. Any individual who is a member of joint account equally has a right to withdraw amount from that account or deposit into the same. All members are equally responsible for all the liabilities in connection with that account and thus for assurance a written consent from all parties is undertaken. It is an excellent option for two or more individuals sharing common financial interests but the only requirement is to maintain trustworthiness between all of them (Webster, 2004).

Dr. Hanuman Prasad is Professor, Faculty of Management Studies, Mohanlal Sukhadia University, Udaipur and Twinkle Jain is JRF, Faculty of Management Studies, Mohanlal Sukhadia University, Udaipur and Neetu Prasad is visiting faculty member.

The main objective behind opening joint account is to ensure future security of the other partner specially non-earning spouse so that in event of any mis-happening the surviving partner could hold on the residual amount and move on in life financially. On the other hand, joint account represents the financial partnership of couples where the act/step of one will definitely have an impact on the either both positively or negatively.

A healthy marriage promotes financial success because married people who behave as true financial partners do financially better than individuals (Waite and Gallagher, 2000). Marriage has an important connection with joint account because a joint account is considered as a symbol of economic partnership of couples which serve as pooling of common financial interest into one.

This paper describes the importance of joint account with reference to married couples because marriage is a crucial life event that is likely to transform money into "marriage money" (Lott, 2017).Here, married persons who hold joint bank account with their spouses were considered and related information was explored.

Review of Literature

Mao et al.(2017) investigated the effect of couple's financial behaviour on their relationship satisfaction and the mutuality of their decisions regarding their financial obligations and commitments.Understanding the importance of financial behaviour on a couple's relation was stated most beneficial for young couples who are just new in their relationship as finance play a vital role in shaping the future of their relation. Sharing financial perspective or having similar financial view points lay a strong foundation of their relation and make it even more stronger with time.

Lott (2017) showed the transformation of single person's money management to joint money management with the attachment of feelings. Joint pool management of money is the most common choice of proper household management. According to the study, along with birth and marriage, a change in money management system is considered as natural phenomena of life. He showed the impact of German taxation system on overall money management system of couples. Mendiola et al.(2017) highlighted the importance of marriage in one's life and more importantly the level of dominance of male and female regarding their contribution in their house. Sharing of common monetary goals, proper argument resolution with mutual understanding, management of marital debt, maintainence of positive financial status etc. nurtures the financial relationship between the couple beyond their dominance and ultimately help them to realize marital satisfaction. An important conclusion was drawn for females that if their earning is not the main source for the family or more than her husband than she is likely to share the financial responsiblity which may be not so in case she earns more.

Copur and Eker (2014) highlighted a very important point that financial matters serve as a base for financial as well as marital satisfaction. Marraige was stated as an economic partnership and social safety net where many factors such as income, employment, assets, debt management, savings, spending etc. are responsible for maintaing the quality and stability of married life. Family attributes about financial independence, self realiance towards financial transcations and prudent/imprudent financial behviour are responsible for shaping the financial attitude of the kids from the very beginning. Financial satisfaction within couples was directly linked with marital satisfaction and happiness. Britt et al.(2010) brought out that financial issues are one of the major cause behind marital conflict. The study brought forward various factors which influence marital conflict regarding financial issues such as financial management strategies, spending behaviour, donations, allocation of resources etc. Couples with similar financial ideology realize more satisfaction in their marriage rather than opposite view points. Many new concepts were realized through the study such as negotiation related to financial discussions, net worth in term of resources (energy and time), collective bargaining (both husband and wife agrees to common point) etc.

Addo and Sassier (2010) symbolized joint account as a denoter of higher relationship satisfaction among couples. It was believed that through joint account couples can strategize collectively for their fiscal management more effeciently and effectively which may be lacking in individual accounts. Wedding turns out to be an important turning point in their financial management planning where the individual management systems becomes a joint one with attachement of feelings thereby improving the relation quality and achieving higher satisfaction. Dean et al.(2007) laid the fact that couples involved much in economic integration realize less quality on their relation and take lesser efforts to nourish them. Materialistic nature of the spouse may create a barrier in smooth flow of their relation as financial problems could become a great issue which can be solved easily but its not possible because of their nature. Infact,the study stated this materialism to be a cause of finanacial distress among couples .The model laid in the study concluded that wife's materialism is framed by the husband's perception and this nature definitely impacts their relationship.

Allen et al.(2007) brought out changes in communication level among parents and children due to attitude towards credit and money management and its usage. Positive interaction was noticed when the family jointly plans the financial budget and vice-versa if plans are different for both the parties. Children often used imagined interactions (Honeycutt,1991) where they experience mentally the upcoming conversation with their parents related to finance in order to rehearse for the same if the family financial communication is less so that they could easily state whatever they feel in shorter span of time. Harrington (2005) reflected the egoistic issues between the couples when both are earning. The study raised the problem that both want to have control over the household money as both are contributing towards it which creates domestic financial problem often leading to miscommunication, hiding of vital financial information, less flow of information to the other etc.

Pahl et al.(2000) focussed on accounting and accountability patterns of home management practiced by couples. He concluded that practices had a direct impact on the success/failure of movement of domestic economy. In fact, it shows the economic position of the household. The study quoted that financial arrangement of a couple shows the depth of their relation. It stressed on having banking habits so as to map the transactions history and improve it further. Lastly, it even explained the importance of having a joint account for the couples through a case study. Waite and Gallagher (2000) concluded that married people do better financially than singles, not because financially successful people get married, but because married people who behave as true financial partners do better financially. A healthy marriage promotes financial success .Further it also stated that accepting a spouse's solution during a disagreement establishes trust and interdependence which is very important for a healthy relationship.

Cheal (1993) studied the financial strategies of Canadian families where the importance of control over money was shown with reference to financial position of a family in nearby future. The study showed the contribution of husbands as income earner and wife as homemakers for the family which together beholds the financial resources and keep the control under them to manage them properly. However, it also depicted that in absence of contribution from wife towards family income there is reduction in the control over monetry decision regarding her own family. Here,a very important term was coined "family income" which depicted the joint efforts of husband and wife in family financial resources. Mc Conocha et al.(1993) pointed out that money in marriage is the symbol of control, security, self esteem and love. The greater the portion of income contributed by a partner, greater the power excersised by him/her in the financial decsions. The study focussed on specific tasks which must be followed in every ideal household money management such as setting overall budget, creating saving and investment plan, settle down different credits on time and ultimately develop a blue print of overall financial decision making of their domestic economy. It was found out traditional couples are most likely to pool their resources together, bifercate their financial and monetry responsiblities, manage their accounts together etc. which may vary with non-traditional couples such as they are more likely to take separate financial decsions, involve together mostly in “big decsions”, affected by trust issues, lack of legal commitment etc.

Treas (1993) explained the importance of joint bank accounts for husbands and wives. According to the study, joint bank account establishes the “we” identity among couple’s financial relationships where act of one affects both. Having common economic partnership also binds them together financially which represents interests of both for the long term. Pahl (1990) displayed the whole chain from household spending, its saving and ultimately the control of household income in the hands of couple either as jointly or separately. Marriage was stated as a joint partnership where the money is both for them not on individual basis. It was brought out that earning spouse mostly husbands usually have larger control over monetry decisions although he delegated monetary reponsiblities to his wife but still female spouse does not much likely to spend them on herself. Presence of joint bank account reflected the jointness in financial arrangements, pooling of resources, sharing of responsiblities etc. between the couple.The study concluded on a note that if male spouse is only the earning member out of the two, he delegates all day to day financial responsiblities to his wife which is not so if female spouse is also earning-she fulfill all responsiblities by herself only. Carroll (1982) correlated the educational background of the spouses with their financial management technique and gave due importance to employment status of female spouse in the contribution of finance for the family. The study conducted had put forward two very common problems of every household i.e. budgeting and lack of savings. For that it also provided the solutions such as written financial goals, record keeping, family financial decision making, debt obligations, understand the importance of money etc.

On the basis of above study, the following things could be drawn out:

- Marriage is not only termed as social partnership with respect to society but also economic/partnership of couples where two individuals are automatically merged into common financial interests where act of one will impact the other too.
- Wedding prove to be an important turning point in their financial management planning where the individual management systems becomes a joint one with attachment of feelings thereby improving the relation quality and achieving higher satisfaction.
- Money in marriage is the symbol of control, self-respect, security and love which depicts the financial control over the activities of both the spouses specially that are affecting both, creating financially secured life for the other specially non-earning one etc.

- Joint bank account establishes the "we" identity among couples which binds the couples financially and reflects the jointness in financial arrangements, pooling of resources for common use, sharing of financial responsibilities etc. Through joint account couples can strategize collectively for their fiscal management more effeciently and effectively which may be lacking in individual accounts.
- Family income symbolizes the common pooling of resources by the joint efforts by husband and wife both monetarily and non-monetarily (mental support, sharing financial responsibilities, delegation of authority etc.) which is for use of everyone no matter which spouse has contributed financially how much.
- Educational background and financial contribution towards family may act as one of the barrier which debars one of the spouse specially female spouse to take financial management decisions regarding their family.

Methodology

This study is based on exploratory research design that aims to identify the factors that are responsible for sustaining economic partnership related with the joint account between couples. A well-structured questionnaire was developed. An instrument consisting of 27 items was included in questionnaire to map the usage of Joint Account (based on opening, operation and control of joint bank account) representing economic partnership. The respondents were asked to reply on 5 point Likert type rating scale ranging from "Strongly Agree to Strongly Disagree". The data was collected through Google Form which was mailed to the respondents. Around 500 joint account holders were approached for the purpose out of which sample size was finalized up to 440 respondents which are married and hold joint bank account with their spouse.

Status of Economic Partnership: Joint Account Patterns

In primary section of questionnaire, a question related with the joint account pattern was inserted with an aim to identify the participation level of male and female in their joint bank account. The identified factors may be used to enhance the equal participation of both counterparts.

Here, 272 were males and 168 were females. Out of the respondents, 67.3% i.e 296 play the role of primary holders and 32.7% i.e 144 of secondary holders in their joint bank account.

The following graph depicts the combination of gender bifurcations and its relation shared by the joint account holders. The maximum status of primary holder out of their joint account holder are the males(232) which depicts that still the male dominates the banking transactions of family either due to their strong educational background or earning status. The lowest combination is of males holding a secondary holder position (48) in their joint bank account.

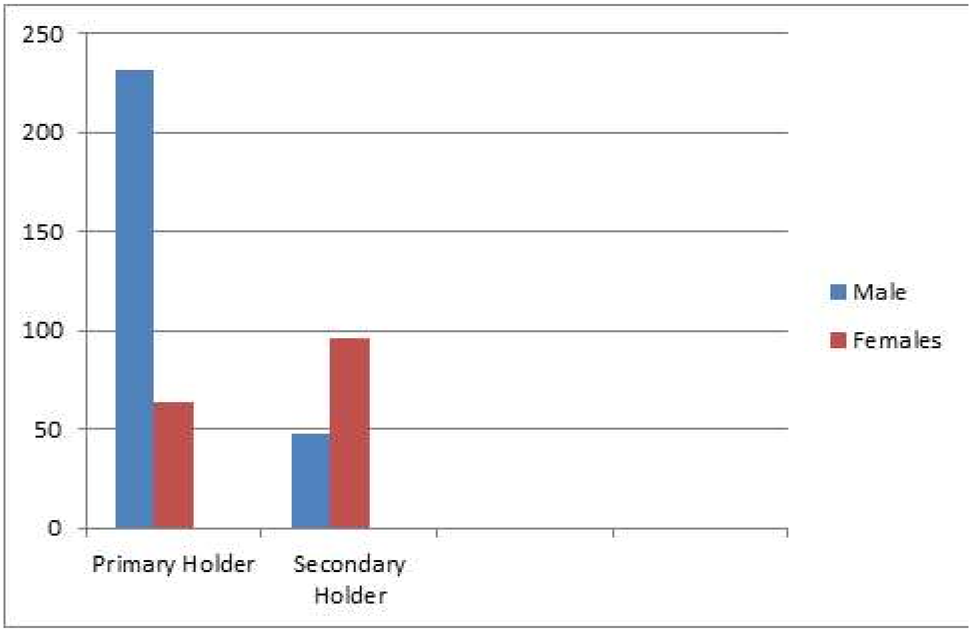


Figure 1: Holders of joint bank account

Females holding primary holder position (64) are encouraging. Again for females, holding secondary position (96) in their joint bank account is common and is maximum among both holder types.

So, to statistically confirm that account holder position/status is unaffected by gender, a hypothesis was framed as follow.

H_{01}- Status of account holder is independent of gender

To test this hypothesis chi square test was used. The results obtained are presented in Table 1.

Table 1: Gender v/s account holders holder status cross tabulation

		Count		
		A/c Holder Status		Total
		Male	Female	
Gender	Male	232	40	272
	Female	64	104	168
	Total	296	144	440

Table 2: Results of Chi-Square tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	105.085[a]	1	.000		
Continuity Correction[b]	102.952	1	.000		
Likelihood Ratio	105.921	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	104.846	1	.000		
N of Valid Cases	440				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 54.98.

b. Computed only for a 2x2 table

From the above table, the p value(á) obtained is 0.000 which is less than 0.05 which tends to reject the null hypothesis. This statistically proves that gender have an impact on holding patterns of their joint bank account. Mostly males hold primary holder position and females hold secondary holder position for their joint bank account which shows prima facie this intention that the joint account will be operated by male counterpart only.

Reliability

The instrument consisting of 27 statements was used to check reliability. Cronbach alpha value of (α)=0.707 was found which explains that the instrument is reliable.

Economic Partnership Factors

To check the appropriateness of factor analysis on the current data set KMO and Bartlett's Test was applied.

Table 3: KMO and Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.806
	Approx. Chi-Square	11028.760
Bartlett's Test of Sphericity	Df	351
	Sig.	.000

The output of KMO is 0.806, which is greater than 0.5 indicate the adequacy of sample and thus factor analysis can be carried out. Bartlett's Test of Sphercity is done with á=0.05.The p- value (sig.) is 0.000<0.05, hence the factor analysis is valid.

For further exploration, factor analysis was employed which aims for reduction of large data into a set of variables which include common underlying dimensions called factors. Thus, after checking the adequacy, the factors are extracted on the 27 items formulated for the purpose of knowing the elements which facilitate joint account for couples. The Principal Component method is used for extraction of factors and method chosen for rotation is Varimax. The results were obtained using SPSS 20. Five factor solutions have been extracted having criteria of eigen values more than one. The factor solution has explained 70.38% variance. The first factor is named as Operational Factors for Economic Partnership which account for 32.97% of the variability, second component Co-operative Factors for Economic Partnership is responsible for 12.39 % variability, third component Depriving Factors for Economic Partnership responsible for 8.93% and fourth component Nurturing positive attitude Factors in Economic Partnership is responsible for 8.31% and fifth component Inspiring factors for Economic Partnership for 7.71% variability.

Therefore, it can be concluded that first factor has the highest relative importance with the sustenance of economic partnership as highest variance is explained by this. The level of variance decreases with the increase in no. factor. The variables having factor loadings of above 0.5 have been clubbed into one factor. The labels of factors with factor loadings are represented in Table 4.

Table 4: Labelling of extracted variables

No.	Extracted Components	Label	Factor Loading
1.	Operational Factors for Economic Partnership	V1	.828
		V3	.903
		V4	.824
		V5	.853
		V7	.563
		V8	-.570
		V9	.597
		V11	.830
		V12	.811
		V13	.904
		V15	.725

Contd...

		V21	.816
		V22	.873
		V27	.575
2.	Co-operative Factors for Economic Partnership	V2	.795
		V6	.702
		V10	.616
		V16	.553
		V20	.589
3.	Depriving Factors for Economic Partnership	V14	-.536
		V19	.752
		V26	.810
4.	Nurturing positive attitude Factors in Economic Partnership	V17	.742
		V18	.670
5.	Inspiring factors for Economic Partnership	V23	.772
		V24	.708
		V25	.826

Factor wise description

Factor 1: Operational Factors for Economic Partnership: The first factor comprised of all those variables which helps a bank account holder to be alert about each transaction taking place in their account such as being in continuous touch with summaries and statements, having mobile alerts, informed about amount debited and credited, loans taken, have access to plastic money etc.

However, it is important to mention that one variable of factor one has higher negative loading. It would be unfair if it is excluded thus this variable has been negatively viewed and considered in this factor. The variable that the account is operated in absence of partner is taken as operated in presence.

Factor 2: Co-operative Factors for Economic Partnership: The second factor is the combination of all those variables which collaborate the mutual activities of couples regarding their joint account such as having a dialogue with each other before undergoing any transaction, taking mutual decisions regarding investments/loans from their account, being aware about the partner's activities etc.

Factor 3: Depriving Factors for Economic Partnership: The third factor consists of all those negative aspects which retrains a joint account holder (primary/ secondary) from properly utilising its all benefits or operate it. Weak educational background was stated as one of the major reason behind it. Along with it, lower or no contribution towards their joint account also debars them from using it or negatively influences their participation rate.

Like first factor, in this factor also one variable had negative loadings thus this was also considered and viewed negatively. The statement that partner have access to plastic money was viewed as do not have access to plastic money related to joint account like Debit Card, Credit Card etc.

Factor 4: Nurturing positive attitude Factors in Economic Partnership: The fourth factor comprised of two variables which showed the positive attitude from one partner towards the other irrespective of their account holding position. Encouragement from one partner to another to learn and operate the account with all rights and its further impact on their personal relation in a positive way was the main highlight of the factor.

Factor 5: Inspiring factors for Economic Partnership: The fifth factor is important among all above factors just because it depicts the motivators which influence a couple to have a joint bank account for them. The reason came out was mainly that marriage encouraged them to open such account and were to ensure future security for the non-earning spouse. Also, operation by the other partner in case of any mis-happening also inspires them to have a joint account so that transactions could normally be undertaken.

Joint Account Usage: Gender wise Analysis

After identification of economic partnership in joint account factors, it was desired to examine the use of joint account with reference to these factors by male and females. Thus to statistically confirm difference in factors from the gender perspective following hypotheses were framed.

H_{02}- There is no significant difference between male and female respondents with regard to operation of joint account

Similarly, null hypotheses for the other four factors were framed with respect to co-operative factors, depriving factors, nurturing positive attitude factors and inspiring factors from H_{03} to $H_{06.}$

The above hypotheses were tested using t test for independent samples. The results obtained are shown in table below.

Table 5: Independent samples t-test values

	t	df	Sig. (2-tailed)
H_{02}	16.000	438	.000
H_{03}	-9.118	438	.000
H_{04}	-2.763	438	.006
H_{05}	-4.184	438	.000
H_{06}	-1.909	438	.057

It can be seen from the above table 5 p-value for the first four H_{02}-H_{05} has been rejected as p value is less than 0.05 which means that significant difference exist between male and female respondents with reference to first four factors related with joint account.

However, hypothesis for inspiring factors(H_{06}) has marginally been failed to reject as the p-value obtained is 0.057 which concludes that for male as well as female counterparts inspiration is most important which helps them to take active participation in working of their joint bank account.

Table 6: Group statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Factor 1	Male	272	62.76	5.982	.363
	Female	168	47.14	14.199	1.095
Factor 2	Male	272	14.62	5.460	.331
	Female	168	18.95	3.629	.280
Factor 3	Male	272	9.00	2.160	.131
	Female	168	9.57	2.020	.156
Factor 4	Male	272	8.35	1.628	.099
	Female	168	8.95	1.136	.088
Factor 5	Male	272	13.44	2.162	.131
	Female	168	13.81	1.597	.123

For Factor 1,an analysis of means shows that mean average of male respondents (62.7) was quite high than their counterparts (47.17) which means that despite of having joint account (financial inclusion) to their participation in banking is very less. Furthermore, to this deviation of females was also quite high than males which is an indication that many females rarely operated their joint account.

Three hypotheses which have been rejected are related to cooperative, depriving and nurturing factors. These factors are basically related with dependence on counterparts. In a way, it can also be said that these factors may create some hurdles for free use joint account. Higher mean values of females (18.95,9.57 and 8.95) respectively for all these three factors is an indication that they are still dependent for operating joint account. Their support to counterparts for using joint account is higher thus they are deprived of using directly joint bank account related facilities. In a way, it can be concluded that the route to operate joint account related services passes through their counterparts.

Conclusion

From the literature reviewed, male dominance is common in households especially in financial matters (Mendiola et al. 2017). Greater proportion of males being primary account holder in present study also reflects the fact. Through joint account a couple can finnacially strategize their resources and use it effeciently. Wedding proves to be a turning point in an imdividual's financial management where things become joint one (Addo and Sassier, 2010). Therefore, financial hospital, consultants and banking institution need to train couples with reference to above five factors identified in the study. Factors identified consist of operational, cooperative, depriving, nurturing positive attitude and inspiring factors.

Usually it has been seen that many couples or any counterpart of couple is not aware about operating and tracking of account thereby unaware counterpart does not have control over such joint account. A chain of operation of joint account passes through male counterparts to female counterparts. Proper training to both members of couple would develop financial discipline resulting in financial healthiness. Training couples in cooperative factor would promote financial partnership among couples. Due to which complain of female counterpart about keeping aloof from financial decisions would be solved. It would prove to be double edged sword as on one hand female member will feel financially empowered and on the other participative financial decision would be optimum. It was surprising to note that variables which tend to deprive one of the member of couple form joint account services were grouped together. The joint account holders must be informed that both the members have equal access to bank account irrespective of their educational background as a literate person can also handle bank account efficiently. Similarly nurturing positive attitude and inspiring factors tend to build healthy relationships among couples. Thus banks can market joint account highlighting this finding that "have healthy family and financial life, have a joint account'. Banks need to channel this message among married persons that joint account can develop healthy environment in family and also train their counterpart in operating bank account. Thus in absence of male counterpart, female counterpart would easily handle bank account.

The study further proposes that the factors identified may further be examined on gender and account holder type's continuum. It would suggest whether difference in opinion of above grouping variables exist with reference to identified five factors.

REFERENCES

Addo, F. R., and Sassier, S. (2010). Financial arrangements and relationship quality in low-income couples. *Family Relations*, 408-423.

Chawla, D., and Sondhi, N. (2011). *Research Methodology: Concepts and Cases.* New Delhi: Vikas Publishing House Pvt. Ltd.

Cheal, D. (1993). Changing household financial strategies: Canadian couples today. *Human Ecology*, 197-213.

Cooper, D. R., Schindler, P. S., and Sharma, J. K. (2013). *Business Research Methods.* New Delhi: McGraw Hill Education (India) Private Limited.

Copur, Z., and Eker, I. (2014). The relationship between financial issues and marital relationship. *International Journal of Arts and Science*, 683-697.

Dangi, H., and Dewen, S. (2016). *Business Research Methods.* New Delhi: CENGAGE Learning.

Dean, L. R., Carroll, J. S., and Yang, C. (2007). Materialism, Perceived Financial problems, and marital satisfaction. *Family and Consumer Sciences Research Journal*, 260-281.

Lott, Y. (2017). When my money becomes our money: changes in couples' money management. *Social Policy and Society* , 199-218.

McConocha, D. M., Tully, S. A., and Walther, C. H. (1993). Household money management: recognizing non-traditrional couples. *The Journal of Consumer Affairs*, 258-283.

Pahl, J. (1990). Household spending, personal spending and The control of money in marriage. *Sociology*, 119-138.

Pahl, J. (2000). Couples and their money: patterns of accounting and accountability in the domestic economy . *Accounting, Auditing and Accountability Journal*, 502-517.

Annexure-1

Table 7: Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative%	Total %	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.205	37.797	37.797	10.205	37.797	37.797	8.901	32.967	32.967
2	4.131	15.299	53.097	4.131	15.299	53.097	3.345	12.390	45.358
3	2.186	8.096	61.193	2.186	8.096	61.193	2.412	8.934	54.292
4	1.403	5.196	66.389	1.403	5.196	66.389	2.243	8.307	62.599
5	1.078	3.991	70.380	1.078	3.991	70.380	2.101	7.781	70.380
6	.998	3.696	74.076						
7	.925	3.426	77.502						
8	.767	2.841	80.343						
9	.707	2.617	82.960						
10	.667	2.471	85.431						
11	.553	2.049	87.481						
12	.492	1.824	89.305						
13	.457	1.692	90.996						
14	.407	1.508	92.504						
15	.343	1.270	93.774						
16	.251	.931	94.706						
17	.216	.798	95.504						
18	.212	.784	96.288						
19	.196	.725	97.013						
20	.168	.623	97.636						
21	.151	.559	98.195						
22	.146	.540	98.735						
23	.109	.403	99.138						
24	.085	.316	99.454						
25	.064	.237	99.691						
26	.045	.165	99.856						
27	.039	.144	100.000						

Extraction Method: Principal Component Analysis.

Table 8:Rotated component matrix[a]

		Component				
		1	2	3	4	5
V1-	I operate our joint a/c frequently	.828				
V3-	I continuously track the transactions taking place in our joint a/c	.903				
V4-	I am concerned whenever any amount is withdrawn from our joint a/c	.824				
V5-	I am aware about the position of our joint a/c	.853				
V7-	We mutually take decision regarding our joint a/c such as creation of FD,RD,SIP etc.	.563				
V8-I	operate our joint a/c only in absence of my partner	-.570				
V9-	I have more control over our joint a/c	.597				
V11-	I am aware whenever any amount is deposited into our joint a/c	.830				
V12-	My mobile no. is registered for our joint a/c alerts	.811				
V13-	I am continuously in touch with our joint a/c summary details and statement	.904				
V14-	I have access to plastic money related to our joint a/c	.513				
V15-	I am alert about loans taken on the name of our joint a/c	.725				
V21-	I am well informed about the charges that are debited for various services in our joint a/c	.816 .873				
V22-	I know the interest rates at which interest is credited in our joint a/c					
V27-	Being completely aware about the transactions taking place, I get to know things more better about banking	.575				
V2-I	Usually converse with my partner before operating our joint a/c	.795				
V6-	My partner operates our joint a/c frequently	.702				
V10-	I discuss with my partner before withdrawing cash from our joint a/c	.616				
V16-	My partner's cheques are deposited	.553				

	in our joint a/c frequently	
V20-	My partner withdraws/deposits into the a/c without keeping me informed	.589
V19-	Educational background has debarred me from participating in a/c related decisions	.752
V26-	If I do not contribute I rarely participate in decisions relating to our joint a/c	.810
V17-	Economic partnership with my partner has improved our personal relation	.742
V18-	I encourage my partner to participate more frequently in dealings of our A/c	.670
V23-	Marriage encouraged me for opening joint a/c	.772
V24-	Joint a/c ensures future security of non-earning spouse	.708
V25-	We have opened joint a/c considering that in the event of any mis-happening I can operate the a/c	.826

Extraction Method: Principal Component Analysis.Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

The Indian Journal of Commerce
Vol. 72, No. 2, April-June, 2019

Prospects of Digital Marketing in E-governance The Experience of Kerala

ASWATHY NATH N J AND GEORGEE K I

Abstract: *After the launch of National e-Governance Plan (NeGP) in 2006, state Governments as well as all the departments of the Government of India had started ventures to embrace e-Governance framework. Digital India initiative by the Indian Government in 2015 aims a nation connected to all citizens and digital marketing of Government services becomes significant. Thus, the Government administrations were showcased through, search engine optimization, mobile marketing, landing web page launch, Facebook Page launch, Facebook page promotions and Delivered Social Media Promotion Training Workshops. The fundamental point of digital marketing of Government services is to make aware the citizen and spread the publicity about e-services. The present study aims to analyse the awareness level of the citizens about e-Governance services as there is a wide launch of digital marketing of e-services in India.*

Key words: Digital marketing, E-Governance, Digital India, Awareness level, etc.

Introduction

Digital Marketing is any form of marketing products or services which involves electronic devices. It can be both online and offline. Search Engine Optimization, Search Engine Marketing or Pay per Click Advertising, Social Media Marketing, Content Marketing, Mobile Marketing, Web Analytics, Marketing Automation, and Content Writing and Rate Optimization are the popular and most-demanded areas in digital marketing. According to Institute of Direct Marketing "the use of internet and related digital information and communication technologies to achieve marketing objectives."

According to CAM Foundation – "Digital Marketing is a broad discipline, bringing together all forms of marketing that operates through electronic devices – online, on mobile, on-screen. Over the years, digital marketing has developed

Aswathy Nath N J is Research Scholar, Department of Commerce, Mar Ivanios College, University of Kerala, Trivandrum and Dr. Georgee K I is Principal, Mar Ivanios College, University of Kerala, Trivandrum.

enormously, and it continues to do so."The major reason for rise in digital marketing in India is the increase in internet penetration in the country. It has led to a substantial growth of other digital industries such as e- commerce, digital advertising and so on. Latest trends in digital marketing in India in web usage, mobile and search, social networking, shopping and online video are shaping the Indian digital marketplace and what it holds for the years to come.

Digital India

Digital India was initiated by the Government of India in 2015 with an aim to ensure the government services made available to the citizens electronically. The objective is to make every Indian digitally empowered and all information is digitally available. It aims to make a cent percent electronic governance (e-Governance) system in India. E-governance is the application of ICT for achieving good governance by providing, cost effective, efficient and transparent public services to the citizen. It uses the electronic applications to make interaction between government and citizens, government and business and internal government operation to simplify and improve democratic, government and business aspects of the governance.

The Digital India programme is centered on three key vision areas:

- **Digital infrastructure as a core utility to every citizen** includes, availability of high speed internet as for delivery of services to citizens, easy access to common service centre, safe and secure cyber space and sharable private space on a public cloud**.**
- **Government and services on demand** comprises of availability of services in real time both from online and mobile platforms, all citizen entitlements to be convenient and made available on the cloud, digitally transformed services for the better doing business and converting financial transactions to electronic and cashless.
- **Digital empowerment of citizens** contains universal digital literacy or e-literacy, universally accessible digital resources, availability of digital resources services in all Indian languages and collective platforms for participative governance.

The major two initiatives of Digital India campaign which aims to enable prompt connectivity between the government bodies are:

- My Gov Website
- Vikaspedia Website

My Gov Website empowered the citizen to get together, discuss and rectify the issues prevailing in the society. It is a platform where the citizens join hands to act, report, manage and rectify the issues existing in their own cites. It brought power to the hands of the masses. The actions reported and taken are directly dealt with by the Prime Ministers' office. This initiative enabled the central government to get to know the issues at the grass root level.

Vikaspedia is a collection of all information related queries. This portal is developed to cater to the daily questions of every citizen. It covers extensively the areas of Agriculture, Health, Education, Social Welfare, Energy and E-Governance.

Effectiveness of Digital Marketing in Governance System

As Digital India paves a wider means to the development of administrative system and new e-service delivery in the country, it is necessary to make aware the citizens about the system. Digital marketing plays an important role in the marketing of new e-Governance system among citizens. Along with giving awareness and publicity through news papers, televisions and radios, the Government aims to reach the same through digital ways, most commonly through Social Medias and Web Pages.

The internet usage among the citizen increases significantly year by year and it enhances the scope for digital marketing and digital governance. Figure 1 depicts the growth in the usage of internet by the individuals. The figure reveals that, the world is in the path of digital divide and the public urge to get Government services on their figure tips. In this regard Digital marketing is very significant in the digitalization of services.

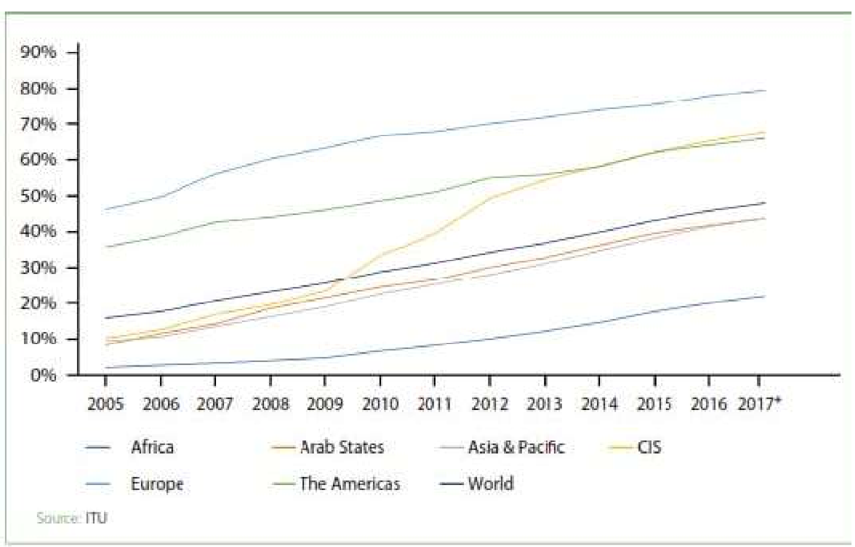


Figure 1 : Individual usage of Internet
Source: UN e-Government survey 2018

Objective of the study

The main objective of this paper is to analyse the awareness level of the citizens regarding the various aspects of e-Governance services provided by the Government**.**

Hypothesis

H_0: The citizens have significantly high awareness about the various aspects of e-Governance services.

Methodology

The study is descriptive and analytical in nature. Both primary data and secondary data were collected. Secondary data was collected from different journals, books, periodicals and reports. For the purpose of collecting Primary data, three districts from the Kerala state were randomly selected. Two Grama Panchayats wards were randomly selected from each district. Thus the total wards selected for the study was six. From the selected wards the respondents were randomly selected from the list of occupied households. Total number of occupied household in Kerala was considered as the population for the study. Total sample size for the study is calculated with the help of Kukeran formula and the sample size is confined to 385.

$$n = \frac{\dfrac{1.96^2 \times 0.5 \times 0.5}{0.05^2}}{1 + \dfrac{1}{10028709}\left(\dfrac{1.96^2 \times 0.5 \times 0.5}{0.05^2} - 1\right)}$$

n = 385

Analysis and Discussions

Awareness level of the citizens on e-Governance were studied by considering eight variables namely, e-services provided by the Government, ways to get e-services, services provided through Common Service Centres, submission of online applications, registration of complaints and suggestions, Digital India initiatives and Government websites for getting services.

The elements of awareness of the citizens towards e-Governance were studied on three point scale namely fully aware (3), partially aware (2) and not aware (1). To identify the intensity of the frequency mean value for each variables were calculated. It is shown in the Table 1.

After the implementation of Digital India initiative all the Government departments in Kerala are computerized and providing Government to Citizens services (G2C services) online. The result reveals that the citizens were aware about the e-services provided by the Government (mean value 2.25). Most of the public departments are using Common Service Centers (CSCs) for proving services to the public. It is understood from the results that the citizens were aware about the different ways to get e-services as the mean value 2.24.

In Kerala, Akshaya and Freinds are the two main CSCs providing e-services on behalf of the Government. The citizens can apply for different services of various departments through these CSCs. Instead of approaching any CSC, the public can also apply through their mobile applications or through the websites of the concerned department. The opinion of the citizens' shows that they were aware about submission of online applications as mean score is found to be 2.02.

Table 1: Level of awareness of citizens on e-Governance with mean score and test of significance

Dimensions of Awareness		Not aware	Partially aware	Fully aware	Mean	SD	t	Sig.
E-services provided by the Government	N	51	186	148	2.25	0.67	7.332	0.000
	percent	(13.25)	(48.31)	(38.44)				
	percent	(9.35)	(75.58)	(15.06)				
Ways to get e-services	N	32	297	56	2.06	0.48	2.577	0.010
	percent	(8.31)	(77.14)	(14.55)				
Services provided through Common Service Centres	N	14	264	107	2.24	0.51	9.357	0.000
	percent	(3.64)	(68.57)	(27.79)				
Submission of online applications	N	122	133	130	2.02	0.81	0.503	0.615
	percent	(31.69)	(34.55)	(33.77)				
Registration of complaints and suggestions	N	180	145	60	1.69	0.73	-8.420	0.000
	percent	(46.75)	(37.66)	(15.58)				
Digital India Initiatives	N	159	82	144	1.96	0.89	-0.861	0.390
	percent	(41.30)	(21.30)	(37.40)				
Government websites for getting e-services	N	128	187	70	1.85	0.70	-4.210	0.000
	percent	(33.25)	(48.57)	(18.18)				
	percent	(3.12)	(67.79)	(29.09)				

Source: *Field Survey*

The result also discusses that the citizens were partially aware about the digital India initiatives as the mean value is found to be 1.96. The citizens can submit some application by themselves without approaching any public offices or CSCs as said earlier. There is software named Sevana by Information Kerala Mission (for the services provided by LSGDs) which provides submission of online application by the citizens themselves and also there were token system in the registration offices for the registration of properties. The result reveals that the citizens were partially aware about the websites of different public departments. It is supported by the mean score is 1.85. As the mean value is below the response scale 2.00 it can be said that the awareness level of the citizens is low.

Even though there were so many complaints about the employees, infrastructure, etc. in the Government offices, most of the citizens will not take initiative for registering any complaints or give suggestions. As a result of e-Governance the public can make suggestions and register complaints through online. But a highest number of citizens were not aware about the same as the mean score is found to be 1.69.

One sample t test is used to assess whether the mean is significantly deviated from the mean of the response scale namely 2. As the significant level of all the frequencies was less than 0.05 except submission of online application and check the status of the application, it can be said that citizens were aware about only some elements of e-Governance.

Variation in the Level of Awareness

In order to find out the variation in the level of awareness about e-Governance among different categories of citizens One way Anova was conducted. Table 2 presents the mean score of awareness by characteristics of citizens with test of significance.

The result of Anova indicates that the level of awareness varies significantly with respect to occupation and educational qualification of the citizens. Scheffe test were conducted to identify the category which had least awareness. As per Scheffe test citizens in agricultural sector have the lowest awareness about the factors of e-Governance.

The scope for citizens in the agricultural sector is 1.51 which is significantly lower than the mean of the response scale, indicating that they are having very low awareness about the factors of e-Governance. It is also revealed that among different occupational categories citizens in the private sector have the highest awareness (2.25) followed by citizens in the Government sector (2.11) and the citizens having no occupation (2.07).

The mean value for the citizens who had education of SSLC was 1.41 which is significantly lower than the mean value of the response scale, below SSLC (1.58) and pre degree/plus two (1.80). The table also discloses that among different educational categories, the citizens who possess graduation and technical education have the highest awareness as the mean value is above 2.00 (2.26). From the results it can be said that, the mean awareness level is significantly lower among the beneficiaries in agricultural sector as well as the beneficiaries having education in pre degree/ plus two SSLC and below SSLC. It is evident that there were some of the citizens have significantly low awareness about various aspects of e-Governance.

Table 2: Mean opinion score of awareness by characteristics of citizens with test of significance

Characteristics		Statistics		One-sample t-test for mean with test value 2.00		Anova	
		Mean	SD	T	Sig.	F	Sig.
Gender	Male	2.06	0.46	1.962	0.051	0.095	0.759
	Female	2.04	0.41	1.163	0.247		
Area of residence	Rural	2.01	0.47	0.326	0.745	3.643	0.057
	Urban	2.10	0.40	3.261	0.001		
Region	South	2.00	0.40	0.004	0.997	1.342	0.263
	Central	2.07	0.45	1.780	0.078		
	North	2.08	0.46	2.030	0.044		
Occupation	Agriculture	1.511	0.17	21.293	0.000	47.594	0.000
	Private sector	2.253	0.51	5.091	0.000		
	Government sector	2.1123	0.33	3.243	0.002		
	No occupation	2.072	0.33	2.270	0.025		
Educational qualification	below SSLC	1.5812	0.06	-30.004	0.000	54.197	0.000
	SSLC	1.411	0.17	-20.834	0.000		
	Pre degree/plus two	1.802	0.30	-5.592	0.000		
	Graduation	2.263	0.41	6.327	0.000		
	Post-graduation	2.203	0.35	6.564	0.000		
	Technical education	2.263	0.28	4.923	0.000		

'Values given as subscript represent subsets as per Scheffe test'

Testing of hypothesis

From the analysis it can be concluded that all citizens are not having high knowledge about the factors of e-Governance, there are citizens with significantly low awareness. Hence the result rejects the stated hypothesis that the citizens have significantly high awareness about the various aspects of e-Governance services.

Conclusion

Digital marketing is a very striking way for marketing e-Governance services to the citizens and a major part of the citizens make advantage on that. But there were some category of people who are not aware about the digital India initiative and the e-services provided by the Government. It is mainly because of the ill e-literacy, so it needs to conduct awareness programmes through other channels which reach at the grassroots level. Only then e-Governance system will be thriving to the nation and attain good governance system in administration and there by achieve inclusive development.

REFERENCES

Arushi Mathur, (2016). Usefulness of digital marketing to the Government of India. *International Journal of Computer Science and Network,* 5(5), 721-724

Rajiv Kaushik, (2016). Digital marketing in Indian context. *International Journal of Computational Engineering & Management,* 19(2), 12-17

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 Flat-141, Azad Hind Society, Sector-9 Dwarka, Delhi-110077
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)

72nd 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, Bhubaneshwar, 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