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In this special issue selected papers have been published from the Conference titled "Resilience for Sustainability: Revisiting Management Practices and Strategizing for the Future" organized by the NorthCap University on March 26, 2021.

All the papers published in the journal have undergone a rigorous peer-review process.

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2, Education and Health Sector, Scheme 54, Near Bombay Hospital, Indore-452 010
Madhya Pradesh INDIA

Phone : +91-731-4012222, 2557510, 2571504, **Fax :** +91-731-4012256

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AN EMPIRICAL STUDY OF COMPREHENSIVE MODEL FOR INDIAN INSURANCE SECTOR

Jatin Kumar Lamba*, Nimit Gupta**

Insurance has become an important component of investment decisions. The only purpose of insurance remains to provide security against contingency and hence peace of mind. The business of insurance works on the Law of Large Numbers which is the most important statistical doctrine. The base of insurance is to calculate the expected losses in the future with maximum accuracy. In India, the insurance sector has shifted continuously over the last few years due to expanded private business penetration. Insurance has since been a critical field in global terms because of rising threats and dangers, all due to environmental imbalances and human activities. In India, there is a total of 24 life insurance companies including one public sector i.e. LIC, and 33 non-life insurance companies. India has witnessed the growth of the life insurance sector in two phases, one from 2001 to 2010 and the other from 2010 to onwards. Various research studies have found that financial institutions' sustainability is influenced by internal and external influences. This study used only internal determinants of life insurance's profitability includes size, age and volume of capital. The present research will seek to develop a model of a comparative study of the financial performance of public life insurance company (LIC) and other selected private life insurance companies in India based on profit, revenue and capital gains. The market share of the following five top private life insurance companies has been taken for the comparison of the financial performance of public life insurance company (LIC). The results show that there is no correlation between the company's profitability and age, and the connections between profitability and size are significantly positive. The results also show that capital volume was substantially connected with profitability and was optimistic.

Keywords: Insurance Sector, Public Sector Insurer, LIC, IRDA, Profitability of Insurer, Comprehensive Model.

INTRODUCTION

Security of individuals and group of individuals and it tends to permeate in the whole modern era. Insurance is not only a source of peace of mind since it provides security against uncertainty but also acts as a good means of investment for individuals and the business community. Insurance has become an important component of investment decisions. The only purpose of insurance remains to provide security against contingency and hence peace of mind. The business of insurance works on the Law of Large Numbers which is the most important statistical doctrine. The base of insurance is to calculate the expected losses in the future with maximum accuracy. If the

industry can do so, the premium can be calculated with precision leading to fewer losses in a given period. As an industrial insurance firm, financial investors consider it a moderate, stable, developing portion. This visibility isn't as high as in the 1970s and 1980s. But, when compared with other financial categories, it is still widely seen.

In India, the insurance sector has shifted continuously over the last few years due to expanded private business penetration. Insurance has since been a critical field in global terms because of rising threats and dangers, all due to environmental imbalances and human activities. It is important to analyze some of the specific features of insurance operations as part of an

*Ph. D. Scholar, SHRI JYT University, Rajasthan.

**Professor, School of Management and Liberal Studies, NorthCap University, Gurugram.

assessment of the insurance mechanism and how it operates. Such specialty elements that do not exist in most entities mandated the specific design of the insurance policy.

In India, there is a total of 24 life insurance companies including one public sector i.e. LIC, and 33 non-life insurance companies. India has witnessed the growth of the life insurance sector in two phases, one from 2001 to 2010 and the other from 2010 to onwards. During 2001-2010, high growth was achieved by an approximately 3.1 percent Compound Annual Rate of growth (CAGR). Because of the implementation of Unit Linked Insurance Policies (ULIP), most Indian life insurance firms were in good condition. The annual compound rate of growth from 2010 onwards stood at about 2 percent. With nearly 360 million policies India's life insurance market is one of the world's largest insurance markets. India is the world's fifteenth largest premium-volume insurance market. In the financial year 2015-2016, new primary sales of INR 1.38 billion (\$20.54 billion) were reported in the life insurance sector, a growth rate of 22.5 percent. Life-assurance premium revenue rose 14.04 percent to INR 4.18 trillion (US\$ 64.92* billion) in the financial year 2017. In August 2017, there was a 24 percent increase in the average annual premium for the life insurance sector (* Exchange rate: INR 1 = USD 0.015 as on 4 January 2018).

Globally, India's share in the global insurance market was 1.69 percent during 2019 which was 1.58 percent in 2018. However, during 2019, the total insurance premium in India increased by 6.9 percent (inflation-adjusted) whereas global total insurance premium increased by 2.9 percent (inflation-adjusted) (Swiss Re, 2020). Globally, the share of the life insurance business in total premium was 46.34 percent. However, the share of life insurance business for India was very high at 74.94 percent while the share of non-life insurance business was at 25.06 percent. In the life insurance business, India is ranked 10th among the 88 countries, for which data

is published by Swiss Re. India's share in the global life insurance market was 2.73 percent during 2019. The measure of insurance penetration and density reflects the level of development of the insurance sector in a country. While insurance penetration is measured as the percentage of insurance premium to GDP, insurance density is calculated as the ratio of premium to population (per capita premium).

During the first decade of insurance sector liberalization, the sector has reported a consistent increase in insurance penetration from 2.71 percent in 2001 to 5.20 percent in 2009. Since then the level of penetration was declining and dropped to a level of 3.30 in 2014. However, it started increasing since 2015 and showing an increasing trend onwards viz. in 2015 (3.44 percent) in 2017 (3.69) and in 2019 it was 3.76. The level of insurance density reached the maximum of USD 64.4 in the year 2010 from the level of USD 11.5 in 2001. However, from the year 2011 to 2016 it was hovering between 50 and 60 but in the year 2017, it has grown up to USD 73 (USD 59.7 in 2016). The insurance density of the life insurance sector had gone up from USD 9.1 in 2001 to reach the peak at USD 55.7 in 2010. Since then it has exhibited a declining trend up to the year 2013. During the year 2017, the level of life insurance density was USD 55.00 (USD 46.50 in 2016). The life insurance penetration had gone up from 2.15 percent in 2001 to 4.60 percent in 2009. Since then, it has exhibited a declining trend up to the year 2014. There was a slight increase in 2015 reaching 2.72 percent, which remained the same in 2016 and increased to 2.82 in the year 2019. The penetration of the non-life insurance sector in the country has gone up from 0.56 in 2001 to 0.93 in 2017 (0.77 in 2016). Its density has gone up from USD 2.4 in 2001 to USD 19.0 in 2019 (Swiss Re, 2020).

REVIEW OF LITERATURE

The review of literature helped to find out the gap among the previous studies on the problem in the hand of this research. The

literary analysis also helped to detect the difference between the different studies carried out in the Global and Indian scenario on the comparative outcomes of public and private actors in the insurance sector, especially in the life insurance industry. According to Bodla et al. (2003), resilient and the well-regulated insurance industry will contribute significantly to economic development and the productive distribution of capital through risk transfer and savings mobilization. Furthermore, it will increase the efficiency of the financial system by reducing transaction costs, generating cash, and promoting financial savings.

As per Nguyen (2006), sustainability is one of the basic goals of financial management, since one goal of financial management is the maximization of the valuation of the resources of the holders. The research examined the many methods of calculating profitability, which are ROIC, Equity Return (RTB) and Asset Return (ROA). Report of Gulhane (2013) aims to determine and evaluate the performance of insurance firms in both the public and private sectors. The outcome shows that LIC in India controls the life insurance market. The increase in the number of public and private life insurance plans is important. Gour and Gupta's (2012) report looked at the solvency level of Indian Life Insurance companies for three years between 2009-10 and 2011-12. The analysis aimed to examine whether there were identical or substantial variations in the success of different firms. The numerous insurance firms were classified by the solvency ratio, which showed that ICICI was the best insurer in the market, with SBI, HDFC and LIC being pursued. The research also demonstrated that the solvability of life insurance undertakings relies on returns. Because of the immateriality of the outputs and the lack of clarity in resource allocations judgment, has been observed that financial sector success variables frequently are difficult to distinguish (Berger et al., 1997).

According to Chen and Wong (2004) resumed firm considerations that have a particular impact on the rentability of properties and liabilities of general insurers and life and health insurance and offered useful advice for the soundness of life/health insurance providers, which vary on the company, investment, exposure and liability terms from the property/liability insurers. Life insurers are operating as financial intermediaries under this paper, whereas general insurers operate as risk accepting individuals. Arif (2015) stressed heavily on the impact of various variables on Indian life insurance industry trends and patterns. In the insurance density, investment amounts, overall premiums, the number of new policies released, number of offices opened etc., the author has examined a multifold growth in this field. The author argues that life insurance companies need to adjust their policies and deliver a tailor-made product to better serve the untapped market.

Cudiamat and Siy (2017) emphasized that sustainability is important to emerge economies in the life insurance industry. The paper looked at the effect on the RDA (profitability measurement) of life insurance companies of the selected company level, level of the industry and macro-level variables. The results show that most of the factors at the firm level influence ROA while there is little impact on the sector and macroeconomic factors. The research conducted by Mulchandani et al. (2018) aimed at exploring and assessing the effectiveness of internal profitability variables of Indian Life Insurance. To analyze the influence of independents on the dependent variable (in the Indian Life insurance sector), researchers used the Correlation and Multiple Regression Analysis. Equality return was considered to be a dependent variable and the independent variables were considered age, wealth, international holdings, rate of rising, reinsurance and the yield on investments. The findings revealed that age and wealth have a big effect and that

the return on equity has a large impact on international holdings, rate of inflation, reinsurance and the yield on assets.

Chandrapal (2019) examined the impact of liberalization on the Indian insurance industry by examining it in terms of its efficiency characterized by functional performance. Data of 552 respondents from Indian life insurers was used for the empirical examination. Multivariate Analysis of Variance (MANOVA) was conducted to test the hypotheses that the linear combinations of the impact of liberalization on the Indian life insurance industry characterized by the marketing mix, service quality, and insurance awareness might differentiate between groups characterized by gender, place of residence, types of relationship with Life Insurance Corporation (LIC), types of employee positions in LIC and types of relationship with private players. The results reveal a positive impact of liberalization on the Indian life insurance industry. The study conducted by Ranjan et al. (2020) revealed how integrated marketing communications impact the buying behavior of consumers in the insurance sector. As per researchers the

Insurance sector in India has become competitive due to the entry of several national and international players. Due to the increased competition, the role of marketing communication has increased and now in all the marketing strategies of the companies, it plays an important role in impacting consumer behavior. The paper is an attempt to elucidate some concepts regarding the impact of marketing communications on the choices and decision-making process of the consumers.

COMPREHENSIVE MODEL

Various research studies have found that financial institutions' sustainability is influenced by internal and external influences. This study used only internal determinants of life insurance's profitability includes size, age and volume of capital. The study identified how these variables determine the profitability concerning profit, revenue and capital gains of a life insurance company in India. Keeping the above aspects in consideration the authors have proposed the following conceptual framework.

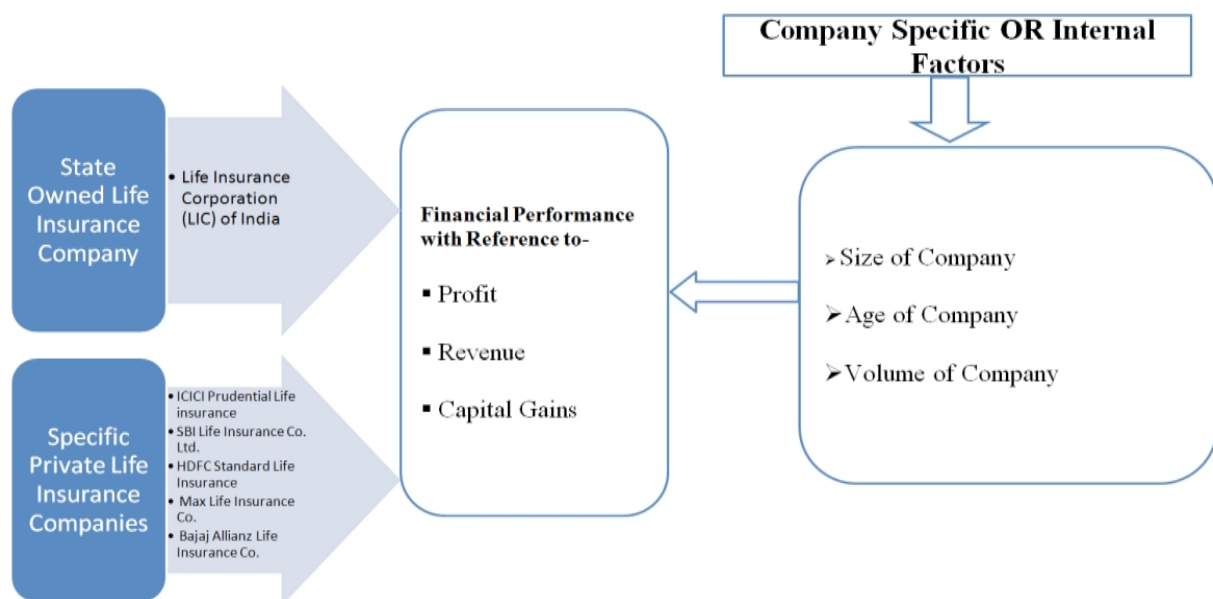


Figure 1: Conceptual Framework

Relationship between Viability and Determinants of the Insurance Business

Source: Authors Compilation

OBJECTIVES

The present research will seek to develop a model of a comparative study of the financial performance of public life insurance company (LIC) and other selected private life insurance companies in India based on profit, revenue and capital gains. Based on the market share the following five top private life insurance companies have been taken for the comparison of the financial performance of public life insurance company (LIC):

- ICICI Prudential Life Insurance
- SBI Life Insurance Co. Ltd.
- HDFC Standard Life Insurance
- Max Life Insurance Co.
- Bajaj Allianz Life Insurance Co.

Therefore, the objectives of the present study are as follows:

- To determine the impact of firm-specific factors size, age, the volume of the capital of the company on financial performance regarding profit, revenue and capital gains of the insurance company.
- To compare the financial performance of LIC with other selected private life insurance companies in India.

RESEARCH METHODOLOGY

The Study: The study is exploratory in nature and developed a model for comparative analysis of selected six insurance companies in India.

The Sample: Based on the overall market share of all private life insurance players in the Indian insurance industry, the LIC and five selected private sector firms are used as a sample in the study. Age, size and amount of company capital are the variables evaluated in this research.

Tools for Data Collection: For the period 2007-08 to 2019-2020, the analysis used secondary data and the survey of the six life insurance companies in India.

Tools for Data Analysis: Comparison of Correlation of different components of selected life insurance companies is conducted in the study.

FINDINGS

Table 1 shows the market shares of LIC and other selected private life insurance companies in India from 2007-08 to 2019-20. Market share is presented in terms of total premium income. LIC is greater than any other selected 5 private players. It is due to customer's trust in public sector companies. Table 2 to Table 7 are showing the company-wise financial performance of all six companies in terms of Total Revenue (TR), Profit After Tax (PAT) and Capital Gain during the period 2007-08 to 2019-20. It is very much clear from the analysis of Tables 2 to 7 that the Total Revenue of LIC is greater than private competitors during the reference period. While there is not a big gap between PAT of LIC and other private players although it has been also more or less remained greater in the case of LIC. On the other hand, the performance of private players in terms of Capital Gains remained better than LIC.

Table 8 is showing a comparison of mean values and standard deviations of the financial performance of six Indian life insurance companies. The analysis of the table shows that the mean of Total Revenue and PAT of LIC is greater than that of private companies while the gap between the mean of TR is more than that of PAT. On the other hand, the mean of capital gains of LIC is less than that of private players. Not only the mean but also the standard deviation of TR of LIC remained greater than that of private companies which means there remained a great variation or less consistency in the case

of TR of LIC over 13 years. The standard deviation of PAT of ICICI is highest among all six life insurance companies taken for study. As well as the standard deviation of capital gains of ICICI remained highest as compared to the other five competitors and least remained of LIC. Table 9 is showing the correlation between share (in percent) and premium of LIC and other five private life insurance companies and the result shows a perfect positive correlation (1) in the case of LIC and a highly positive correlation (0.921) in the case of private players. Karl Pearson's coefficient of correlation method was used to find the relation between different variables of government and private life insurance companies.

Table 10 has shown that Karl Pearson's coefficient of Total Revenue gained by Life Insurance Corporation of India was 1 which is a perfect positive correlation while other selected companies have less value of correlation coefficient. When capital gains of these different life insurance companies were calculated the results show that capital gains made by LIC of India were .591 which has a low positive correlation as compared to private companies. When Profit After Tax has been calculated the results show that Profit After Tax of LIC was .919 which has a high positive correlation.

CONCLUSION

This study aimed to assess the factors affecting the profitability, profits and capital gains of Indian insurance companies. For the period 2007-08 to 2019-2020, the analysis used secondary data and the survey of the six life insurance companies in India. Age, size and amount of company capital are the variables evaluated in this research. The results of this study will help Indian life insurance firms to better understand their financing efficiency. The results show that there is no correlation between the company's profitability and age, and the connections between profitability and size

are significantly positive. The results also show that capital volume was substantially connected with profitability and was optimistic.

The current research has reviewed several types of research conducted on determinants of financial performance of a life insurance company in the Global and Indian context. It was found that none of the researches has elucidated the effect of firm-specific factors of a life insurance company on financial performance concerning its capital gains. In the present study, the financial performance of life insurance companies has been examined based on the Capital Gains of these companies along with Total Revenue and Profit after Tax. Many studies have conducted the comparison of private and public life insurance companies in India but the comparison of the only public life insurance company i.e., LIC has not been made with any specific private players. To fill this research gap it is required to find out the differences in the financial performance of LIC and selected private life insurance companies. Hence, in the present study the comparison of one and only one public sector life insurance Co. i.e., LIC has been made with selected top five (based on their market share) private life insurance companies in India. Undoubtedly LIC consistently performing well but its market share has decreased after the privatization of the insurance sector. Although it is the only public sector company holding more share than the total of all other 23 private players in the market. The present research also showed the same result that the only state-owned life insurance company i.e., LIC is leading the selected five private players in the Indian life insurance industry.

SCOPE OF FUTURE RESEARCH

The present research is limited to the life insurance companies' financial performance only and not covering the non-life or general insurance segment and in the life insurance

sector only selected top five private players have been taken as a sample. The present study is confined to the period of 13 years i.e., 2007-08 to 2019-20. Therefore, there is the future scope for research in the following areas:

- Other than age, size and volume of capital more internal factors of a company affecting its financial performance can also be analyzed.
- Financial performance can also be evaluated on other factors than profit, revenue and capital gain of a company.
- There is a vast scope of research in non-life or general insurance companies in India as there are many different segments of the non-life industry with more players in both public and private sectors.

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ANNEXURES

Table 1: Year Wise Market Shares of LIC and Other Selected Private Life Insurance Companies

(Rs. Crore)						
	PUBLIC SECTOR LIFE INSURANCE CO.	SELECTED PRIVATE LIFE INSURANCE COMPANIES				
YEAR	LIC	ICICI Prudential Life Insurance	SBI Life Insurance Co. Ltd.	HDFC Standard Life Insurance	Max Life Insurance Co.	Bajaj Alliance Insurance Co.
2007-08	149789.99 (74.39)	13561.06 (6.74)	5622.14 (2.79)	4858.56 (2.41)	2714.60 (1.35)	9725.71 (4.83)
2008-09	157288.04 (70.92)	15356.22 (6.69)	7212.10 (3.25)	5564.69 (2.51)	3857.26 (1.74)	10624.52 (4.79)
2009-10	186077.31 (70.10)	16531.88 (6.23)	10104.03 (3.81)	7005.10 (2.64)	4860.54 (1.83)	14419.71 (5.43)
2010-11	203473.40 (69.77)	17880.63 (6.13)	12911.64 (4.43)	9004.17 (3.09)	5812.63 (1.99)	9609.65 (3.30)
2011-12	202889.28 (70.68)	14021.58 (4.88)	13133.74 (4.58)	10202.40 (3.55)	6390.53 (2.23)	7483.80 (2.61)
2012-13	208803.58 (72.70)	13538.24 (4.71)	10450.03 (3.64)	11322.68 (3.94)	6638.70 (2.31)	6892.70 (2.40)
2013-14	236942.30 (75.39)	12428.65 (3.95)	10738.60 (3.42)	12062.90 (3.84)	7278.54 (2.32)	5843.14 (1.86)
2014-15	239667.65 (73.05)	15306.62 (4.67)	12867.11 (3.92)	14829.90 (4.52)	8171.62 (2.49)	6017.30 (1.83)
2015-16	266444.21 (72.61)	19164.39 (5.22)	15825.36 (4.31)	16312.98 (4.45)	9216.16 (2.51)	5897.31 (1.61)
2016-17	300487.36 (71.81)	22354.00 (5.34)	21015.13 (5.02)	19445.49 (4.65)	10780.40 (2.58)	6183.32 (1.48)
2017-18	318223.20 (69.36)	27068.77 (5.90)	25354.19 (5.53)	23564.41 (5.14)	12500.89 (2.72)	7578.37 (1.65)
2018-19	337505.07 (66.42)	30929.77 (6.09)	32989.42 (6.49)	29186.02 (5.74)	14575.23 (2.87)	8857.16 (1.74)
2019-20	379389.60 (66.22)	33430.70 (5.84)	40634.73 (7.09)	32706.89 (5.71)	16183.65 (2.82)	9752.53 (1.70)
NOTE: Figures in brackets indicate the market share of life insurance companies (in %) on the basis of total premium income.						
SOURCE: ANNUAL REPORTS- IRDA						

PUBLIC SECTOR LIFE INSURANCE CO. LIC			
	TOTAL REVENUE	PROFIT AFTER TAX	CAPIAL GAIN
YEAR			
2007-08	206362.98	844.63	-9.23
2008-09	200280.65	957.35	-9.23
2009-10	298721.55	1060.72	56.09
2010-11	299272.63	1171.81	53.2
2011-12	287315.38	1313.34	-8.98
2012-13	326341.88	1437.59	-35.32
2013-14	380042.44	1656.68	-9.23
2014-15	407546.36	1823.78	-9.23
2015-16	424186.68	2517.85	-8.15
2016-17	492626.61	2231.74	1245.61
2017-18	523611.11	2446.41	277.74
2018-19	560784.39	2666.37	954.34
2019-20	615882.94	2712.71	-11.32

Table 2: Year Wise TR, PAT and CG of LIC

Source: Annual Reports of IRDA

ICICI Prudential Life Insurance			
	TOTAL REVENUE	PROFIT AFTER TAX	CAPIAL GAIN
YEAR			
2007-08	18069.42	-1395.06	50.52
2008-09	10121.58	-779.71	-1714.65
2009-10	34588.64	257.97	3297.13
2010-11	24194.69	807.62	6425.05
2011-12	14149.78	1384.17	1740.45
2012-13	20162.99	1495.94	1865.67
2013-14	21611.29	1566.66	2815.33
2014-15	33944.27	1634.29	7436.64
2015-16	20227.95	1650.46	4020.94
2016-17	37193.01	1682.23	6152.57
2017-18	38212.11	1620.21	3646.47
2018-19	41400.26	1140.65	3286.54
2019-20	21726.26	1068.75	2631.83

Table 3: Year Wise TR, PAT and CG of ICICI Prudential

Source: Annual Reports of IRDA

SBI Life Insurance Co. Ltd.			
YEAR	TOTAL REVENUE	PROFIT AFTER TAX	CAPIAL GAIN
2007-08	6216.72	34.38	414.61
2008-09	5669.96	-26.31	-1595.92
2009-10	16054.38	276.46	2125.64
2010-11	15927.52	366.34	1806.71
2011-12	13864.84	555.82	141.14
2012-13	15044.01	622.17	1128.81
2013-14	17366.2	740.13	2331.51
2014-15	23189.79	820.04	4828.03
2015-16	19119.13	861.03	1820.22
2016-17	30277.51	954.65	2478.89
2017-18	33760.53	1150.39	2885.68
2018-19	44261.15	1326.81	1505.14
2019-20	43842.84	1422.01	1013.96

Table 4: Year Wise TR, PAT and CG of SBILI

Source: Annual Reports of IRDA

Max Life Insurance Co.			
YEAR	TOTAL REVENUE	PROFIT AFTER TAX	CAPIAL GAIN
2007-08	3096.15	-156.93	86.36
2008-09	3973.24	-393.02	-291.76
2009-10	6849.59	-20.91	624.27
2010-11	6741.28	194.06	574.76
2011-12	6635.41	459.83	65.39
2012-13	7881.06	423.45	260.29
2013-14	9404.81	435.91	244.79
2014-15	12269.52	414.24	2081.8
2015-16	10445.35	439.11	496.74
2016-17	14910.09	659.93	954.44
2017-18	25002.02	-66.82	-10.25
2018-19	317.78	49.39	-6.27
2019-20	450.02	272.55	-0.02

Table 5: Year Wise TR, PAT and CG of MLI

Source: Annual Reports of IRDA

Bajaj Allianz Insurance Co.			
YEAR	TOTAL REVENUE	PROFIT AFTER TAX	CAPIAL GAIN
2007-08	10719.18	-213.89	744.83
2008-09	7663.22	-70.68	-1714.79
2009-10	21419.18	542.29	3134.91
2010-11	13527.91	1057.04	2840.01
2011-12	7405.81	1311.21	748.58
2012-13	9880.16	1285.64	2373.09
2013-14	10726.51	1024.59	1864.65
2014-15	13573.49	876.21	4452.76
2015-16	6665.36	878.97	1079.36
2016-17	11671.82	836.26	2081.61
2017-18	32862.66	417.64	41.11
2018-19	42605.57	501.86	41.76
2019-20	9631.02	449.59	1329.01

Table 6: Year Wise TR, PAT and CG of BAI

Source: Annual Reports of IRDA

HDFC Standard Life Insurance			
YEAR	TOTAL REVENUE	PROFIT AFTER TAX	CAPIAL GAIN
2007-08	5733.73	-243.51	229.22
2008-09	4445.68	-502.96	-343.84
2009-10	13064.68	-275.18	781.33
2010-11	11228.41	-99.01	1733.71
2011-12	10427.28	271.02	700.78
2012-13	13828.62	451.48	940.57
2013-14	17286.58	725.28	415.42
2014-15	27090.81	785.5	3215.36
2015-16	18066.47	818.41	2770.31
2016-17	30554.42	892.13	3504.05
2017-18	32234.07	1109.01	3659.53
2018-19	38435.51	1276.79	2334.92
2019-20	29261.42	1295.27	2506.18

Table 7: Year Wise TR, PAT and CG of HDFCSLI

Source: Annual Reports of IRDA

Note: * TOTAL REVENUE = Net Premium Income + Net Income from Investment + Other Income

* CAPITAL GAIN = Profit on Sale/Redemption of Investment

Companies	Mean	Std. Deviation	N
Total Revenue LIC	386382.7385	13001.9372	13
Profit After Tax LIC	1756.9985	675.93344	13
Capital Gain LIC	191.2531	413.91500	13
Total Revenue ICICI	25815.5576	9976.90882	13
Profit After Tax ICICI	933.3985	1003.60092	13
Capital Gain ICICI	3204.1915	2554.68749	13
Total Revenue SBI	21891.8908	7148.31619	13
Profit After Tax SBI	700.3015	449.88501	13
Capital Gain SBI	1606.4938	1959.05798	13
Total Revenue Max	8305.8708	5667.20529	13
Profit After Tax Max	208.5223	306.88829	13
Capital Gain Max	390.8108	612.51487	13
Total Revenue Bajaj	15257.8377	10479.69779	13
Profit After Tax Bajaj	684.3638	475.28029	13
Capital Gain Bajaj	1462.8377	1596.98535	13
Total Revenue HDFC	19358.2831	10791.98810	13
Profit After Tax HDFC	500.3254	610.40399	13
Capital Gain HDFC	1726.7338	1352.72189	13

Table 8: Comparison of Mean Values of Total Revenue of Selected Life Insurance Companies

Correlations			
		LIC	PrivateSector
LIC	Pearson Correlation	1	.921**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	19781671221.865	7079129392.730
	Covariance	2197963469.096	786569932.526
	N	13	13
Private Sector	Pearson Correlation	.921**	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	7079129392.730	2984947235.331
	Covariance	786569932.526	331660803.926
	N	13	13

Table 9: Correlation between Shares Percent and Premium of LIC and other Private Life Insurance Companies

Variables	Statistics	Values
Total Revenue LIC	Pearson Correlation	1
	Sig. (2-tailed)	
	N	13
Profit After Tax LIC	Pearson Correlation	.919**
	Sig. (2-tailed)	0
	N	13
Capital Gain LIC	Pearson Correlation	0.591
	Sig. (2-tailed)	0.072
	N	13
Total Revenue ICICI	Pearson Correlation	.662*
	Sig. (2-tailed)	0.037
	N	13
Profit After Tax ICICI	Pearson Correlation	.838**
	Sig. (2-tailed)	0.002
	N	13
Capital Gain ICICI	Pearson Correlation	.756*
	Sig. (2-tailed)	0.011
	N	13
Total Revenue SBI	Pearson Correlation	.957**
	Sig. (2-tailed)	0
	N	13
Profit After Tax SBI	Pearson Correlation	.953**
	Sig. (2-tailed)	0
	N	13
Capital Gain SBI	Pearson Correlation	.732*
	Sig. (2-tailed)	0.016
	N	13
Total Revenue Max	Pearson Correlation	.981**
	Sig. (2-tailed)	0
	N	13
Profit After Tax Max	Pearson Correlation	.856**
	Sig. (2-tailed)	0.002
	N	13
	Pearson	

Capital Gain Max	Pearson Correlation	.634*
	Sig. (2-tailed)	0.049
	N	13
Total Revenue Bajaj	Pearson Correlation	0.028
	Sig. (2-tailed)	0.939
	N	13
Profit After Tax Bajaj	Pearson Correlation	0.557
	Sig. (2-tailed)	0.094
	N	13
Capital Gain Bajaj	Pearson Correlation	0.523
	Sig. (2-tailed)	0.121
	N	13
Total Revenue HDFC	Pearson Correlation	.946**
	Sig. (2-tailed)	0
	N	13
Profit After Tax HDFC	Pearson Correlation	.914**
	Sig. (2-tailed)	0
	N	13
Capital Gain HDFC	Pearson Correlation	.858**
	Sig. (2-tailed)	0.001
	N	13

Table 10: Comparison of Correlation of Different Components of Selected Life Insurance Companies

CHANGING THE MINDSET OF NIGERIAN GRADUATES TO BE JOB CREATORS

Chikwelu Mbonu*, Ogbodo Okenwa CY**, Okeke M.I.***

The unemployment and underemployment situation of Nigerian graduates is becoming critical as the figures are on the increase. Thousands of graduates are turned out from tertiary institutions looking for paid jobs that are not available despite the training they have received in entrepreneurship education. There seems to be a lacuna in entrepreneurship education in Nigerian tertiary institutions as it concerns changing the mindset of the students to be job creators instead of job seekers. This paper is a descriptive one employing the qualitative method to present how entrepreneurial mindset and opportunity identification can be employed in changing the mindset of Nigerian tertiary institution students to be job creators. It is recommended that the curricular of entrepreneurship education in Nigerian tertiary institutions be revised to give a special focus on entrepreneurship mindset and opportunity identification. The teachers of entrepreneurship education need to be trained on the quality of their delivery.

Keywords: Mindset, Opportunity, Nigerian Graduates, Entrepreneurship Education.

INTRODUCTION

Every year, thousands of graduates are turned out from tens of Nigeria's higher education institutions (HEI). The Higher Education Institutions in Nigeria comprise the Universities, Polytechnics and Colleges of Education. The graduate job market in Nigeria is indeed a competitive one. The former Minister of Finance in Nigeria, Okonjo-Iweala (2014) stated that about 1.8 million graduates enter the job market. The truth of the matter is that paid employment is a scarce commodity; hence unemployment rate is high.

It is reported by the international labor organization that in Nigeria youth unemployment and underemployment is 43.3 percent (ILO 2015). The unemployment problem is not an issue in Nigeria only but a global challenge, especially in developing low-income economies where there is a need to integrate more than three billion young adults into the world economy by 2050. An economic initiative by enterprising

individuals is likely to be key in addressing the challenge of long-term productivity in developed rich countries (Acs et al., 2013).

Part of the reason that is given for graduate under-employment and unemployment is the mismatch between what the graduates are taught in schools and what is required in the job market (Akinyemi et al., 2012). There is an obvious need for a change in our higher education system towards the entrepreneurial university model. Current educational system somehow gives a student the impression that once you study hard and graduate, there is a job waiting for you out there. However, the students who graduate even with the best grades, could not find a job. To make the matter worse, they are told to start their own business, and they found out that throughout their undergraduate years they were not taught how to start their own business.

Nigerian tertiary institutions have done well in introducing entrepreneurship courses for undergraduate students. These programs

*Senior Lecturer, Accountancy Department, NnamdiAzikiwe University, Awka, Anambra State, Nigeria.

**Head-Accountancy Department, NnamdiAzikiwe University, Awka, Anambra State, Nigeria.

***Political Science Department, NnamdiAzikiwe University, Awka, Anambra State, Nigeria.

need to be improved and sustained so that the universities in Nigeria will contribute their quota in the shift towards an entrepreneurial economy. In the present realities of the job market, there is a need for Nigerian graduates to have a change of mindset towards entrepreneurial mindset to be a change agent in the society. An entrepreneurial economy is defined as an economy where economic performance is related to distributed innovation and the emergence and growth of innovative ventures (Kirchhoff, 1994; Audretsch and Thurik, 2000,2001). Acs (2012) articulated that, the engine that moves global capitalism forward is entrepreneurship and the fuel is opportunity. The entrepreneurial society entails recycling the energy of the society making prosperity and progress to be sustainable. It is the recognition that opportunities are available to the broad cross-section of society and that the entrepreneurial society represents an institutional and policy landscape that must be broad in its scope and intent. This institutional structure is a work in progress. It is a global project that must be monitored, measured and tracked. Today, the university is an integral part of the institutional infrastructure of the entrepreneurial society, where knowledge has replaced brawn (labour) in the managed economy as the most important input into production (Thurik, 2011).

REVIEW OF LITERATURE

Entrepreneurship

The term 'entrepreneur' has its origins in the French word *entreprendre*, which means 'taker' or 'go between'. It also means a person who takes risks to build an enterprise. Another simple meaning of this term is to go deep inside and ponder, take all sorts of risks and come out with clarity about an opportunity and translate it into reality. The concept of entrepreneurship has

evolved with a degree of complexity that has emerged over a period as follows:

- Earliest Period – Concept of a Merchant and Capitalist.
- Middle Ages – Concept of Cleric: One Oversees and Manages Projects.
- 17th Century – Project's Concept of Risk (Richard Cantillon).
- 18th Century – The Concept of Capital Provider.
- 19th and 20th Century – The Concept of Risk and Profit and Innovator.
- 21st Century – The Concept of Creative Destruction, Disruptive Technology, Mindset and Entrepreneurial Leadership.

There are many ways of defining entrepreneurship as has been described by writers dealing with the subject. There is no single definition of entrepreneurship. However, certain definitions of entrepreneurship cover a wider gamut and involve greater depth to understand the term. The concept of entrepreneurship has been denoted by different authors as follows:

- Richard Cantillon – Entrepreneur: Non-insurable Risk Bearer.
- David McClelland – Person with a High Need for Achievement.
- Kilby – Imitates Technology Developed by Others.
- Albert Shaperohas – Takes Initiative, Accept Risk and has an Internal Locus of Control.
- Kirzner – Alertness to New Opportunities.

Drucker (1985) has defined entrepreneurship as a systematic innovation, which consists in the purposeful and organized search for changes and systematic analysis of the

opportunities such changes might offer for economic and social innovation. According to Professor Howard Stevenson, the godfather of entrepreneurship studies at HBS, entrepreneurship is the pursuit of opportunity beyond resources controlled.

The Babson definition of entrepreneurship is a mindset that is opportunity obsessed, holistic in approach and leadership balanced. Babson's definition focuses on cultivating the mindset that prepares students with broad-based entrepreneurial skills relevant to any organization. Fundamentally, three key components around which entrepreneurship revolves are opportunity identification, value creation and resource organization.

Entrepreneurship: A Key to Development

In the 21st century, dominated by the knowledge economy, human capital is playing the most crucial role in growth and development. Thus, over the years, importance of the primary factors of production has become less important than the primary factors of production in the creation of wealth and prosperity. However, the Marxian school of thought considers labor, which includes entrepreneurship, as the primary input in the process of conversion of other resources into goods and services. In the knowledge economy, intangibles would play a critical role, what would matter the most is the spirit and mindset of entrepreneurial leadership for development. According to Schumpeter (1934 and 1942), it is the entrepreneur who disturbs the equilibrium and is the prime reason behind economic development that results in business cycles. He made pioneering contributions to entrepreneurship. He emphasized that the entrepreneurial spirit directly contributes to innovation and technological change in a nation, which leads to its prosperity. He developed the word *Unternehmergeist*-German for entrepreneurial-spirit – one who

makes things work and happen in the economy of a country.

Entrepreneurship contributes not only to the growth in gross national product and capita income but also to the development process through bringing in structural change in society. This change, by way of structural transformation, helps to achieve equitable distribution of income and greater opportunities to people belonging to the bottom of the pyramid and, in turn, contributes to their prosperity. It encourages innovations to be translated into reality and, thus, attracts new investments in new ventures. Thus, entrepreneurial development in an economy is the key to economic development.

Entrepreneurship Education in HEI: Discussions and Difficulties

Considering that HEI is a basic element of knowledge creation and innovation, entrepreneurship education in HEI constitutes a key driver for economic growth and wealth creation because it takes advantage of the talents of students, graduates, and researchers to promote innovative business and systemic entrepreneurship (Petridou et al., 2009). To understand the phenomenon of creation of new businesses by HEI students, some authors have studied the link between student's perceptions and entrepreneurial intentions (Makgosa and Ongori, 2012; Rengiah and Sentosa, 2015), the prevalence of business planning skills (Parsley and Weerasinghe, 2010; Ebewo and Shambare, 2012) and entrepreneurial support by HEI (Woollard et al., 2007; Yaghoubi, 2010) as factors that influence entrepreneurial activity. Furthermore, some authors have focused on the identification of challenges and opportunities to improve entrepreneurship education in HEI. The literature makes evident that entrepreneurship education programs design should consider the questions like

Why (objectives and targets), who (public), for what results (assessments, examinations), what (content, theories) and How (method, pedagogies). The effectiveness of the programs varies depending on the consistency and clarity of the answers to the above questions (Fayolle and Gailly, 2008). There are no standardized methods for assessing the results of entrepreneurship education programs, which is one of the great difficulties in making improvements over time (Niyonkuru, 2005). Furthermore, it must be noted that although there is a strong correlation between education and the propensity to engage in entrepreneurship activities, acquiring university education does not necessarily convert an individual into an entrepreneur (Walt and Walt, 2008).

Concerning the above, it is possible to find in the literature some clues about the main difficulties in accessing the results and in obtaining results from entrepreneurship education in HEIs as follows:

- The development of pedagogical methodology applied in HEIs needs a better understanding. The lack of descriptive details in the programs and poor assessment in structural programs make it impossible to conclude and thus, are considered barriers to the assessment of the effectiveness of entrepreneurship education (Yaghoubi et al., 2011).
- Inappropriate syllabus, content, and educational planning are also mentioned by several authors (Rahimi and Mokhber, 2010; Yaghoubi et al., 2011; Razavi et al., 2012; Shambare, 2013). These aspects result, in great part, from the lack of understanding of the differences between the entrepreneur and the owner-manager, who can induce a similarity in educational practices. According to the European

Commission (2012), the historical development of entrepreneurship education oftentimes started with small business and management education leading, in some cases, to focus almost exclusively on how to start and run a business in such a way that this type of entrepreneurship education comes at odds with the general objectives of the HEI.

- Several authors mention inappropriate teaching methods as difficulty in HEI entrepreneurship education, such as the use of an excessively theoretical methodology and entrepreneurship education based mainly on business plans preparation (Audet, 2004; Mohammadi et al., 2007; Abranja, 2008; Yaghoubi et al., 2011; Razavi et al., 2012; Shambare, 2013). In conditions where students are not exposed to real business scenarios, they are less likely to be motivated to choose entrepreneurship as a career path (Yaghoubi, 2010; Ebewo and Shambare, 2012; Makgosa and Ongori, 2012; Shambare, 2013). In the same line, Rahimi and Mokhber (2010) identified the focus of students on their academic degrees and the lack of attention to applied skills as barriers to the effectiveness of entrepreneurship education. In 2008, the European Commission reported that the perceived lack of relevant experience and self-confidence are the reasons why graduates are not involved in entrepreneurship after graduation. Furthermore, if they become entrepreneurs, they face numerous challenges and difficulties when setting up their businesses due to their lack of business experience and technical know-how. The traditional methods of entrepreneurship education do not

contain the innovation component. Thus, they do not promote entrepreneurial skills in students and inhibit the ability of teachers to take risks and take on new practices to achieve new publics and contexts (Kirby, 2006).

- In fact, another barrier pointed out in literature regards the shortage of human resources with entrepreneurship training, the insufficient provision of training to the teachers, and weakness in the motivational skills of teachers (Rahimi and Mokhber, 2010; Razavi et al., 2012; European Commission, 2002, 2012).
- Lack of entrepreneurial support is also mentioned by several authors, both as an objective fact as well as subjective perception (Shambare, 2013). Barriers such as the economic environment, the bureaucracy of government and the difficulties in obtaining private financing (banks and venture capital) are pointed out by graduate students as one of the biggest obstacles to setting up their own business, often for lack of information about the business creation process (Yaghoubi, 2010; Ebewo and Shambare, 2012; Makgosa and Ongori, 2012; Costa, 2013).

Given the above, some authors agree that learning by doing and through relationships should be promoted, including broader and more diverse teaching in content and activities, which includes, e.g., information on support and funding systems, greater proximity and contact with entrepreneurs and their realities, and for which, better preparation of teachers is also required (Lima et al., 2012).

All these factors concerning individuals (students and teachers), institutions (HEI) and macro environment (political and

cultural aspects) are barriers for entrepreneurship development in the higher education system. However, in the context of developing Entrepreneurship Education in the Context of Developing countries, where entrepreneurship is seen as an important development vector and where entrepreneurship education in HEI plays a key role to promote systemic entrepreneurship, little is known about how this process has been implemented, the results and the specific barriers faced by the HEI.

Entrepreneurial Mindset

In the 21st century, the concept of entrepreneurship acquired a new dimension of a mindset, which differentiated the earlier perspective of identifying opportunities, taking risks and crystallizing ideas into reality. It is here that entrepreneurial leadership and mindset play a critical role in successfully translating a business idea into reality. It is this perspective that makes a difference whereby even a relatively bad idea can yield good results, but a good idea need not necessarily yield good results in the entrepreneurship journey. It is this mindset that builds lasting businesses.

McGrath and MacMillan (2000), in their book *The Entrepreneurial Mindset*, highlight the key aspect of establishing an entrepreneurial mindset as 'creating the conditions under which everyone involved is energized to look for opportunities to change the business model'.

The question arises as to what is meant by mindset. It means how you think, what your belief system is, what your habits and traits are, how you feel about yourself, how confident and courageous you are, how much you trust others and whether you have the self-esteem to be successful. In short, success as an entrepreneur or otherwise depends to a great extent, upon your character, your thinking and your belief

system. Therefore, it is also said that entrepreneurship is nothing but attitude. It has been rightly said by William James that "The greatest discovery of my generation is that human beings can alter their lives by altering their attitudes of mind".

Thoughts germinate mainly from the information stored in the mind, which comes mainly from the 'past programming'. So, it is the past programming and conditioning that govern the thought process. Thus, what matters most is the programming that is subject to modifications through conscious learning from experiences. This leads to the fundamental question that governs the mindset- How do we get programmed? Fundamentally, there are three ways in which our programming keeps taking place namely, verbal programming, implying what we heard when we were young; modeling, implying what we saw when were young; and specific incidents, implying what we experienced when were young. All such incidents and experiences result in the formation of a mindset that matters the most in our attitude towards life, and ultimately, our success. The question is how to cultivate a mindset that facilitates our becoming an entrepreneur. What it takes to cultivate such a mindset is a conscious effort through a process of awareness, understanding, dissociation and affirmation by taking the following steps:

- Awareness- write down all statements you heard about whatever you are trying to change.
- Understanding- write down how you believe these have affected your life so far.
- Dissociation- decide whether you want to continue with these thoughts or beliefs or change them now.
- Affirmation- make an affirmation to yourself 'what you heard about this particular thing is not true and you

choose to adopt new ways of thinking.

Thus, for becoming a successful entrepreneur, the most important ingredient is our mindset that needs to be properly cultivated through the aforementioned steps. It has been usually found that it is this spark in an entrepreneur that ultimately plays the most crucial role in their success or failure as an entrepreneur.

In 2018, the 'Futurpreneur Canada', a national non-profit organization that has helped almost 10,000 Canadians aged 18-39 years launched start-ups with business coaching, financing, mentoring and other resources asked the best and brightest young entrepreneurs and influential leaders the following: 'How to help young people to develop the entrepreneurial mindset and skills they will need to succeed in changing world of work?'. Their response are as follows:

● **Build Skills through Education**

Every young person must be ready to see and act on opportunities throughout their careers. As young people can no longer count on having jobs waiting for them as they graduate. Student needs digital and financial and digital literacy education as well as entrepreneurial training to help them develop and create value with their ideas. They need opportunity to tackle real world problems, present and defend their ideas and skills, and practice entrepreneurship through internship and cooperative placement programs and extra-curricular activities.

● **Redefine Entrepreneurship through Storytelling**

Billionaire entrepreneurs like Oprah Winfrey, Richard Branson, Jack Ma are not realistic role models. By better profiling and

celebrating the diverse range of everyday entrepreneurs who fuel our economies, entrepreneurial success can be redefined and failure can be destigmatized. Storytelling can make entrepreneurship feel attainable for every young person regardless of their gender, color, race or religion.

● **Create Communities through Peer Network**

As full-time jobs diminish, a peer will need strong peer networks to build their careers. People launching and growing businesses, for example, financing and mentorship, but also benefit from the experience, resources and networks of other entrepreneurs. Providing collaborative spaces such as incubators and co-working spaces and events facilitates peernetworking. Creating formalized digital networks for entrepreneurs and freelancers also helps, particularly to support peer-networking across borders and by people in small and rural communities.

Converging on the Entrepreneurial Mind

While there is an undeniable core of such inborn characteristics as energy and raw intelligence, which an entrepreneur either has or does not, it is becoming apparent that possession of these characteristics does not necessarily make an entrepreneur. There is also a good deal of evidence that entrepreneurs are born and made better, and that certain attitudes and behaviors can be acquired, developed, practiced and refined through a combination of experience and study.

Themes have emerged from what successful entrepreneurs do and how they perform. Undoubtedly, many attitudes and behaviors characterize the entrepreneurial mind and there is no set of attitudes and behaviors that every entrepreneur must-have for every venture opportunity. A consensus has emerged around six dominant themes, shown in Table 1.

Idea to Opportunity

There exists a big difference between having a big idea and converting it into a great opportunity. Entrepreneurs must learn the art of identifying a particular idea from amongst many ideas that could be said to be a genuine opportunity. As such true opportunities at a particular point in time are a great treasure and are highly valuable.

The fundamental difference between an idea and an opportunity lies in whether the entrepreneur can turn it into a product/service that would attract customers' attention and bring profits to the entrepreneur. Entrepreneurs should doubly make sure that they have an opportunity and not just an idea that could make a real difference to the customers. According to Isenberg (2010), 'opportunities consist of three vital parameters, namely, the alignment of a market need (hunger); a personal competence (ability to reach the goal) and values or motivation (willingness to man a 24-hour watch).

Steps involved in Assessing Business Potential of an Idea

- Idea
- Opportunity, Analysis and Assessment
- Business Model
- Customer Validation
- Business Potential vis-à-vis Entrepreneur Competencies

An entrepreneurial opportunity is defined by Shane (2003), as a situation in which a person can create a new means-end framework for recombining resources that the entrepreneur believes will yield profit. This definition highlights two key aspects, namely an entrepreneurial event taking place in the environment by using resources and an individual at the back of it who steers it

through creation, recombination and their belief system. The word belief has a special significance as ultimately not all opportunities thought to be profitable may not turn out to be profitable and secondly, some opportunities are not pursued with a pure profit motive.

Opportunity Recognition

- Idea
- Conceptual and Technical Insight
- Assessment, Preparation Presentation
- Opportunity Recognition, Reality Check with other Opportunities
- Systematic Evaluation and Team Formation for Implementation

Opportunity recognition is of central importance to entrepreneurship (Baron, 2007). The decision to find a new venture often arises from a person's belief they have recognized an opportunity with profit potential, suggesting variance in the tendency of people to start businesses can be explained by the differences between them is their tendency to recognize entrepreneurial opportunities (Gaglio and Katz, 2001).

A simple way to find *prima facie* whether an idea that one has would be an opportunity lies in answering some of the following fundamental questions:

- Does your business idea respond to someone's pain, discomfort, displeasure, anxiety and so on?
- Do you find a large market for your idea as could be assessed from having many people looking forward to relief from the aforementioned pains and discomfort?
- Do these people from the assessed target market consisting of individuals, companies or

governments have adequate money to pay for relieving themselves from their pain, anxiety and discomfort?

- Do they need your product or service immediately or can it be postponed?
- Does your idea have something unique in it so that it can avoid competition?
- Do you possess some of the important assets such as money, access to customers, technology, leadership skills, employees, execution capability, location, a patent that would give you a sustainable competitive advantage?
- Do you have a winning team with complementary skills and similar values to execute your idea?
- Would your idea generate adequate cash flows and valuable information to take it further?

If yes is the answer to most of these questions, you can be sure that it is an opportunity at a given point in time. Table 2 has presented sources of opportunity for entrepreneurship in the current context.

Recommendations

The following are the prerequisite for fostering entrepreneurship among students pursuing their studies from higher education institutions:

- There is a need to reposition the tertiary institutions with capacity into an entrepreneurial/ research university model.
- There is a need to improve on the pedagogical methodology applied in teaching entrepreneurship education in tertiary institutions to assess the effectiveness of entrepreneurship education.

- The syllabus and methodology of entrepreneurship education need to be revised giving special focus on the entrepreneurial mindset and opportunity identification which are core to entrepreneurship.
- A new model of innovative finance needs to be devised that will be available and suitable to graduates to start their enterprises.
- Tertiary institutions in Nigeria need to coordinate a strategy that will produce innovative entrepreneurs that will give rise to entrepreneurial firms. More teachers need to be trained with specialization in entrepreneurship.
- The government needs to create an enabling environment that will enable the shift to an entrepreneurial economy.

CONCLUSION

A graduate that has been subjected to the rigors of entrepreneurial training will no doubt fit into the ever-competitive Nigerian graduate job market as a job creator and employer. He needs an entrepreneurial mindset to transform the idea into an entrepreneurial opportunity. The Government and all stakeholders need to enable the creation of entrepreneurial society, especially re-orientation of the universities with capacities towards entrepreneurial university model. This will ensure the recycling of the energy of the society in distributed innovation making prosperity and progress to be sustainable.

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ANNEXURES

Table 1: Six Themes of Desirables and Acquirable Attitudes and Behaviours

S/N	Theme	Attitude or Behaviour
1	Commitment and Determination	Tenacious and decisive, able to recommit/ commit quickly
		Intensely competitive in achieving goals
		Persistent in solving problems, disciplined
		Willing to undertake personal sacrifice
		Immersed
2	Leadership	Self-starter; high standards but not perfectionist Team builder and hero maker; inspires others Treat others as you to be treated Shares the wealth with all the people who helped create it Honest and reliable; builds trust; practices fairness Not a lone wolf Superior learner and teacher; courage Patient and urgent
3	Opportunity Obsession	Has intimate knowledge of customers' needs and wants Market driven Obsessed with value creation and enhancement
4	Tolerance of Risk, Ambiguity and Uncertainty	Calculated risk taker Risk minimizer Risk sharer Manages paradoxes and contradictions Tolerates uncertainty and lack of structure Tolerates stress and conflict Able to resolve problems and integrate solutions

5	Creativity, Self-reliance and Adaptability	Nonconventional, open-minded, lateral thinker Restless with status quo Able to adapt and change; creative problem solver Quick learner No fear of failure Able to conceptualize and 'sweat details' (helicopter mind)
6	Motivation to Excel	Goal and result oriented, high but realistic goals Drive to achieve and grow Low need for status and power Interpersonally supporting (versus competitive) Aware of weaknesses and strengths Has perspective and sense of humour

Source: Timmons and Spinelli (2007)

Table 2: Sources of Opportunity for Entrepreneurship in Current Scenario

Change Causes Disruption, Resulting in Technological Developments, New Business Models, New Cost Structures, New and Different Distribution Chain and Payment Mechanism					
Demographic	Economic	Socio-cultural	Technological	Political	Legal and Regulatory
Population Growth Density Urbanization Age profile	Growth Emerging Markets Income Distribution Pattern, Cost, Productivity and Government Policy	Value system, Role models, Environmental and Health Concerns	R & D Outcomes Resulting in Technological Developments	Democratic, Socialistic, Communistic, and Capitalist System and its Impact on Business Environment	Competitive Mechanisms, Intellectual and Physical Property Rights and Insolvency Laws

DETERMINING THE LINKAGE OF ENVIRONMENT PERFORMANCE REPORTING WITH THE FINANCIAL PERFORMANCE OF THE INDIAN BANKING SYSTEM

Raveena*, Deergha Sharma**

In the modern era, profitability does not suffice the requirements of a successful firm and hence an approach that positively affects the society in totality dominates the business world. One of the major criteria which can create a remarkable impact on the financial performance of Indian banks is environmental reporting, which adds value to a business entity. The previous studies which emphasized the relationship between financial and environmental performances of the Indian banks are inconsistent and inconclusive, thereby, leaving scope for future research. The current study has been conducted to examine that public and private sector banks exhibit any relation on environmental performance with financial performance or not. For data collection and analysis, various reports such as annual reports, sustainability reports, CSR reports and BRR reports for the year 2019-2020 have been utilized in the study. A sample from 21 private and 11 public sector banks has been assessed for the comparison of results. The content analysis technique, linear regression has been applied for the performance review of selected banks. The research attempts to give useful insights to the bank management and regulators to consider the effect of environmental indicators on the financial performance of Indian banks. The study would also introduce new dimensions for researchers exploring only financial parameters for evaluating bank performance.

Keywords: Commercial Banks, Environmental Reporting, Financial Performance, Linear Regression.

INTRODUCTION

In the current volatile business environment, various businesses are striving for profitability and sustainability. The success of a firm is not confined to attaining profits, but also to satisfy the demand of stakeholders comprising the environment, employees and the community (Freeman and Evan, 1990; Sharma et al., 1999).

Climate change, global warming, loss of biodiversity and water scarcity are some of the environmental problems that will grapple with in the near future. The government, policymakers, special interest groups, public and business firms are creating awareness on environmental issues throughout the world in the last few decades (Banerjee, 2002). Environmental degradation not only

impacts the present generation but can cause irreparable damage to the future generation. To create a sustainable environment and to overcome global warming and its challenges, enterprises such as banks, individuals and government, can play a prominent role (Green Research Framework, 2013).

Society is becoming increasingly distressed about environmental performance which has led to debates on issues such as climate change, environmental degradation, social responsibility, business ethics etc. (Jabbour and Santos, 2008). The pressure among financial service providers such as banks to go green is ever increasing. The banking sector acts as an intermediary between borrowers and savers and thus, contributes to sustainable development (Jeucken and Bouma, 1999; Scholtens, 2009; Munjal et al.,

* Research Scholar, School of Management, The North Cap University, Gurugram.

** Assistant Professor, School of Management, The North Cap University, Gurugram.

2019). For long- term sustainability, banks have to efficiently assess and manage environmental performance (First Carbon Solutions, 2014).

The financial services sector has suffered from various crises although retain a paramount importance in the modern economy. Allen and Carletti (2012) have found through their research a positive relationship between highly mature banking services, economic growth and sustainable development by conducting inter country comparisons, analyzing countries at an individual level, and examining industry- and firm-level data. The origin of interlinkages between sustainable development and banking transactions can be roughly found around the 1990s (Jeucken, 2010), when banks began to recognize and include environmental requirements directly through operational activities and indirectly through products and services (Macdonald 2011; Scholtens 2009). The direct environmental impact of banks is measured by their consumption of utilities (electricity, water, heat, natural gas and others), use of typical office supplies (paper, toner etc.) and generation of municipal waste and air pollution.

The rising concerns of saving the environment have induced businesses to invest in eco-friendly practices. The organizations are contributing and disclosing their practices in various reports. As far as existing studies are concerned, limited emphasis is given on exploring the extent of environmental reporting undertaken by Indian commercial banks and its impact on financial parameters. Moreover, a comprehensive approach embracing various parameters suggested by GRI-G4 guidelines is not proposed by past research conducted in the Indian context. The study attempts to extend the existing work by assessing the present circumstances of environmental reporting by Indian commercial banks and

its interrelationship with financial performance.

The effect of sustainability measures on improving competitiveness and a bank's financial-economic success has been debated in the literature. Banking sector lacks uniform methodologies and practices to promote sustainability despite the presence of multiple general standards (Munzele and Zadek, 2019). Thus, the study focus on assessing the operations of commercial banks in the context of international sustainability, according to GRI G4 Sustainability Reporting Guidelines.

This research further adds to the existing literature by providing a highly detailed view of the relationship between creation of shareholder value and sustainability performance when used as a proxy for the objectives of other stakeholders. The findings can be utilised broadly, both as a medium to support decision-making and to assess the banking sector.

The study would be relevant for bank managers, policymakers and experts to comprehend the relevance of environmental reporting in their regular business operations and provide valuable inputs to attain long-term sustainability.

REVIEW OF LITERATURE

Sustainability reporting has emerged as an outcome of the increasing demands of stakeholders regarding transparency, accountability in environmental and social subjects (Segui-Mas et al. 2015). In recent years, various studies have been directed to exhibit a correlation between financial performance and environmental performance of firms. Several kinds of research have ascertained positive or negative relationships while some studies did not find an association between the parameters (Weber, 2017; Misani and Pogutz, 2015). The study of Clarkson et al., (2011)

conducted on Australian firms, indicated a positive influence on financial and environmental performance. Mathieson (2008) also found similar results that green banking and bank profitability are positively related which leads to customer loyalty (Pinter et al., 2006). Hart and Ahuja (1996) disclosed that environmental performance positively impacts the financial performance of US manufacturing organizations from the year 1987-1996. Jaggi and Freedman (1982) investigated the investors reaction to disclosing and non-disclosing firms from highly polluting industries and concluded that investors respond positively to the disclosure of large expenditure on pollution reduction. Dogl and Holtbrugge (2014) examined developed countries (USA and Germany) and developing economies (India and China) on corporate environmental responsibility, employee commitment and employer reputation. Results showed that green technology, culture, recruitment and communication positively impacts the environmental reputation of the firms.

In the study of Kim and Kim (2014) also it was found that there exists a positive correlation between CSR and shareholder value growth in the tourism industry. The adoption of green banking practices ultimately led to saving the environment and improving the performance of the banks (Tandon and Setia, 2017; Munjal and Sharma, 2019). Rajput et al. (2013) conducted a study on environmental and financial performance of banks where they conducted an empirical test using panel data regression method and conclusively established that environmental and financial performance are positively correlated with each other. Studies of listed Swedish companies have presented a negative impact between market price and overall environmental performance (Hassel et al., 2005).

Hart and Ahuja (1994, 1996) found the negative association between emission depletion and corporate performance for S&P

firms. Furthermore, there is significant research in the domain that highlights that there exhibit an inverse correlation between the corporate financial and environmental performance of the first 150 U.S. and Swiss Banks (Blum, 1995). Few researchers investigated the insignificant association between green banking (eco-friendly banks) and the company's profitability (Chen and Metcalf, 1980). Cordeiro and Sarkis (1997) conducted a study on environmental proactivist and corporate performance and concluded the negative association between the two constructs. Rajput et al. (2013) found no relation of environmental performance with financial performance. Munjal and Sharma (2020) stated that Indian public banks' environmental performance has no linkage with financial performance. Similar results were found in Elsayed and Paton's (2005) study conducted in UK which concluded that there is no linkage between the financial and environmental performance of enterprises using dynamic and static data analysis.

Study of Orazalin (2019) on corporate governance and corporate social responsibility reported that board gender has a positive impact on CSR reporting but found no significant impact on board size and independence. Gopi (2016) proved that Banks were indirectly causing severe environmental degradation by financing programs whose activities had a negative impact on the environment. Aubhi (2016) disclosed that very few commercial banks were engaged in or actively promoted in-house environmental management. Furthermore, the number of banks contributing towards environmentally friendly finance through their Green Energy Loans also remained low. However, this also implied that there was scope to contribute and make adequate investment in producing and using renewable energy. Chen et al. (2018) suggested that banking sector plays an intermediary role between environmental protection and economic development.

Objective

To determine a linkage of environmental performance reporting and financial performance of Indian bank.

HYPOTHESES

H₀₁: Public sector banks' environmental performance impacts ROA.

H₀₂: Public sector banks' environmental performance impacts ROE.

H₀₃: Private sector banks' environmental performance impacts ROA.

H₀₄: Private sector banks' environmental performance impacts ROE.

RESEARCH METHODOLOGY

The Study: The study is exploratory in nature and intends to determine a linkage of environmental performance reporting and financial performance of Indian banks.

The Sample: For collecting data, a set of reports from 21 private and 11 public sector banks for the year 2019-2020 is utilized in the study. This analysis has been done for the public and private sectors independently.

Tools for Data Collection: For data collection and analysis, various reports such as annual reports, sustainability reports, CSR reports and BRR reports for the year 2019-2020 have been utilized in the study.

Tools for Data Analysis: The content analysis technique has been applied for the performance analysis of selected banks. Independent variable i.e., Environmental Performance measured by environmental indicators suggested by GRI- G4 guidelines (Kumar and Prakash, 2019) and financial performance is selected as an explained variable evaluated in terms of Return of Equity (ROE) and Return on Assets (ROA). Linear regression was used to analyse the data and various assumptions like autocorrelation, multicollinearity were

checked before applying regression. Data analysis was done through SPSS software.

PROPOSED MODEL ANALYSIS

To test the hypothesis, a linear regression technique has been used. The empirical model used for evaluation is:

$$ROA = \pm + {}^2_1EP + e \quad (1)$$

$$ROE = \pm + {}^2_2EP + e \quad (2)$$

where,

ROA = Return on Assets

ROE = Return on Equity

\pm = Intercept / Constant

${}^2_1, {}^2_2$ = estimates of independent variable

EP = Environmental Performance (Supplier Environmental Assessment, Waste, Biodiversity, Materials, Energy, Water, Emissions and Environmental Compliance (as per GRI G4 indicators)

e = Error / Residual

RESULT AND DISCUSSION

The current study has been conducted to examine if public and private sector banks exhibit any relation between environmental performance and financial performance. To answer this, Content analysis was carried out. In this case, the focus was on environmental disclosures corresponding to the guidelines of GRI. This study analyses 21 private sector banks and 11 public sector banks along with data collected from sustainability reports, BRR reports, CSR reports.

Descriptive results and the results of statistical analysis were obtained using SPSS Tool. Descriptive statistics such as mean, median, and standard deviation were obtained for the dependent and independent variables. Independent variable i.e., Environmental Performance

measured by environmental indicators suggested by GRI- G4 guidelines, and financial performance is selected as an explained variable evaluated in terms of ROE and ROA.

Table 1 shows descriptive information of variables. The negative value of the mean of ROA and ROE of selected private and public sector banks indicates that banks should take rigorous measures to increase their financial performance. The mean value of 38.69 and 36.36 in private and public sector banks of environmental performance shows that Indian banks are rarely involved in environmental activities. As a result, it concludes that environmental performance and its reporting are not impacting Indian public and private bank's financial performance.

Table 2 has depicted regression results of public sector banks. The Durbin Watson value lies between 1 and 3, which shows that there is no autocorrelation (Field, 2009). R-value indicates the relation between expected and observed values of criterion variables while R square values of .084 and .393 demonstrated environmental performance to account for 8 percent and 39.3 percent of deviation in ROA and ROE respectively in public sector banks.

Regression results of private sector banks are presented in Table 3. Durbin Watson's values lying between 1 and 3 shows that the residuals are not correlated. R is the measure of the correlation between the observed value and the predicted value. The contribution of the explanatory variable to the dependent variable is represented by the R square value. The coefficient of determination of ROA comes out to be 0.029 and the R square value of ROE is 0.030, showed that the percentage contribution of environmental performance variables to financial performance variables is 2.9 percent of ROA and 3 percent of ROE, while the rest of the value is affected by other variables not considered by the model.

Table 4 shows the insignificant p-values (p-value > 0.05) concluding that there is no linkage of environmental performance reporting on the financial performance of Indian banks. The independent variables have VIF values less than 10 indicates that multicollinearity is not present in the data. (Gujarati, 2009).

Table 5 showed the insignificant p values (p values > 0.05) indicating that the ² coefficient of the explanatory variable is statistically insignificant in determining the relationship with the dependent variable of private sector banks. It implies that there is no association of environmental performance on financial performance of Indian Private Banks (Sarumpaet, 2005). The independent variables have VIF values less than 10 indicates that multicollinearity is not present in the data (Gujarati, 2004). In contrast with some previous literature that evidence a positive relationship between environmental and financial performance (Van Beurden and Gossling, 2008; Ahmad et al., 2018).

Earlier studies by Hassel et al. (2005), Kim and Kim (2014) and Rajput et al. (2013) showed a positive relationship between environmental and financial reporting disclosure. Correlation analysis is consistent with the result of Gopi (2016) and Anubhi (2016) which reveal that there is no significant association between environmental and financial reporting of Indian banks. The outcomes of the analysis are in consonance with that of Orazalin (2019). The paper, however, indicates that few of the banks have recognized the importance of sustainability reporting and BRRs. In this study, by applying the content analysis method to evaluate the association between environmental reporting and financial performance, it was found that there is no significant relationship between environmental reporting and financial reporting of Indian public and private banks for the year 2019-20.

CONCLUSION

Indian banking sector has a prominent role in inducing economic growth. Banks provide funds from those who have an excess of cash to those who judiciously face cash shortages. Therefore, there is an immense need to measure environmental performance by the Indian banking sector. This paper is an effort to establish the linkage of environmental performance reporting on financial performance and to infer the results, various reports like annual reports, sustainability reports etc. were studied for the year 2019-20. It can be concluded that the bank's contribution in financing environment-friendly projects is not contributing to financial performance. The empirical results reveal that environmental performance has not significantly influence the financial performance reporting of Indian banks.

SCOPE OF FUTURE RESEARCH

The study has been conducted by considering environmental aspects and an effort has been made to explore its relationship with financial performance. Further, the time frame covered in the study for analysis is only one year, i.e, 2019-2020 which can be extended in future studies. Moreover, the sample to be studied can include banks such as regional rural banks and foreign banks as they are critical components of the Indian banking sector.

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ANNEXURES

Table 1: Descriptive Information

Banks	Variables	Mean	Standard Deviation	Number of Banks
Public Sector banks	ROA	-0.52	0.91	11
	ROE	-8.96	16.19	11
	Environmental Performance Score	36.36	2.13	11
Private Sector Banks	ROA	-0.01	23.23	21
	ROE	-3.31	24.01	21
	Environmental Performance Score	38.69	25.89	21

Source: Author's Own Computation

Table 2: Regression Results -Public Sector Banks

	R Value	R ² Value	Adjusted R ² Value	Standard Error of the Estimate	Durbin-Watson Value
ROA	.289	0.084	-0.018	0.82507	1.182
ROE	.627	0.393	0.317	0.4675	1.26

Source: Author's own computation

Table 3: Regression Results - Private Sector Banks

	R Value	R ² Value	Adjusted R ² Value	Standard Error of the estimate	Durbin-Watson Value
ROA	.170	0.029	-0.032	0.45685	2.078
ROE	.173	0.03	-0.031	0.3952	1.95

Source: Author's own computation

Table 4: Coefficients- Public Sector Banks

		Unstandardized Score		Standardized Score	T	p-value	Collinearity statistics	
		β	SE	B			Tolerance	VIF
ROA	(Constant)	1.796	0.997		1.801	0.109		
	Environmental performance score	-1.436	0.638	-0.622	-2.25	0.055	1	1
ROE	(Constant)	3.096	1.02		3.036	0.016		
	Environmental performance score	-1.486	0.653	-0.627	-2.28	0.052	1	1

Source: Author's own computation

Table 5: Coefficients- Private Sector Banks

		Unstandardized Score		Standardized Score	T	p-value	Collinearity Statistics	
		β	SE	B			Tolerance	VIF
ROA	(Constant)	0.488	0.714		0.683	0.504		
	Environmental performance score	-0.306	0.443	-0.17	-0.692	0.499	1	1
ROE	(Constant)	1.443	0.618		2.335	0.033		
	Environmental performance score	-0.268	0.383	-0.173	-0.701	0.493	1	1

Source: Author's own computation

EFFECT OF DEMOGRAPHIC VARIABLES ON RISK TOLERANCE AMONG ACADEMICIAN INVESTORS - AN EMPIRICAL ANALYSIS

***Renuka Sharma**

The impact of risk-taking capacity on the investment decisions of a rational investor is an evolving subject in the behavioural finance literature. Every financial investment has an element of risk. The purpose of the study is to examine whether socio-economic variables viz. gender, age, marital status, annual income, occupation and educational qualification have effect on risk tolerance among academician investors. 250 academician investors from nine colleges and universities from the city of Gurugram through a structured questionnaire have been used as a primary source of data collection. Data was gathered through Convenience Sampling. Chi-square and Correlation were applied as a method of data analysis. The analysis depicts that age, gender, marital status, occupation and annual income has effect on the risk tolerance of academician investors.

Keywords: Risk Tolerance Level, Demographic Factors, Academician Investors, Chi-Square, Correlation.

INTRODUCTION

The impact of risk-taking capacity on the investment decisions of a rational investor is an evolving subject in the behavioural finance literature. Every financial investment has an element of risk. It is a situation where the anticipated return is lower than the actual return. While making investments the highest level of risk an investor is willing to undertake is the risk tolerance level. Risk tolerance is the willingness of an investor to engage in a financial transaction in which the results are unpredictable. Investment decisions are relying on the amount of risk undertaken by investors and this risk-taking ability differs from individual to individual according to their demographic attributes.

Studies propounded that socio-economic variables and demographic factors impact the risk-taking ability of individual investors thereby impacting their investment decisions. The attributes like age, gender, marital status, annual income, occupation and education impact the risk-taking ability of the investors. The individual investor will select that alternative in which the returns

are greater than the risk involved. To select from investment alternatives an investor will seek guidance from different advisers and take into consideration past portfolio performance. Investors with varied risk tolerance make their investment decisions, however, demographic variables exert diversity in choosing investments. The higher amount of risk represents a higher risk-taking ability. Risk-taking ability also increases with the investment experience. Investors will take high risk, moderate risk or less risk to get the returns as per their needs. This study is aimed to find out the degree to which socio-economic variables influence an investor's risk tolerance attitude.

REVIEW OF LITERATURE

Many studies have investigated the relationship between several socio-economic factors like gender, age, marital status, education, income, and investors risk propensity (Praba, 2016, Subramaniam and Velnampy, 2016, Lutfi, 2011, Sultana, 2010). Kannadhasan (2015; 2006), Sulaiman (2012), Kabra et al. (2010), Watson and Naughton (2007), Raarajan (2003), Schooley and

* Assistant Professor, Faculty of Commerce Shree Guru Gobind Singh Tricentenary University, Gurugram.

Worden (1996), Sung and Hanna (1996), Xiao and Noring (1994) studied how investment behavior and risk tolerance differs with the personal features of individual investors like age, gender, income, educational level of individuals. The actual risk tolerance can be determined by understanding and establishing the relationship between risk-taking ability and demographic attributes. Sulaiman (2012) investigated the correlation between socio-economic attributes and the risk-taking ability of 300 investors employed in two universities. In the research, there were six independent variables viz. gender, age, marital status, education, annual income, number of dependants) and financial risk tolerance was the independent variable. It was found that age, marital status, educational qualification and annual income play an important role in deciding the risk tolerance level of individual investors.

Ansari and Phatak (2017), Thanki (2015), Yao and Hanna (2005), Hallahan et al. (2004), Grable and Lytton (1999), Sung and Hanna (1996), Maccrimmon and Wehrung (1986) examined that socio-economic variables have an important influence on the risk-taking ability of individuals. It was seen that age influences the risk tolerance level of the individuals the most. Individuals who are in their younger age were more risk-tolerant than the older ones. Unmarried people were less risk-tolerant than married couples. A higher level of financial risk was more taken up by educated investors and higher-income earning investors have a higher level of risk tolerance. Therefore, there is a direct association between income and the amount of risk taken. Ahmad et al. (2011), Korniotis and Kumar (2011), Al-Ajmi (2008), Deaves et al. (2007), Nairn (2005), Wallach and Kogan (1961) found that with the increase in age the risk tolerance level of the investors decreases. Age and risk-taking ability have a negative association. It is also confirmed that the young generation was more risk-averse than the older one.

Ansari and Phatak (2016), Dawson and Henly (2015), Thanki (2015), Gaur and Sukijha (2011), Grable and Roszkowski (2007) and Bajtelsmit et al. (1999) concluded that men are less risk-averse than women. The risk-tolerance level of women is lesser than men and men are overconfident about their ability of risk-taking. Women have less confidence in investing activities and they take special care when they make equity investment decisions. An examination was done by Eckel and Grossmann (2008) that men hold more risky investments and invest in risky assets. Achar (2012), Sultana and Pardhasaradhi (2011), Ahmad et al. (2011), Wong (2011), Chou et al. (2010), Hallahan et al. (2004), Yao and Hanna (2005) and Ardehali et al. (2005) argued that marital status and risk-taking ability has an impact on decision making regarding investments. There is a positive relationship between marital status and the decisions related to investments. Married people prefer less risky investments than unmarried people. They feel that their risky investment decision affects the financial positions of their family. Shusha (2017), Reddy and Mahapatra (2017), Weber et al. (2002), Grable and Lytton (1998) and Baker and Haslem (1974) have found the positive correlation between educational qualification and risk-taking ability. A riskier portfolio has been taken up by educated investors.

Ansari and Phatak (2016), Chavali and Mohanraj (2016), Subramaniam and Velnampy (2016), Sung and Hanna (1996) and Maccrimmon and Wehrung (1986) stated that people who pursued self-employment are ready to take risks in their investment activities. People working in the government sector usually prefer to take less risk than private-sector employees. Sutejo et al. (2018), Ansari and Phatak (2016), Thanki (2015), Achar (2012), Geetha and Ramesh (2012), Sultana and Pardhasaradhi (2011), Wong (2011), Anbar and Ekmer (2010), Deaves et al. (2007), Ardehali et al. (2005) and Nairn (2005) revealed that income level influences

the risk-taking ability of an individual significantly. Higher earnings help as coverage for probable losses which may arise in the future. Kabra et al. (2010) and Ajmi (2008) concluded risk tolerance level of investors is strongly impacted by age and gender. Further, it is found that men are less risk averse than women and qualified and wealthy investors are more risk- seeker.

OBJECTIVE

The objective of the study is to examine the effect of demographic variables on the risk tolerance among academicians investors.

METHODOLOGY

The Study: The study is empirical in nature and aimed at studying the effect of demographic variables on the risk tolerance among academicians investors in Gurugram.

The Sample: Convenience sampling technique was used for data collection and data was collected from 250 academicians investors from various colleges and universities in Gurugram (Table 1 and 2).

Tools for Data Collection: A structured questionnaire has been used to collect the data from academicians investors from various colleges and universities in Gurugram. The secondary data has been gathered from various published sources such as books, journals, magazines, newspapers, websites and selected case studies.

Tools for Data Analysis: Chi-square test and Correlation were used to analyze the data with the help of SPSS Software.

HYPOTHESIS:

H₀₁: Risk tolerance level and age of academicians investors have no significant relationship.

H₁₁: The risk tolerance level and age of academicians investors have a significant relationship.

H₀₂: Risk tolerance level and gender of academicians investors has no significant relationship.

H₁₂: The risk tolerance level and gender of academicians investors have a significant relationship.

H₀₃: Risk tolerance level and marital status of academicians investors have no significant relationship.

H₁₃: Risk tolerance level and Marital status of academicians investors have a significant relationship.

H₀₄: Risk tolerance level and Qualification of academicians investors has no significant relationship.

H₁₄: Risk tolerance level and Qualification of academicians investors has a significant relationship.

H₀₅: Risk tolerance level and Occupation of academicians investors have no significant relationship.

H₁₅: Risk tolerance level and Occupation of academicians investors have a significant relationship.

H₀₆: Risk tolerance level and Annual Income of academicians investors have no significant relationship.

H₁₆: Risk tolerance level and Annual Income of academicians investors have a significant relationship.

Reliability of the Variables

The reliability of the data for six demographic variables was assessed by Cronbach's Alpha value. The value 0.780 indicates that the reliability of the variables is under acceptable limits. Similarly, Cronbach's Alpha value of 0.843 also confirms the reliability of the data related to risk tolerance level.

RESULT AND FINDINGS

To understand the correlation between demographic Variables and Risk Tolerance

Level of investors, the null hypotheses have been tested as follows:

H_{01} : Risk Tolerance Level and Age of academician investors have no significant relationship.

H_{11} : Risk Tolerance Level and Age of academician investors have a significant relationship.

Table 3 explains the Risk Tolerance Level of investors and its association with their Age. As shown in the table p-value is less than 0.05, which means the relationship is significant between these variable. Hence, there is a rejection of the null hypothesis which means there exists a statistically significant correlation between Risk Tolerance Level and Age of investors.

Table 4 shows that there is a direct correlation between Risk Tolerance Level and the Age of investors. This implies that as the age of academician investors increases the Risk Tolerance Level also increases. This result is in line with the studies conducted by Wang and Hanna (1998) and Grable (2000) which say that risk tolerance has a positive relationship with age whereas the person gets old the ability of risk-taking also increases.

H_{02} : Risk tolerance level and Gender of academician investors have no significant relationship.

H_{12} : Risk tolerance level and Gender of academician investors have a significant relationship.

Table 5 explains the Risk Tolerance Level of investors and its association with their Gender. As depicted in the table p-value is less than 0.05, which means the association is significant between these variable. Hence, there is a rejection of the null hypothesis which means there exists a statistically significant association between Risk Tolerance Level and Gender.

Table 6 depicts that there is a direct correlation between Risk Tolerance Level and Gender of academician investors. These results are consistent with the studies conducted by Pompian (2006) which stated that gender correlates with risk tolerance level.

H_{03} : Risk Tolerance Level and Marital Status of academician investors have no significant relationship.

H_{13} : Risk Tolerance Level and Marital Status of academician investors have a significant relationship.

Table 7 explains the Risk Tolerance Level of investors and its association with their Marital Status. As depicted in the table, p-value is less than 0.05, which means the association is significant between these variables. Hence, there is a rejection of the null hypothesis so there is statistically significant between Risk Tolerance Level and Marital Status.

Table 8 shows that there is a direct relationship between Risk Tolerance Level and Marital Status of investors. This means as the marital status of academician investors changes Risk Tolerance Level also changes.

H_{04} : Risk Tolerance Level and Qualification of academician investors have no significant relationship.

H_{14} : Risk Tolerance Level and Qualification of academician investors have a significant relationship.

Table 9 explains the Risk Tolerance Level of investors and its association with their Qualification. As depicted in the table p-value is greater than 0.05, which means the association is not significant between these variables. This led to the acceptance of the null hypothesis for the association of Risk Tolerance Level and Qualification, which means there is no statistically significant association between Risk Tolerance Level and Qualification.

Table 10 depicts indirect relationship between Risk Tolerance Level and Qualification of investors. So an increase in the qualification of investors may lead to a negative change in Risk Tolerance Level. This research is consistent with the results of Kannadhasan (2015), Thanki (2015) and Hallahan et. al. (2003) which indicated that education has no significant effect on financial risk tolerance.

H₀₅: Risk Tolerance Level and Occupation of academicians have no significant relationship.

H₁₅: Risk Tolerance Level and Occupation of academicians have a significant relationship.

Table 11 explains the Risk Tolerance Level of investors and its association with their Occupation. As depicted in the table, p-value is less than 0.05, which means the association is significant between these variables. Hence, there is the rejection of null hypothesis, therefore association between Risk Tolerance Level and Occupation of academicians is statistically significant.

Table 12 shows that there is a direct relationship between Risk Tolerance Level and the Occupation of investors. Thus occupation of academicians leads to a positive change of 0.156 points in Risk Tolerance Level in investments.

H₀₆: Risk Tolerance Level and Annual Income of academicians have no significant relationship.

H₁₆: Risk Tolerance Level and Annual Income of academicians have a significant relationship.

Table 13 explains the Risk Tolerance Level of investors and its association with their Annual Income. As depicted in the table, p-value is less than 0.05, which means the association is significant between these variables. So, the null hypothesis is rejected, and it can be said that association between

Risk Tolerance Level and Annual Income is statistically significant.

Table 14 shows that there is a positive correlation between Risk Tolerance Level and the Annual Income of investors. This means an increase in the Annual Income of academicians leads to an increase in the Risk Tolerance Level of investors. Sulaiman (2012), Thanki (2015) and Kannadhasan (2015) also indicated that income and risk-taking ability has a positive relationship.

CONCLUSION

Risk is an important determinant that has been contemplated by the investors while taking decisions regarding investments. To earn a maximum return, investors take more risks. However, the Risk Tolerance Level of investors depends on various factors. The research was conducted to show the correlation between demographic variables of academicians and their Risk Tolerance Level. Demographic factors like Age, Gender, Marital Status, Occupation and Annual Income have an impact on the Risk Tolerance Level of the academicians. However, there is negative relationship between an investor's Academic Qualification and Risk Tolerance Level. It is also concluded that Age, Gender, Marital Status, Occupation and Annual Income of investors are positively correlated with Risk Tolerance Level.

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ANNEXURES

Table 1: Sampling Unit Selected for the Study

S.No.	Institutions	Number of Academicians	Percentage
1	Shree Guru Gobind Singh Tricentenary University	50	20
2	Amity University	40	16
3	K R Mangalam, University	25	10
4	Gurugram University	30	12
5	G D Goenka University	25	10
6	Management Development Institute	20	8
7	Ansal University	15	6
8	Apeejay Satya University	20	8
9	Dronacharya Government College	25	10
	Total	250	100

Table 2: Demographic Profile of Respondents

Demographics	Variables	Frequency	Percentage
Gender	Men	156	62.4
	Women	94	37.6
	Total	250	100
Age	Less than 25 years	10	4
	25-less than 35 years	74	29.6
	35-less than 45 years	57	22.8
	45- less than 55 years	86	34.4
	More than 55 years	23	9.2
	Total	250	100
Marital Status	Married	141	56.4
	Unmarried	95	38
	Divorced	8	3.2
	Widow	6	2.4
	Total	250	100
Qualification	Post Graduation	89	35.6
	Professional	66	26.4
	Doctorate	95	38
	Total	250	100
Occupation	Private Sector Employee	161	64.4
	Government Sector Employee	89	35.6
	Total	250	100
Annual Income	Less than 2,00,000	39	15.6
	2,00,000-less than 5,00,000	53	21.2
	5,00,000-less than 10,00,000	73	29.2
	More than 10,00,000	85	34
	Total	250	100

Table 3: Chi-square Analysis for Association between Risk Tolerance Level and Age of Investors

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	65.335 ^a	9	.000
Likelihood Ratio	65.327	9	.000
Linear-by-Linear Association	36.085	1	.000
N of Valid Cases	250		

a. 7 cells (43.8%) have expected count less than 5. The minimum expected count is .53.

Table 4: Correlation between Risk Tolerance Level and Age of Investors

	Age	risk_avg
Pearson Correlation	1	.175**
Sig. (2-tailed)		.000
N	250	250
Pearson Correlation	.175**	1
Sig. (2-tailed)	.000	
N	250	250

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

Table 5: Chi-square Analysis for Association between Risk Tolerance Level and Gender of Investors

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	66.602 ^a	3	.000
Likelihood Ratio	80.430	3	.000
Linear-by-Linear Association	59.744	1	.000
N of Valid Cases	250		

Table 6 : Correlation between Risk Tolerance Level and Gender of Investors

		risk_avg	Gender
risk_avg	Pearson Correlation	1	.316**
	Sig. (2-tailed)		.000
	N	250	250
Gender	Pearson Correlation	.316**	1
	Sig. (2-tailed)	.000	
	N	250	250

Table 7: Chi-square Analysis for Association between Risk Tolerance and Marital Status of Investors

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	54.766 ^a	6	.000
Likelihood Ratio	52.714	6	.000
Linear-by-Linear Association	11.295	1	.001
N of Valid Cases	250		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .75.

Table 8: Correlation between Risk Tolerance Level and Marital Status of Investors

		risk_avg	Marital Status
risk_avg	Pearson Correlation	1	.137**
	Sig. (2-tailed)		.001
	N	250	250
Marital Status	Pearson Correlation	.137**	1
	Sig. (2-tailed)	.001	
	N	250	250

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

Table 9: Chi-square Analysis for Association between Risk Tolerance Level and Qualification of Investors

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	106.815 ^a	12	.381
Likelihood Ratio	121.259	12	.000
Linear-by-Linear Association	5.440	1	.020
N of Valid Cases	250		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.24.

Table 10: Correlation between Risk Tolerance Level and Qualification of Investors

		Risk_avg	Qualification
Risk_avg	Pearson Correlation	1	-.095*
	Sig. (2-tailed)		.020
	N	250	250
Qualificatio n	Pearson Correlation	-.095*	1
	Sig. (2-tailed)	.020	
	N	250	250

Table 11: Chi-square Analysis for Association between Risk Tolerance Level and Occupation of Investors

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	36.714 ^a	9	.000
Likelihood Ratio	40.643	9	.000
Linear-by-Linear Association	.078	1	.781
N of Valid Cases	250		

a. 7 cells (43.8%) have expected count less than 5. The minimum expected count is 1.15.

Table 12: Correlation between Risk Tolerance Level and Occupation of Investors

		risk_avg	Occupation
risk_avg	Pearson Correlation	1	.156**
	Sig. (2-tailed)		.000
	N	250	250
Occupatio n	Pearson Correlation	.156**	1
	Sig. (2-tailed)	.000	
	N	250	250

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

Table 13: Chi-square Analysis for Association between Risk Tolerance Level and Annual Income of Investors

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	125.477 ^a	15	.000
Likelihood Ratio	138.117	15	.000
Linear-by-Linear Association	26.401	1	.000
N of Valid Cases	250		

a. 4 cells (22.2%) have expected count less than 5. The minimum expected count is .64.

Table: 14 Correlations between risk tolerance and annual income of investors

		risk_avg	Annual Income
risk_avg	Pearson Correlation	1	.210**
	Sig. (2-tailed)		.000
	N	250	250
Annual Income	Pearson Correlation	.210**	1
	Sig. (2-tailed)	.000	
	N	250	250

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

ENVIRONMENTAL DISCLOSURE PRACTICES IN INDIA: A COMPARATIVE STUDY OF TATA CONSULTANCY SERVICES AND WIPRO LTD.

*Prerna Sharma **Swaranjeet Arora

This study has been undertaken to study the environmental reporting practices followed in India. In this study, the top two IT service companies, Tata Consultancy Services and WIPRO are examined, which are among the top five companies in the global A list in the GRI Index. The objective of this research paper is to lay emphasis on environmental disclosures at the corporate level and understand the importance of green accounting. In this study, five successive sustainability reports of both companies are examined on the various parameters such as water conservation, waste management, GHG emissions, energy conservation etc., and comparative analysis is performed. Corporates are voluntarily disclosing environment-related information in their annual reports. However, there is no set standard practice to disclose such information, due to which wide disparities could be seen in these reports.

Keywords: Environmental Reporting, Tata Consultancy Services, WIPRO, Green Accounting, GRI standards, Sustainability Reporting, Disclosure Practices.

INTRODUCTION

With the changes in societal needs, simultaneous changes are happening in the environment which requires attention of the masses, to be in sync with the sustainable development goals of the globe. As the awareness regarding environmental issues is increasing, the companies are also coming forward and taking responsibility for their actions and trying to reduce the impact by taking certain measures. Some companies are doing it willfully while some comply with the regulations.

The financial statement of the companies is a way to communicate the performance of the companies to its stakeholders. The information regarding the environment is either provided in the annual report of the company or the company issues a separate sustainability report.

The GRI is a not-for-profit international organization working independently. The GRI standards assist the business in

decreasing their ambiguousness and inform about both, positive and negative impacts on sustainable development. The companies can enhance their strategic decision-making by recognizing business opportunities, reduce uncertainties and have a strong stakeholder relationship. Currently, GRI Standards are leading global standards to report economic, environmental and social impacts. These standards are flexible and are structured in a manner that can be used by any organization associated with different businesses.

Green Accounting

Green accounting incorporates the environmental expenses and benefits in the calculation of the income of a business concern. It tries to account for not only the value of the environmental resources but also the cost of Deterioration and depletion of natural resources. It emphasizes more on the quality of economic growth in terms of sustainable development. There is just not a need of guarding the environment but also

* Research Scholar, School of Management, The North Cap University, Gurugram.

** Professor, School of Management, The North Cap University, Gurugram.

the creation of cognizance within the masses, regarding the necessity of the environment. The government and associations must acknowledge it. As the need for environmental protection is exponential so is the need for accounting for the well-being of the environment. The contributions made by the companies to the economy are known by the users of accounting information through the help of a type of accounting known as Green Accounting.

Economist and Professor Peter Wood was the first one to bring it into common use during the 1980s. Need for green accounting and its importance in India was first emphasized by former Environment Minister of India, Mr. Jairam Ramesh. The span of environmental accounting consists of Environmental expenses, Capitalization of environmental expenditures, Environmental liabilities, Environmental incomes/benefits and Environmental assets

Environmental Statutory Requirement

The Directive principle of the Indian Constitution (Article 51A) stated that every citizen of India has a duty towards protection and improvement of the natural environment which includes the ecological system and must be compassionate towards the other forms of life.

The above provisions of the constitution are supported by various legal conditions such as The Factories Act of 1948, The Prevention and Control of Pollution Act of 1974, The Forest Conservation Act of 1980, The Air Prevention and Control of Pollution Act of 1981, The Biomedical Waste "Management and Handling" Rules of 1998, The Municipal Solid Wastes Management and Handling Rules of 2000, The Ozone Depleting Substances Regulation and Control Rules of 2000; Noise Pollution: Regulation and Control (Amendment) Rules of 2002, and The Biodiversity Act, 2002.

To create an illness-free environment for the citizens of India, The Environment Department of India was founded in the year 1980. The Ministry of Environment and Forests (MOEF) changed the name for the department of environment, which was done in 1985. The tragedy of Bhopal Gas leakage led to the formation of umbrella legislation to cover loopholes that are present in the prevailing system, Environment Protection Act, 1986. The ministry's responsibility already included tackling climate change though its priority was increased in 2014 and the ministry was renamed to its present title of MOEF (Ministry of Environment, Forest and Climate Change).

Despite many legislations, there are no set standard frameworks that necessitate sustainability reporting in India. Although, steps are proposed to form standards that would allow the Indian corporations to have more awareness about social responsibility.

Mandatory Disclosure

The process of revealing and communicating about many facets of an enterprise's activities is administered by The Companies Act, 1956 which supervises and regulates all the companies in India. According to Section 217, Companies Act which demands that the Directors Report attached to the copy of the financial statements presented at the annual meeting should consist of information regarding energy consumption by the company. This report is also looked upon regarding details of the initiative taken for energy conservation, if any, additional investments and proposals are done or made if any, projects are being executed for decreasing energy consumption; the effect of the introduced steps taken on decreasing energy consumption and the adjacent effect on the production cost and the aggregate energy consumed and average energy consumed following some particulars sectors.

ICAI Accounting Research Foundation (ICAI-ARF) 2008

Research organization, ICAI-ARF, in the year 2008 was established by the ICAI (Institute of Chartered Accountants of India). Work is being done on a unique project by this foundation to suggest an adaptation structure for green reporting. Reporting on social, environmental and economic activities is compulsory for companies. For standardizing the framework for disclosure regarding sustainable reporting a committee is being formed. The companies which are planning to be listed abroad must report sustainability compulsorily.

Environment Protection Act (EPA) 1986

Following EPA (Environment Protection Act) of 1986, it is being provided by the Central Government that a yearly "Environmental Audit Report" in the informed structure to the regulating SPCB (State Pollution Control Board) is to be submitted by each covered organization. The parameters included while preparing the environmental statement are water and direct material consumed, the quantity of pollution created complemented with deviations which is present as per prescribed standards, the total quantity and main characteristics of types of harmful and concrete wastes, the impact of initiatives introduced to control pollution and the protection of environmental assets and on the production cost.

Factories Act, 1948

For public disclosure, no concrete identified means are provided. Preferably, all factories of India are required to file a report in the prescribed format under the act to their relevant state governments. Information is included regarding the workmen and work, hours of work, calamities, safety and health etc. The factories are under the mandatory responsibility to provide information to the authorities, is not mandated to publish this information

underneath present law. There are additional legal conditions which include several acts, rules, etc. The environmental management system of India is an extensive one having an absolute bundle of laws related to the environment, particular legal orders, supervising tools and structured design for implementation of objectives of the policy of the environment.

Independent Standards

The MCA (Ministry of Corporate Affairs) has launched VCRS (Voluntary Corporate Social Responsibility Guidelines) in 2009 considering the importance of sustainability in businesses. The CSR Policy is voluntary, and it acknowledges six major items namely, Caring about the related parties, Operations must be ethical, Respect for the workmen, Workmen's rights and welfare, Rights of humans must be respected and Environment should be respected and societal and comprehensive improvement activities should be done.

Corporate Responsibility for Environmental Protection (CREP) 2003

The CPCB (Central Pollution Control Board of India) has promoted a charter CREP (Corporate Responsibility for Environment Protection). Compliance is required by it from prime resource exhaustive industrial sectors. A circular has been issued by the RBI to every bank which is commercial wherein every commercial bank has to embrace Corporate Social Responsibility and develop sustainability.

Greenco Rating System for the Companies

In February 2011, CII (Confederation of Indian Industry) launched a one of its kind rating system for companies called Greenco rating system. It is an absolute rating that includes every facet of the impact on the environment consisting of power, water, GHGs emissions, generation of garbage etc. Great acceptance and response are given to

the Greenco rating system by the industry. Twenty large organizations such as Godrej Ltd., ITC Ltd., WIPRO, Dr. Reddy Labs, Mahindra Group, Jubilant, Bosch, JCB, Jindal Steels, ACC and Ambuja Cement have given written permission of its acceptance in respect of inventive rating system. It is expected that India will become a global leader on the sustainable disclosing front because of Greenco rating. This would highly promote diligence within the industry to strive forward to environment safeguarding. It is different from the stress of adapting to sustainability which further has been reinforced along with the introduction of funds for sustainable development and various indices by Credit Rating Information Services of India. Ltd., Standards and Poor's, and Environmental Social Governance Indices.

LITERATURE REVIEW

The research of Ranga and Garg (2014) has reported a variety of ecological methods of recording transactions and events of a business concern and how it has evolved over the years to incorporate various environmental details required by the users. Tarun and Ramu (2018) defined green accounting as a five-stage process including identification of reporting parameters, identification of environmental parameters, defining the firm's current and noncurrent goal to sync them in coordination, developing appropriate environmental indicators safety and prevention standards, development of measurement standards for environmental indicators to divide them as qualitative and quantitative standards.

Deshwal (2015) determined the opinions regarding green accounting and reporting practices in 50 selected companies and concluded that environmental reporting in India is in a nascent stage and mass awareness is required in the respect to have a strict adherence to the environmental disclosure. Hussain et al. (2016) analyzed

the determinants of sustainable developmental and environmental reporting from the existing literature and indicated that carbon-related disclosures have increased significantly in the last 5 years but most of them are voluntary.

Kumar et al. (2017) found that Green Accounting and its reporting in India is in the developing stage both at the corporate level and at the national level. Magablihi (2017) studied the needs and methods of environmental accounting claiming that no significant differences could be seen in between the arithmetic averages of the possibility of measurement environmental cost accredited to a variable monthly income.

Agarwal and Kalpaja (2018) disclosed the significance of green accounting through a study which is done through the System of Environmental-Economic Accounting and referred to as SEEA. It concentrates on preventing the exhaustion of scanty inherited assets and forbidding ecological degeneration. The two purposes that sustainability accounting fulfills among which first is to upgrade the environment performance among the business and the other is to test the level of influence on the environmental system by the ventures of the organization. It could be beneficial for the government to record the operations of the enterprises towards nature by using environmental reports. Saxena (2020) studied the environmental practices followed in India and disclosed that to understand the role of the natural environment towards economic development, the economic system is an essential element.

Objective

To study the environmental disclosure practices of TCS and WIPRO as per GRI Index.

RESEARCH METHODOLOGY

The Study: The study is descriptive and

observational and deduced the environmental disclosure practices of TCS Ltd. and WIPRO Ltd. for five years.

The Sample: The sustainability reports of TCS Ltd. and WIPRO Ltd. for five consecutive years (FY 2015-16 to FY 2019-20) was taken.

Tools for Data Collection: The type of data used for analysis is of secondary type. The data was collected through the website of the company.

Tools for Data Analysis: The reports were studied and analyzed for their environmental accounting practices, numerical data were tabulated, and percentage statistical tools were used for analyzing the results. The analysis was presented graphically. Also, relevant annual reports of these companies available on the official websites were studied.

ANALYSIS AND FINDINGS

Table 1 shows the profile of Tata Consultancy Services which includes all the basic information about the financial performance and position of the company.

Environmental Policy at Tata Consultancy Services

The critical areas of the TCS Program are:

- **Decreasing Carbon Emission:** To attain an efficiency of power and increasing use of renewable sources of energy
- **Management of Water:** Water recycling and using water efficiently and adopting large scale rainwater harvesting
- **Management of Waste:** Three R's - Reduction in Waste Generation, Reusing of Waste and Recycling of Waste.

Sustainability of the Supply Chain

The green building standards are being incorporated by TCS as its office space of

more than 60 percent is constructed accordingly. It is equivalent to 21.8 million sq. ft. of working space. Out of the given space, 17.24 million sq. ft. is the office premises over the country. Being Energy efficient is always a critical factor for TCS when new space is leased. Mumbai and Indore's new offices of TCS are entirely green buildings. Even Gandhinagar and Bangalore leased office buildings are made following the green building norms.

Other Milestones achieved in FY 2019

The highest platinum rating has been awarded to the House of TCS which is addressed in Mumbai from the IGBC (Indian Green Building Council) underneath the "Existing Building Category". Tata Consultancy Services is also the first Information Technology company in the country for achieving the "ISO 50001:2011" EMS (Energy Management System) certification for its campus in the city of Pune.

The renewable energy use for activities has increased from 8 percent approximately to 10 percent in Tata Consultancy Services offices in previous years, leading it to even more close to achieving the 2020 target of 20 percent usage of renewable energy. In the current year, the company has also established 1.7 MW of "Rooftop Solar Systems" at four locations. The company also has plans on adding another 3MW of Solar Rooftop Systems in FY 2020. Installation of Solar Rooftop over its offices contributes to fulfilling about 5849 MWh of energy needs of the company.

TCS has repeatedly invented and promoted its Information centers power productivity by measures such as consolidation of data centers, solutions for rack cooling, management of air flow, UPS load optimization of UPS by modular UPS solutions, and central supervision; hence reducing the PUE (Power Utilization Efficiency) throughout twenty-three data

centers from 1.71 in the Financial Year 2018 to 1.67.

Tata Consultancy Services is also dedicated to using “0-Ozone Depleting Potential” (ODP) refrigerants in its every activity. Every upcoming new facility of TCS has “0—ODP refrigerants” based HVAC systems. The company has specific plans to phase out every ODP refrigerant gas and will be replaced with “0-ODP refrigerant gases” which is exactly in synchronization with the country-specific deadlines agreed upon in compliance with the Montreal Protocol.

Emissions due to Value Chain

TCS records and reports all indirect emissions as “Scope 3 Emissions”. These emissions caused due to the value chain are also known as indirect emissions as these are because of the points which are neither possessed nor checked by the TCS, although are necessary for its activities in the ambit of its value addition chain. By implementing an exhaustive frontier and applying “Scope 3 Emission Factors”, TCS has estimated that the value chain emissions have amounted to a total of 1.67 tons CO₂ emission per full-time employee, in the Financial Year “2019”. The business travel intrinsic for the consultancy business model and the everyday travel of the company staff was the largest contributor at 60 percent. For decreasing the amount of these emissions, the company has been allocating heavily for excellent quality interaction through video conferencing architecture for promoting seamless connectivity over its interior groups while promoting less in-person attendance for discussions and business meetings. The initiative taken by TCS has favored the company in reducing the CO₂ emissions generated by air traveling by air undertaken for business by more than fifty-nine percent across the baseline year.

The Performance Highlights of Tata Consultancy Services has been shown in

Table 2 mentioning the key performance indicators for the past five years.

Table 3 shows the profile of Wipro Limited which includes all the basic information about the financial performance and position of the company.

Environmental Policy at Wipro Limited

Compliance: WIPRO believes that environmental regulations by the government always have a very crucial part to enact in developing sustainability. The “Wipro Ltd.” has committed to accord by both paper as well as spirit along with the legal framework in every area that the company operates in.

Internal Footprint: Wipro shall be striving to reduce and minimize its internal operations’ ecological footprint. WIPRO’s approach is a four-dimensional viz. decrease in power consumption and GHGs emissions, an increment in the efficiency of water usage, management of waste in a sustainable manner and conservation and amplification of the campus’s biodiversity.

WIPRO aims to achieve this by a “3-pronged approach” which includes creating extensive programs for calculating and supervising its effect, installing the most feasible solution and technical resources and involving all its staff in uninterrupted green development at the workplace.

Integrating Business Strategies with Environmental Goals: WIPRO has concrete plans for integrating its internal programs of ecology into its principal strategies of the business and also correspond to its planning processes, setting of goals, measurements followed by continuous progress of reviewing.

Caring for its Customer: WIPRO shall interact with its customers to identify and provide suitable products, services and sustainable solutions. This will assist

customers in decreasing their carbon emissions.

Role of Stakeholders: The fact has also been recognized by Wipro that conquering environmental sustainability requires the collective efforts of all the stakeholders. A keystone of its sustainability process is also to collaborate with its maximum stakeholders on following common programs:

- (i) Operating along the supply channel to achieve a sustainable and responsible chain of supply.
- (ii) Collaborating with the government in the process to modify the environmental regulations and policies.
- (iii) Collaborating along with academic institutions, Non - Governmental Organizations, and traditional groups on bigger objectives for the sustainability of cities, regions and communities.

Transparency: The company is committed to being transparent about its purposes and progress on sustainability. Wipro can do this by several platforms for reporting and revealing information such as yearly reports of sustainability, Carbon disclosure report under CDP and providing on-demand information on requirements from its stakeholders.

Leadership's Commitment: The leadership at Wipro has always committed to the key demands of being an environmentally sustainable company. This is done by creating adequate provisions with the goal of investment of essential resources and by involving employees regularly for the realization of their common environmental vision.

Table 4 has presented the performance highlights of Wipro Limited by the key performance indicators for the past five years.

ENVIRONMENTAL PERFORMANCE INDICATORS

Out of many indicators, the following five indicators are studied for both the companies as information related to them was presented in the reports although variation was present concerning presentation.

- **Energy Consumption**
- **Water Consumption**
- **Waste Generation**
- **GHG emission**
- **Environmental expenditure/CSR Expenditure**

The above indicators are analyzed in Table 5 for TCS Ltd. for the years 2015 – 2019. According to Table 5, there is a mixed trend in almost all the above indicators and there is some change in the pattern of reporting. For energy consumption, there is a decreasing trend of 72.36 percent. The use of energy has decreased from 177 kWh / FTE / Month to 128 kWh / FTE / . For water consumption, only a 15 percent reduction was given and not the total quantity for the year 2015 and after that, the water consumption in total quantity used is provided hence it is sure that there is a decrease in consumption. For the other years, there is a mixed trend and for the last year of analysis i.e. 2019, the consumption of water is less than the previous year. For the waste generation instead of total waste produced per FTE annually is given, i.e., Per Full Time Employee which shows an increasing trend and waste generation has increased from 2015 to 2017 and then decreased. For the year 2019, 100 percent recycling of paper waste is mentioned but no information of other types of waste and their recycling is being provided. For GHG emission there is a decreasing trend of 68.04 percent from the year 2015, 1.69 t CO_2 e FTE / year to 1.15 t e FTE / year and the pattern is

consistent in all the years. For environmental expenditure, there is no clear information about how much amount is spent specifically for environmental issues therefore the amount spent on CSR activities by the firm is considered which shows an increasing trend, but the pattern is not seen to be consistent for the period of the study for the year 2015,2016,2017 the amount provided is in \$ (million) while for remaining years it's in rupees.

The above-mentioned indicators are analyzed in Table 6 for Wipro Ltd. for the years 2015 – 2019. The energy consumption shows a decreasing trend for five years from 423306 mn units to 915 million joules but in between the five years there could be seen a mixed trend for energy consumption, for the year 2019 there is an increase from the previous year, 2018 of 15 million joules. For water consumption, it shows a change in the pattern of reporting from 2015 to 2016. For waste generation, there is a mixed trend up to 2018 and for the year 2019, the pattern of reporting is changed from waste generated per employee per year to total waste generated during the year. GHG emissions show a decreasing trend for the last 4 years from 2016 to 2018 but are higher than 2018 to 2019. The pattern of reporting is found inconsistent in this respect. No information is mentioned specifically about environmental expenditure hence CSR expenditure figures are mentioned in the table which shows an increasing trend the pattern is changed in the five years from million to crore and again to million.

DISCUSSION

In this paper, an attempt is made to understand green accounting which is relatively a new concept in India and a comparison is made between top two information technology companies, although policies for disclosing the information is different in both the company. The research has studied the environmental

measures and indicators embraced by both the companies and found that both the companies are active in environmental disclosure but there is a lack of inconsistency in reporting. The results are similar to the study conducted by Bullard and Raju (2020) on BPCL and ONGC which disclosed natural accounting and bookkeeping practices in the energy sector and found that there is an absence of rules to disclose information about the environment-related information and both the companies follow diverse policy in respect to the same item. Deswal (2015) also found that there are significant differences between green accounting practices for manufacturing and non – manufacturing firms and there is a lack of strict rules for ensuring compliances of these practices. The study also finds similarities with the study of Chavarkar (2020) indicating that there is a lack of a standard format for reporting and requires standard guidelines.

CONCLUSION

The two companies Wipro limited and TCS limited are globally listed as “A” grade by an international non-profit GRI Reporting standards, which helps companies of the world in disclosing the environmental impact they cause. Although, the disclosure practices are not comparable among the two, despite being operating in the same country as well as the industry which makes comparative study difficult. Many such examples can be quoted which show the disparity. This indicates that green accounting is still in the primitive stage in India and there is no definite structure for reporting the environmental performance. After studying sustainability reports of both the companies it can be concluded that the efforts and initiatives taken by the corporates these days in respect to climate change and social upliftment is commendable. Tata Consultancy Services has been trying to achieve zero waste levels. Wipro Limited has

also provided environment indicator valuation for all the above items, which is a great step for considering environmental costs into the financial statements. Both the companies have provided details about various environmental indicators as per the GRI Index. However, in order to compare the data it needs to be adjusted as standardized guidelines are absent for the same.

LIMITATIONS OF THE STUDY AND SUGGESTIONS

One of the critical limitations of the study is that it is based on secondary data collection. These findings of the study cannot be generalized for the whole IT industry as the two companies are not the true representatives of the whole population. The lack of standards in reporting caused the analysis to be uneven at many points during the research and acted as a major obstacle. India needs to formulate a standard set of guidelines and a common framework for environmental disclosures. The information is necessary for a standardized format so that necessary awareness can be created as well as steps could be taken by various stakeholders towards improvement in a measure of protection of the environment. It is also suggested that a set of standard tools should be developed so that the environmental cost of actions of companies can be evaluated in monetary terms and becomes a part of the financial statement of a specific company.

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ANNEXURES

Table 1: Profile of Tata Consultancy Services

Type	Public Limited
Traded as	NSE: TCS Included in Nifty 50 constituent
Share price	Rs. 3084
Industry	IT Services & Consulting
Headquarter	Mumbai
Parent organization	Tata sons
Key person	CEO: Rajesh Gopinath
Revenue	Rs. 1.62 lakh crore
Income from Operating Activities	Rs. 376 billion
Total Income	Rs. 21 lakh Crore
Aggregate Assets	Rs. 32,340 crores
Owner	Shareholders
Number of employees	4,17,929
Founder	F. C. Kohli, J.R. D Tata, Tata Sons
Website	https://www.tcs.com/

Table 2: Performance Highlights of Tata Consultancy Services
(All Figures are in million)

Year	2015- 2016	2016- 2017	2017- 2018	2018 – 2019	2019- 2020
Sales Turnover	1,08,646	1,17,966	1,23,104	1,46,463	156,949
Profit before tax	31,840	34,513	34,092	41,563	42,248
Profit after tax	24,270	26,289	25,826	31,472	32,340
Earnings Per share	111.87	133.41	134.19	83.05	86.19
Source: Company's Annual Report					

Table 3: Profile of Wipro Limited

Type	Public Limited
Traded as	NSE: WIPRO Included in Nifty 50 constituent
Share price	Rs. 410.90
Industry	IT Services & Consulting
Headquarter	Bengaluru
Parent	WIPRO limited

organization	
Key person	CEO: Thierry Delaporte
Total assets	97,482 Million
Owner	Azim Premji (73.85%)
Number of employees	1,75,000
Founder	M.H. HashamPremji
Website	https://www.wipro.com/

Table 4: Performance Highlights of WIPRO Limited
(All Figures are in million)

Year	2015- 2016	2016- 2017	2017- 2018	2018 – 2019	2019- 2020
Sales Turnover	516,307	554,179	546,359	589,060	613,401
PBT (Profit Before Tax)	114,933	110,356	102,474	115,415	122,512
PAT (Profit After Tax)	89,075	84,895	80,081	90,031	97,218
EPS (Earnings Per Share)	13.60	13.11	12.64	14.99	16.67
Source: Company's Annual Report					

Table 5: Comparison of Environmental Indicators for TCS (2015 – 2019)

Environmental Indicators	2015	2016	2017	2018	2019
Energy consumption	177 kwh / FTE/ Month	162 kwh/ FTE/ Month	155kwh/ FTE/ Month	145 kwh/ FTE/ Month	128kwh/FTE/M onth
Water consumption	15% reduction in per capita consumption	3.9 million KL	4.04 million KL	4 million KL	3.9 million KL
Waste Consumption	15.2 kg/FTE/ annum	21.7 kg/FTE/annum of waste.	22.9 kg/FTE/annum of waste	21.41 kg/FTE/annum of waste	100% recycling of paper waste Other waste no information
GHG emission	1.69 t CO ₂ e FTE/year	1.53t CO ₂ e FTE/year	1.42t CO ₂ e FTE/year	1.31t CO ₂ e FTE/year	1.15t CO ₂ e FTE/Year
Environmental/ CSR expenditure	\$171 million	\$65 million	Rs. 400 crores	Rs. 600 crores	Rs. 602 crores

Source: Compiled from Company Reports

**Table 6: Comparison of Environmental Indicators for Wipro Limited
(2015 – 2019)**

Environmental Indicators	2015	2016	2017	2018	2019
Energy consumption	423306 mn units	315 Million Units	1344.3 Million joules	900.8 Million joules	915.3 million M joules,
Water Consumption	6670382 m ₃	1,119 liters per employee per month	991 liters per employee per month	951 liters per employee per month	930 liters per employee per month
Waste generation	3.26 kg per employee per annum	1.55 kg per employee per annum	2.02kg per employee per annum	2.66kg per employee per month	5057 tons
GHG emission	211,986 MT CO ₂ e	228,526 MT CO ₂ e	189,785 MT CO ₂ e	1,17,290 MT CO ₂ e	1,37,995 tons CO ₂ e
Environmental/CSR expenditure	Rs. 53.17 million	11,433 million	Rs. 176.1 crore	185.3 crores	Rs. 1,818 Mn.

Source: Compiled from Company Reports

INNOVATIVENESS AMONG STUDENTS: A COMPARATIVE STUDY

Manya Yadav, Charvi Makhija, Preeti Chawla, Shakuntla Jain

India is one of the developing nations in the field of education. Now-a-days the prospective students from various areas visit the progressive cities for higher education. Because of this, now the higher education institutes have students of higher combination of gender, experience, regional languages and different background. A teacher has to work hard on the curriculum and innovative teaching approaches to reach all the students having demographic differences under the same cap. At the same time, the student has to grab the innovative techniques for the betterment of his/her career further. This research paper focuses to explore the innovativeness among students in Delhi NCR during their education. Primary data were filled by male and female students of higher education institutes in Delhi NCR. T-Test failed to establish any significant difference between male and female students of higher education management institutes.

Keywords: *Innovativeness, Education, Teaching Methods, Higher Education Institutes.*

INTRODUCTION

Innovativeness refers to the degree to which an individual tends to have a high preference for novel and original ideas (McClelland, 1965). Higher education institutions have become the driving force of developing country's growth and development after globalization. The higher education institutes develop and inculcate best innovative practices for boosting innovation culture among the young generation. Now-a-days many educational hubs spend lots of capital on research activities, research funding, online teaching and best innovative practices for improving the reputation, ranking, students' intake, external funding, student marketability and innovation culture. Higher Education Institutions are the engines of countries' growth because of the innovation that they nurture (Crosling et al., 2015). Highly innovative universities nurture not only technical abilities and expertise but also promote a sense of sharing and togetherness. Universities are producers of innovation, creating novel and improved

products and services, and supplying training, expertise and human resources viz., potential innovators to organizations and societies (Al-Husseini and Elbeltagi, 2016).

Innovation resembles transformation, the natural process that keeps species evolving so they can better compete for survival (Hoffman and Holzhtuter, 2012). Innovation, regarded as an instrument of necessary and positive change. Any human activity (e.g. industrial, business or educational) needs constant innovation to remain sustainable. The term innovation culture has been studied in the area of management but still very few higher education institutes follow innovation. The concept of innovation in education is under research. Innovation culture shaped the human behavior and is influenced by surroundings and past experiences. Higher education institutions are makers of innovation, producing new and modified products and services and providing expertise, training and developing human resources to corporate. Innovation is pivotal tool in the organization and becoming popular for significant performances.

* Student, Bal Bharati Public School, New Delhi, Delhi.

** Student, Prestige Public School, Indore.

*** Assistant Professor, TheNorthCap University, Gurugram.

**** Visiting Faculty, Prestige Institute of Management and Research, Indore.

Individual's innovation is considered as a behaviour that suggests new ways of getting things done and having full freedom in doing one's own tasks and responsibilities. Innovation comprises many exceptional stages: vision generation, research design and development, production, marketing and sales (Dooley and O'Sullivan, 2001; Knox, 2002; Poolton and Ismail, 2000; Rothwell, 1994). New developing innovations are small improvements made to improve and extend the processes used, goods and services. But, this contradiction is not at all incompatible with properly-organized reality due to the fact change is the only constant (Katila, 2002).

Innovativeness refers to a person's ability and tendency to have creative thinking, innovate new and useful ideas, form new markets, as well as initiating new things (Gupta et al., 2004; Okudan and Rzasa, 2006). An individual who possesses novel solutions and creative thinking for entrepreneurship needs to think innovatively in improving their performance (Chen, 2007). In the business setting, innovative leaders have creative thinking and present new and useful ideas, form new markets, and initiate new products and services (Gupta et al., 2004; Wang et al., 2013). There is ominous requirement to evaluate student's innovativeness, innovation culture, approachability to new thoughts and execution of innovation ideas. Therefore, the study aims to find the innovativeness among students of higher education institutions as they are the future pillars of society.

REVIEW OF LITERATURE

Martin et al. (2017) have studied the main factors influencing behavior of university going students towards innovation. They collected the data from 78 students belonging to different disciplines like psychology, management, fine arts and education. The students filled the questionnaires and descriptive, co-relational and multiple

regression analysis was carried out to analyze the data. The authors found that the students of psychology developed higher level of innovation in comparison to other streams. Overall study showed that innovation behaviors were positively and directly related with autonomy and cognitive demands. Findings of the current research paper showed that difference in gender and age is not directly related with innovative behavior of undergraduate students.

Roffeei et al. (2017) checked innovativeness in behaviors of college students with the help of a model named innovation culture. The authors studied the behavior of 1,008 students from five different universities with the help of questionnaire and structural modeling analysis. They concluded that three factors play important role in determining successful innovative behaviors viz., effective communication, self-efficacy and climate for innovation.

Serdyukov (2017) studied types and hurdles of the innovation in the area of education in USA. They surveyed literature and found that USA's higher education system should follow effective innovation methods to get high-quality learning results. It should emphasize on educational innovation through continuous improvement on teaching, learning theory and practice that must impact the learner, parents, community, society and culture. Author recommended technology applications, practical implications and social implications for raising the quality and scale of innovation in education. It was further suggested to apply a multidimensional method to improve the education system that gives self-efficacy, critical thinking, creativity and innovative culture to the learners.

Naz and Murad (2017) conducted a survey on teachers teaching in higher education institutes in Pakistan. They explored that all the students differ in age, gender, exposure, language and family norms, but while

teaching in the same class every faculty has to be inclined towards innovative teaching practices and lesson plan methods which increases the urge of the students to study more. They applied statistics and showed that in private education institutions, innovative teaching is preferred rather than government institutions and universities. Authors concluded that innovative teaching directly and positively impact the performance of students.

Ovbiagbonhia (2019) studied the students' perceived value of both firstly towards the innovative environment created by school and secondly the students own insights towards innovation competence. They surveyed the Applied Science students of 8 universities of Netherlands. On the basis of multiple regression analysis, the study showed that the higher education institutes provide a supportive learning environment at very partial level. On the other hand, students own insights towards innovative competence are high. Study suggested that higher education institutes must inculcate the teaching sessions on innovation competence.

Most of the research has focused on university students' innovativeness, particularly in the context of entrepreneurship. Innovativeness, which is often linked to entrepreneurial potential (Mueller and Thomas 2010), may be seen as a psychological attribute implying a 'willingness to adapt' (Hurt et al., 1977). Individual invention is more than merely the ability to think creatively, even though research in this area has produced intriguing and important results (Mueller and Thomas, 2010). It may also be defined as a behaviour that entails the deliberate introduction and implementation of new ideas, methods, goods and procedures into a work that are intended to benefit it (West and Farr, 1990). Previous research on individual innovation from a behavioural perspective has found

that some job design characteristics, such as autonomy can foster innovation, and that workers can use it as a mode of adjustment to work transitions (Van Maanen and Schein, 1979) or as an active coping strategy to manage a high volume of job demands (Anderson et al., 2014). Although innovation may not always result in favourable outcomes, research has shown that it offers a variety of advantages, including greater psychological well-being (Bunce and West, 1994; De Jong, 2007; Munton and West, 1995).

Individuals can develop new methods of doing things to cope with job expectations and so feels lower stress. (De Jong and Janssen, 2005). There is also empirical research that shows the link between individual invention and happiness (Bunce and West, 1994; Munton and West, 1995). Along such lines, we may think of individual invention as an active coping mechanism that can help undergraduates cope with the negative effects of demands, such as cognitive demands, on their psychological discomfort, resulting in enhanced psychological well-being. It is essential to consider that the psychological well-being of students is not trivial. It has been proposed that it is necessary not just to satisfy academic objectives, but also to help students adjust to university life (Bowman, 2010). Autonomy and cognitive demands are expected to encourage undergraduates to innovate. It was investigated that whether autonomy and cognitive demands have a combined influence on innovative behaviour, using the Job Characteristics model (Bakker and Demerouti, 2007). Bitzer et al. (2014) and Jekel et al. (2015) connected economic innovation with a technical or pragmatic interest in learning and teaching. People with high level of innovativeness always gives positive supports to new technologies and risk associated with it (Yi et al., 2006). The meaning of technological innovativeness is being more enthusiastic about using new data, new technologies and tries to

experiment thing with newness (Agarwal and Prasad, 1998). There have been various empirical studies on innovativeness and the outcomes are often inconsistent. Therefore, this study was conducted to compare the innovativeness of students at management institutes based on gender.

RESEARCH METHODOLOGY

The Study: The study is exploratory in nature and studies the innovativeness among students in Delhi NCR.

The Sample: The data was collected from 200 male and female students and aims to compare innovativeness among male and female students of universities in Delhi NCR.

Tools Data Collection: As this research has a quantitative base so questionnaire used in this research was close ended questionnaire. Six items of Jackson Personality Inventory Scale (Jackson, 1976), were used with small changes. Five-point Likert scale used in questionnaires as a part of primary study and various journals, magazines and e-newspapers used for secondary data.

Tools for Data Analysis:

Independent sample test and mean has been used to compare innovativeness of students. Statistical package of the Social Science (SPSS) used for data compilation.

ITEM TOTAL CORRELATION

Questionnaire adopted in this study consisted of six questions. Item total correlation was used in order to check the normality of the sample. As the sample size was 400, item with correlation value less than 0.1948 should be dropped. All the items in the study had correlation values more than 0.1948 thus; no item was dropped from the questionnaire.

RELIABILITY MEASURES

Reliability of the measures was assessed with the use of Cronbach's alpha on all the six

items. Cronbach's alpha is designed as a measure of internal consistency to know whether all the items within the instrument measure the same thing. It allows us to measure the reliability of different variables. It consists of estimates of how much variation in scores of different variables is attributable to chance or random errors (Selltiz et al., 1976). As a general rule, a coefficient greater than or equal to 0.7 is considered acceptable and a good indication of construct reliability (Nunnally, 1978). The Cronbach's alpha for the questionnaire is (0.751) shown in table 1. Hence, it was found reliable and used for analysis.

OBJECTIVE

To compare the Innovativeness between male and female students of management institutes in Delhi NCR.

HYPOTHESIS

H_{01} : There is no significant difference between Innovativeness of male and female students of management institutes in Delhi NCR.

RESULTS AND DISCUSSION

Result of Independent Sample t-Test

Table 2 shows the results of independent sample t-Test used to access the difference in the innovativeness between male and female management students. The F value is 1.608 and significance value is 0.205 which is not less than 0.05 (95 percent confidence Interval), which indicates that there is no significant difference in the Innovativeness with respect to gender in Institutes of Delhi NCR. Therefore, we accepted null hypothesis and can conclude that no difference came in the Innovativeness with respect to gender in students. Male students' value of mean comes to 3.65 in comparison to 3.50 of female students which show that male and female students in management institutes of Delhi NCR do not differ in terms of Innovativeness.

This result supports the findings of some studies that suggest in the area of entrepreneurship, the behavior of both male and female university students are same with not much difference (Ovbiagbonhia et al., 2019; Arora and Jain, 2019 and 2020). Gryl (2013) designated the term innovation and shared the series of ideas using innovativeness. Drucker (2002) also supported the concept of innovativeness in the area of entrepreneurship. Rogers (2003) in his book recommended that the different categories of adopters as innovators. Naz and Murad (2017) came to conclusion that an innovative teaching method directly impacts the performance of students in terms of newness in the work.

CONCLUSION

The aim of the study was to compare the Innovativeness between male and female students of management institutes in Delhi NCR. The t-Test failed to establish any significant difference between male and female students of these management institutes. It is suggested that institutes should develop programs that enable students of both the genders to innovate their careers in different areas. The results of this study also have implications for educationalists looking to gain a better understanding of students' psychosomatic characteristics and innovativeness. Such studies will offer insight into how initiatives can be built in order to promote unique qualities that can drive people to be more innovative. Students are going to be the young employees or budding entrepreneurs. Hence, they are becoming the future innovators in the labor market. So, it is suggested that the higher management institutes should start incorporating values, ethics and innovation behavior. Innovation is the required key for the success of students who are going to be the future master minds.

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ANNEXURES

Table 1: Cronbach's Alpha

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.768	.766	6

Table 2: Independent Samples Test

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	1.608	.205	1.805	398	.072	.15261	.08457	-.01364	.31886
INV Equal variances not assumed			1.792	374.331	.074	.15261	.08515	-.01483	.32005

KNOWLEDGE MANAGEMENT: A STUDY OF SELECTED BANKS

*Rajni, **Preeti Chawla

Today's global environment is a stiff competitive environment wherein only those organizations can sustain which have some policies and practices to attract and retain the employee who helps the organization in combating competition and helps in innovation and ultimate development. The special knowledgeable employee is the demand of time as they possess specific skills and learning which are essential for the functioning of businesses. Utilization and management of those skills are necessary and thus the present study is studying the use and implementation of Knowledge Management (KM) policies and programs in private sector banks of Haryana. A self-structured questionnaire is used to gather data from representatives i.e. employees of selected banks. The use of different statistical tests is made to gather information about employees and the corresponding impact of the use of knowledge management programs on the working and functioning of selected banks. The results of the study help banks to have an idea regarding the type of KM to be adopted, the efficacy of their existing programs and lastly the impact of KM on behavior, performance of employees and banks.

Keywords: Knowledge Management (KM), Competition, Banks, Employees.

INTRODUCTION

Knowledge management is the investigation of using key human resources intending to improve business goodwill and to make it conceivable for the benefit of organizations and associations toward the attainment of pre-set targets. Every little thing was done to enroll holds, create, award and motivate people to play out a role from the mass of knowledge management equivalent to strategic workforce planning.

According to Derek Stockley, "KM involves individual and organizational development in response to a changing and complex operating environment. It includes creation, maintenance, and supportive, people-oriented organizational culture".

According to Mc Kinsey's "KM is the science of using strategic human resource planning to improve business value and to make it possible for companies and organizations to reach their goals". According to Jason Lauritsen "knowledge can be anything that

predisposes an individual to succeed in a position or organization".

The term Knowledge Management (KM) is individually worn to portray sound and indispensable human/employees' activities with the goals of drawing in and holding the best individuals, who are required to meet the immediate need of an enterprise. Associations are describing that individuals and the talent of these individuals will build-up for the accomplishment of these associations. So, Knowledge Management is management's main priority. The present organizations face better worldwide rivalry, moving business sectors, and unanticipated competition. No big surprise they are judgmental in attracting, selecting, and retaining talented laborers. "KM, also recognized as human capital management, is the process of recruiting, assessing, managing, developing and maintaining the organization's most important resource" (Davenport and Prusak, 2000).

*Assistant Professor, Department of Commerce, Kalindi College, University of Delhi.

** Assistant Professor, School of Management, The NorthCap University, Gurugram.

KM is the process that helps in identifying the talent of employees and utilize it efficiently and retaining the same to fight the competition in the industry. The talent of employees gives a competitive advantage to an organization (Alavi and Leidner, 2001).

KM inherits the development of both employees and enterprise itself in a dynamic and persuasive business scenario. It focuses on developing and maintaining organizational culture wherein employees develop themselves for the development of the organization (Cohen, 1991).

Essential Elements of Exceptionally Compelling KM Measure

- Crystalline of the prompt and future business procedures of an association.
- Identification of the deviations in the knowledge required and the knowledge accessible to drive an enterprise's accomplishment.
- An optimal KM plan is intended to fill the knowledge gaps. It is to be in line with business objectives, mission and vision.
- Optimal recruitment and endorsement choices.
- Integration of employee's and group objectives to business objectives, thus ensure the smooth functioning of business and ultimate increase in the efficiency of workers which result in better performance of a business.
- Creating and maintaining the required knowledgeable workforce to meet the current and future needs of an enterprise.
- Consideration of not only of the knowledge management procedures but also on the components needed for optimal implementation of same to achieve firms' goals.

- Organization's collision and employees' effectiveness dimension at and after the adaptation.

Business enterprises have been discussing the interconnection between extraordinary representatives and better firm performances for quite a long time. In the nutshell, the question is- "why some organizations oversee the importance of having and maintaining the required pool of knowledgeable workforce?"

Out of the numerous drivers empowering this highlight, some are:

- The term 'Knowledge Management' is positively related to 'firm's performance'.
- A talent is a tool of value addition.
- Today's business environment is quite dynamic and complex.
- Boards and monetary business sectors are hoping for more.
- There is also a drastic change in opportunities for employees.
- Personnel enumerations are in progress.

Strategic importance of Knowledge Management

- Concern to the income, advancement and associations viability.
- Cost of lost freedom and the substitution cost of losing basic ability should be dissected.
- Result of having wrong supervisors on talented personnel.
- The investment made in knowledge management processes should not be for a small span.
- Knowledge management is not a one-time activity; it is a holistic approach towards talent management.

Best Knowledge Management Practices in Current Time

All organizations strive hard to achieve the predetermined objectives in the planned manner and thus with the talent war too. Making enhancing work environment encounters- pull in and hold the top talent which is required. In this way, it is significant for associations to maintain and retain the required and available personnel as the primary goal and recruiting the individuals on the second spot.

Need for Knowledge Management

These days, HR puts efforts to find, embrace, grasp, and understand labor. Now the question arises that what is the foremost requirement for the maintenance of an ideal KM environment in the workplace. The answer to the question is- "creation and maintenance of a pool of knowledgeable workforce who is capable of carrying out the various tasks assigned to them for the successful attainment of business goals. Firms initiate actions to attract, retain and maintain the knowledge workers and even tries to build their personal proprietor's marque. These trademarks work's dynamically and imparts the worth they make for their clients. Moreover, representatives recognize themselves with specific firms' assignments particularly in the light of anticipated work lack.

Various associations deliberately do an indispensable study on the present HR measures. They assure that the best methodology should come officially to deal with their HR's ability. Now associations are embracing a knowledge management tacticon regular basis and are zeroing in on co-organizing and coordinating different angles, for example, hiring, retaining, workforce effectivity, direction and "top expected worker" advancement, execution administration, employee arrangements and inculcation of human values. The authors

and scholars gained from the current investigation that, there is a gigantic change in HR in the previous years. The explanations are the adjustments in innovation and the worldwide monetary climate. Even though associations know about the requirement for the human ability they were dismissing it every one of these years without giving a complete standpoint.

Advantages of Knowledge Management

- Optimal and required knowledgeable employee on specific work.
- Keeping the required personnel in the organization.
- A recommended employee can be recruited.
- Comprehend the need of employees in a more fairway.
- Fair and more concrete proficient improvement choices.

The KM measures are mystifying and extremely rigid. The organizations put lots of effort into placing the flawless worker on the exact post. KM strategies for fast-growing companies i.e., keep the bar high, promote from within, mind the middle, create reasonable employing targets and adhere to the same, hire to dedicate recruiter, cultivate culture, let go, create checks and balances. KM assists the association with satisfying its vision with the assistance of proficient and promising capable individuals. Likewise, help the association to create a knowledge repository which has the inclusion of efficient and knowledgeable employee who not only has the competency of doing current tasks allotted to them but has the qualities to meet future exigencies. KM makes the business enterprises more serious about reforms required as per the needs of time and thus prepare for future opportunities and also helps in computerizing the center cycles and catch

information for settling on better choices. KM helps the organization and employees in many ways:

- Promotes employees' long-haul relationship with the association.
- Diligent and outrageous efficiency of the workforce.
- Makes the workers spurred which helps in vocation advancement.
- Motivates the representatives to relish the work assigned and achieve work contentment.
- Helpful in the recruitment of talented personnel on different job position.
- Helpful in maintaining the best match between job and specific employee.
- Ensures procurement and retention of a required pool of talented employees thus, lower down the cost of recruitment and selection processes.
- Effective use of available person-hours.
- Cordial relations between and among workers facilitate in grasping fair and clear interpretation related to them.
- Facilitates the creation of figureheads and motivators for the future.
- Aiding in assessing worker's status to take up new jobs.
- Enhance individual as well as bunch efficiency and ability to contend viably in an intricate and dynamic climate to accomplish feasible development.

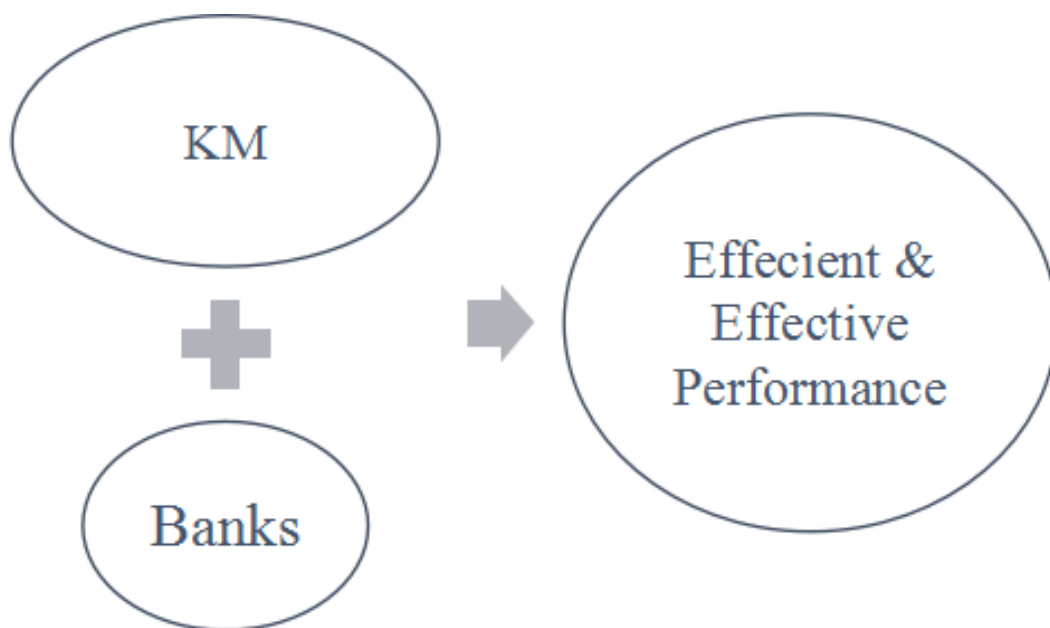


Figure 1: Relationship of KM and Performance of Banks

Source: Conceptualized by Authors based on Literature Review

Banking Sector

In a developing economy, financial institution plays a pivotal role in creating, assembling and distribution of capital. Banks are among such institutes that have the vested aim of mobilizing savings and capital for the economic development of the country. They encourage individuals to save from their hard-earned money, deposit that with a bank and the bank accumulates these small savings and build up a pool of finance that they distribute into different needed sectors like business houses and industrial establishments and accelerate the process of further earnings and capital in the economy. Not only small savings are part of the resource, but the interest paid on debts and loans also form a considerable part of the holdings of banks. RBI is the premier body that regulates, governs and even directs the functioning of different public sector and private sector banks in the Indian economy. As today's era is the global era, where not only the banking sector but the economy needs to signify its synergies to out beat the competitions around the globe. Thus, to be competitive and maintaining sustainability banking sector is required to update and comprehend the most important assets of theirs are i.e., knowledge available with them and knowledge procured from outside so that they can contribute to the creation/mobilization of required capital for economic development.

REVIEW OF LITERATURE

Phillips (2008) defines a diagram technique that enterprises can use to engage and hold the knowledge to beat the competitors and found that knowledge is characterized as a capacity or quality controlled by an individual in a specific field or movement. In business, it is perceived as the only valid and economical alternate which is the inherited knowledge of existing employees to have continuity and progress in a particular business. But Collings and Mellahi

(2009) attempt to comprehend ladies' vocations better to help associations make changes to maintain female retention in the business unit. In the study, the researchers talk about the initiatives and arrangements that a business can take recruit and hold the more required females in the business entity. Paper tracked down that out of the surveyed women in general, eight of the ladies communicated a requirement for credibility in their vocations, and just two referenced a craving for challenges or different dares in their allotted positions.

Additionally, Foss et al., (2009) suggested a KM proposal for overseeing vulnerability in manufacturing undertakings. Manufacturing endeavors should utilize both implied knowledge about variability and buffering and hosing strategies, all the while with the expressed knowledge that is created by the smart specialist, for overseeing inconsistencies. The plan of the knowledge management approach empowers simple coordination with material prerequisites arranging, producing asset arranging, or undertaking asset arranging frameworks and supplements with the appropriation of trend-setting innovation.

Tansley (2011) seeks to underline that age Yhas explicit qualities, requirements and assumptions and that association must comprehend these when hoping to draw in and support them and backing in their turn of events. The research says that it's not about making them responsible for any loss or mistake but it is about motivating them so they can convey the matter of future and increase the efficiency of employees within the organization. Additionally, Vaiman et al. (2012) triesto present the center segment 'imagination and advancement in the firm administrative predecessors and consequences for workers' and found that the freeness and liberal environment which is base for imagination and innovation by the workers is the responsibility of higher

officials of the enterprise. The personal behavior, attitude and way of handling tasks were not only based on their creativity and innovativeness but also the subordinates and other team members associated with them directly and indirectly. Hence, Suzanne (2013) recommends the significance of possibility and of enterprises' creating knowledge frameworks, which reflect specific business goals with regards to the strategic limitations. This paper focuses on four aspects:

- Conceptual and intellectual boundaries of KM.
- KM issues in a different national context.
- Interpretation of KM in various associations and enterprises.
- Areas of practices in KM.

This study derives their conceptualizations and details their theories dependent on somewhere clashing presumptions found in each career and KM collection of writing. Findings are based on the layout of a complete plan for future exploration regions in KM. Yvonne (2016) analysed the various qualities like equality, the power of human resources v/s power of academics, and transparency v/s autonomy. He defined the term talent based on the recruitment context.

The present study examined the meaning of 'knowledge' which the head of an accounting department has in his mind while considering the qualities of individual workers together with methodology whether it centers around an individual's characteristics or capabilities, regardless of whether an employee needs to have such abilities at the time of initial hiring or they can be recruited with somewhat fewer qualities which they can acquire during their progression in the organizations. Meyer and Xin (2017) examined the various impacts of open/shut advancement on employee's

presentation. The authors in the study, demonstrated that open development was more persuasive on the working of workers than shut advancement. The research shows that an act of open development and its job in pulling in knowledge to the business units, to help workers' presentation on different assigned jobs and encouragement towards the development of industrial unit is crucial for continuing sustainability in a hyper-competitive scenario of the present context. Additionally, Bostjancic and Slana (2018) supported the viewpoint on the practices and impacts of Knowledge Management in a global association. The study embraces an auto ethnographic methodology that considers the events and circumstances which were faced by the primary researcher during her work in a worldwide association. This methodology adds to the available writing/research by giving an insider knowledge viewpoint that hitherto has not been introduced in KM research yet. Thus, Cappelli and Tavis (2019) investigated the promoting thought of division in the HR setting and how this reasoning can be applied to ability and award programs. The researchers elaborated that segmentation could be used as a guiding practice towards the finalization of efficiency and appraisal initiatives, yet it inherits the risk of a probable downtrend in enthusiasm and motivation to take challenging endeavors on the part of an employee. However, Paisey and Paisey (2019) target proposing an examination plan in the crossing point of vital Supply Chain Management and logistics (SCML) of worldwide associations from the point of view of International Human Resource Management (IHRM) and found that KM is critical to overseeing SCML optimally in the present era of global competition. In addition to this, Rajain and Rathee (2019) surveyed the employees working in private banks of Haryana based on talent management. They concluded that "the talent management practices are very

useful for workers of an organization. Talent management practice is essential to achieve goals effectively. Employees are satisfied with the policies and benefits used by private banks. Talent management practices help employees to achieve their goals. Talent management practices also focus on the technological solution. Talent management practices give various benefits to enhance performance". Moreover, Kwan et al. (2012) gives a reasonable structure that exhibits the component through which KM prompts the several elements of worker's execution of different tasks assigned to them. The research has added to the conceptualization of KM and representative's execution of assigned tasks, which will assist in considering certain hypotheses and research practices in all fields that consider the efficient and effective performance of all individuals employed in the organization. There are other studies too that show that execution of KM framework prompts worker's efficiency and yields a mediator connection among KM and worker execution of allotted work on different positions.

OBJECTIVES OF THE STUDY

- To study the knowledge management policies utilized by selected banks.
- To find out the awareness of employees towards knowledge management policies.

RESEARCH METHODOLOGY

The Study: The study is descriptive cum exploratory in nature.

The Sample: Convenient sampling was used for data collection. 300 employees of selected banks located in the different areas of Delhi (ICICI, HDFC, YES Bank, AXIS Bank and IndusInd Bank) were selected in the research.

Tools for Data Collection: Questionnaire-based on a five-point Likert scale was used

for data collection. Some dichotomous questions related to demographics of respondents, awareness of the concept of knowledge management and supervisors' efforts for initiating KM programs were included in the questionnaire. In addition to this, questionnaire consisted of 16 questions related to friendliness, implementation and impact of knowledge management programs on employees and the response of employee to such programs. 16 more questions were included on programs and policies adopted, modified, and implemented to make a better knowledge management environment in the selected banks.

Tools for Data Analysis: Descriptive Statistics (Frequency, Mean and Std. Deviation) was used for data analysis. Data was analyzed with the help of SPSS.

ANALYSIS AND INTERPRETATION OF DATA

The initiation of the process of analysis is made with analyzing the demographic variables related to respondents of the study as demographic data gives out the idea of whether the respondents of the study are representative of the population under consideration. As the study is based on the banking sector, hence five private banks i.e., ICICI, HDFC, YES Bank, AXIS Bank and IndusInd Bank are considered for data collection.

Demographic Frequency

1. Distribution of Banks

Table 1 reveals that the number of responses received from ICICI is 35 percent, HDFC 21 percent, YES 19 percent from AXIS 17 percent and 8 percent is from IndusInd bank. The highest number of responses was obtained from ICICI and least from IndusInd Bank.

2. Gender

The gender of an employee plays a very important role in concerning and taking the

things related to the job and other societal values and beliefs which affect various behavioral traits. Thus, the study of demographic details starts with gender. Males and females have different perspectives about the same phenomenon thus, study of this component is essential.

Table 2 of gender shows the variation of gender believing KM practices. It was found that a majority of the sample population was male who believed in KM program.

3. Age

The age of an individual is a very important construct in framing the understanding and behaving on certain aspects and the mature behavior of an employee is a prerequisite for taking and implementing the right policies and decisions. Thus, the second component is the age of the employee under consideration. Table 3 is related to age and shows the variation of age believing the KM program. From the Table, it is interpreted that the employees in the age group between 25-35 years are more aware towards KM program.

4. Do you have any idea about Knowledge Management?

To understand the implementation level of KM structure in the business unit, employees were approached and were asked to have any idea of KM processes in the organization. Table 4 shows the employees' awareness of knowledge management practices in business entities. It shows the variation in number of employees heard about KM practices. It was found that a majority out of selected bank employees were familiar with the term KM.

5. Does your organization follow Knowledge Management in its Processes and functioning?

The next question asked from the respondents was related to the level of

knowledge management practices applied and used in the organization to foster activities and performances of employees. Table 5 shows the subtleties of the reactions received in this regard from employees. The Table is showing the variations in KM practices followed in the organization. It was found that most organizations followed KM practices which are shown by the response rate of 210 in the selected bank's population.

6. Did your supervisor/management arranged any Knowledge Management program for you in the organization?

In continuation, the next question was based on assessing the implementation of knowledge management practices in the organizations. Employees were asked whether their management/supervisors arranged any KM awareness programs for them in the institution (during the last 5 years). Table 6 gives out the result of the statement. It is showing the variation in KM programs introduced by management/supervisor. It was found that most supervisors in organizations introduced the KM programs to employees.

7. Descriptive Statistics

Use of descriptive statistics is made to find out the friendliness, implementation and impact of Knowledge Management programs on employees and the response of employees to such programs.

RESEARCH FINDINGS AND DISCUSSION

The findings of the primary research are as follows:

- The mean value for the *participative environment is created due to the implementation of KM Processes* is 4.63 and the standard deviation is 0.812.
- The mean value for *knowledge management helps people to set and achieve*

- meaningful goals* is 4.14 and the standard deviation is 0.719.
- The mean value for *employee's performance improves after the adoption of knowledge management* is 4.11 and the standard deviation is 0.894.
 - The mean value for *knowledge management activities that create concentration on work* is 4.10 and the standard deviation is 0.871.
 - The mean value for the *knowledge management process focuses only on the technological solution* is 3.14 and the standard deviation is 1.197.
 - The mean value for the *knowledge management process is limited to top-level management only* is 3.71 and the standard deviation is 1.178.
 - The mean value for *knowledge management focuses on the behavior of employees* is 4.17 and the standard deviation is 0.901.
 - The mean value for *knowledge management focuses on maintaining talented personnel* is 4.11 and the standard deviation is 0.910.
 - The mean value for *training, mentoring and coaching is given to employees as per the needs* is 3.16 and the standard deviation is 1.78.
 - The mean value for *capturing new and innovative ideas depends on the type of behavior by the supervisor* is 3.12 and the standard deviation is 1.184.
 - The mean value for *I have access to all important documents of the bank* is 3.19 and the standard deviation is 1.190.
 - The mean value for *my organization motivates me to devise and use innovative techniques for completing my job* is 4.11 and the standard deviation is 0.907.
 - The mean value for *I easily find and use files/documents required for my work* is 4.19 and the standard deviation is 0.918.
 - The mean value for *the bank has a database to store and distribute best practices for the efficient performance of different jobs* is 4.14 and the standard deviation is 0.915.
 - The mean value for *capturing and application of new knowledge depends on informal relation between/among team members of specific tasks* is 4.18 and the standard deviation is 0.919.
 - The mean value for *I can easily approach my seniors* is 4.10 and the standard deviation is 0.910.
- Above findings show that the connection between knowledge management practices and behavior, performance, concentration, maintenance, motivation, accessibility to information, etc. is impactful i.e. it ranges from moderate to high as the value of mean varies from 0.312 to 4.63 and standard deviation from 0.780 to 1.197. The findings are consistent with the studies of Phillips (2008), John et al. (2014) and Rajain and Rathee (2019) as all these studies also suggested that an organization should try to develop such an environment that is coherent with the expectations and requirements so that the employees may take the KM initiatives by an organization in a positive manner and cooperate in the process of KM in the organization.
- ### 8. Descriptive Statistics on the implementation and result obtained from the adoption of knowledge management initiatives
- After discussing the awareness, familiarity and implementation of knowledge management programs, it is important to discuss to find out the programs and policies adopted, modified and implemented to

make a better knowledge management environment and result obtained from the same. Table 8 describes the implementation and result obtained from the adoption of knowledge management initiatives.

RESEARCH FINDINGS AND DISCUSSIONS

- The mean for *do you have a Medical insurance package* is 4.13 and the standard deviation is 0.771.
- The mean for *your bank has retirement plan* is 4.20 and the standard deviation is 0.776.
- The mean for *the immediate supervisor to delegate responsibility to their subordinate* is 4.31 and the standard deviation is 0.819.
- The mean for *there is a lot of scope for career development in the existing job* is 4.09 and the standard deviation is 0.814.
- The mean for *the immediate supervisor discusses for further carrier development with the subordinates* is 4.14 and the standard deviation is 0.765.
- The mean for *encouragement towards teamwork is given in the bank* is 4.19 and the standard deviation is 1.040.
- The mean for *the informal gatherings is arranged in the bank* is 3.90 and the standard deviation is 0.878.
- The mean for *supervisor is always open and honest* is 4.32 and the standard deviation is 0.871.
- The mean for *the banks act as a socially responsible business unit* is 4.13 and the standard deviation is 0.909.
- The mean for *salary is reviewed as per regulatory guidelines* is 4.09 and the standard deviation is 0.797.

- The mean for *adequate information provided by the company* is 4.17 and the standard deviation is 0.871.
- The mean for *opinion and suggestions from employees are asked from employees* is 4.28 and the standard deviation is 0.938.
- The mean for *people who can challenge the present way of doing things within the department* is 4.06 and the standard deviation is 0.878.
- The mean for *we have adopted ideas from people outside the department* is 4.23 and the standard deviation is 0.950
- The mean for *the banks to keep employees informed about matters affecting them and the business of the bank itself* is 4.11 and the standard deviation is 0.719.

The results presented above shows that “the association between KM practices and performance of organizations on the aspects of developmental opportunities, cooperate with each other, salary revisions, social responsibility towards the community, well informed about changing situation and scenarios, informal gatherings, opinion of employees and adequate information provided by the company” is impactful. The findings confirm with the studies of Phillips (2008), Collings and Mellahi (2009), Bostjancic and Slana (2018), Paisey and Paisey (2019), Rajain and Rathee (2019) and Kwan et al. (2020). The above studies also suggest that it is important to find out the programs and policies adopted, modified and implemented to make a better knowledge management environment in the organizations. If employees are not aware of what is expected from them and what they are supposed to do for the accomplishment of assigned targets they find themselves in utter confusion and sometimes reluctant to be a part of the KM process of the organization. It is the foremost requirement to communicate with the employees regarding

their views too on KM processes to make them persuasive towards the expected KM outcomes.

The analysis of data gives out certain results which are summarized as major findings of the study as follows:

- The majority of the respondents are male and are of 25–35 age group.
- The maximum number of responses received from ICICI bank.
- The majority of the respondents have an idea about Knowledge Management.
- The majority of the respondents agree to follow knowledge management processes in their organization.
- The majority of the respondents are consenting that the supervisor/management arranged a Knowledge Management program for them in the organization.
- The majority of the respondents are agreeing that a *participative environment is created due to the implementation of KM Processes* in their organizations.
- Most of the respondents are agreeing for *knowledge management helps people to set and achieve meaningful goals and enhance their performance on their jobs.*
- Most of the respondents think that *knowledge management helps them to concentrate more on their work* as it is not limited to providing solutions to technological upgradations but also consider the most important element of an organization which is 'employees' and their behavior.
- Employees say that *knowledge management is not only limited to top-level management, but it also incepts middle and lower-level management employees thus training, coaching and orientation programs are organized for them in the workplace.*
- Most of the respondents *agreeing for knowledge management helps to focus on attracting talented personnel.* KM implementation and adoption depends on the behavior of seniors and subordinates.
- The majority of the respondents say that *they have access to all important documents/files and data required by them* and they are motivated to devise and implement new and innovative ideas for doing their work.
- The ratio of employees who say that the bank is having databases of best practices that are shared with them at the time of need and the juniors can contact the superiors as and when required is also significant.
- The response rate of employees who agreed that their bank provides them with retirement benefits and they do have medical insurance schemes for their employees is quite considerable.
- The employees say that their immediate supervisor discusses further career development options with them and guides them to work as a team by delegating his tasks with juniors.
- Most of the respondents think that their boss is open and honest as he arranges informal gatherings where employees are free to discuss their idea of non-consensus with someone's style/ideas of doing a particular job as a team member.
- Maximum of employees consider their banks as socially responsible business units which consider the

betterment of their employees in the form of revising the pays, arranging need-based training programs, providing all the needed information, inviting suggestions/recommendations not only from its employees but from outsiders associated with the unit, even they guide and warn about the probable challenges within units for the employees.

CONCLUSION

The present study is focused on Knowledge Management practices that have a significant impact on employees of banks. The result of the study demonstrates that knowledge management practices are very useful for employees of selected banks. Different practices of Knowledge Management which are used by banks not only motivate employees towards their present work but also encourage them to take initiatives to devise and use innovative methods of performance that not only strengthen the processes of banks but also boon up the chances of getting promoted to higher posts and career progression in the profession. Technique for executing fruitful authoritative KM activities requires exact arrangement and powerful management of the center knowledge frameworks and cycles. Both progressive employees and banks initiate innovative schemes and options for clients and earn financial benefits too by the increments in the goodwill of banks in market and with the share price of banks which in turn accelerate the wheel of development in the economy.

LIMITATIONS AND FUTURE SCOPE OF THE STUDY

Despite the above contribution, the study is affected by the limitations such as approaching the entire population and therefore the convenience sampling method was selected. A sample might not represent

the entire population completely. Additionally, budget constraints hinder the process of encompassing a wider territory. The sample size used for the study was small. These shortfalls are the futuristic avenues of this study and open the gateway for further study in a more generalized manner and with less limitations so that the somewhat generalized inferences can be drawn from the results of further studies.

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ANNEXURES

Table1: Distribution of Banks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ICICI	103	35	35	35
	HDFC	63	21	21	56
	YES	57	19	19	75
	AXIS	51	17	17	92
	IndusInd	24	8	8	100.0
	Total	300	100.0	100.0	

Table 2: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	180	60.0	60.0	60.0
	Female	120	40.0	40.0	100.0
	Total	300	100.0	100.0	

Table 3: Age of the Employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 25 years	45	15	15	15
	25 - 35 years	108	36	36	51
	35 - 45 years	81	27	27	78
	45 - 55 years	42	14	14	92
	Above 55 years	24	8	8	100.0
	Total	300	100.0	100.0	

Table 4: Do you have any idea about Knowledge Management?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	30	10.0	10.0	10.0
	Yes	270	90.0	90.0	100.0
	Total	300	100.0	100.0	

Table 5: Does your organization follow Knowledge Management in its Processes and Functioning?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	90	30	30	30
	Yes	210	70	70	100.0
	Total	300	100.0	100.0	

Table 6: Did your supervisor/management arrange any Knowledge management program for you in the organization?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	80	26.7	26.7	26.7
	Yes	220	73.3	73.3	100.0
	Total	300	100.0	100.0	

Table 7: Descriptive Statistics on Impact of Knowledge Management Programs on Employees

S. No.	Statements	N	Mean	Std. Deviation
1.	Participative environment is created due to the implementation of KM Processes.	300	4.63	0.812
2.	Knowledge management helps people to set and achieve meaningful goals.	300	4.14	0.719
3.	Employee's performance improves after adoption of Knowledge management.	300	4.11	0.894
4.	Knowledge management activities create concentration on work.	300	4.10	0.871
5.	Knowledge management process focuses only on the technological solution.	300	3.14	1.197
6.	Knowledge management process is limited to top level management only.	300	3.71	1.178
7.	Knowledge management focuses on behavior of employees.	300	4.17	0.901
8.	Knowledge management focuses on maintaining the talented personnel.	300	4.11	0.911
9.	Training, Mentoring and Coaching is given to employees.	300	3.16	1.178
10.	Capturing of new and innovative ideas depends on the type of behavior by the supervisor.	300	3.12	1.184

11.	I have access to all important documents of the bank.	300	3.19	1.190
12.	My organization motivate me to devise and use innovative techniques for completing my job.	300	4.11	.907
13.	I easily find and use files/documents required for my work.	300	4.19	.918
14.	The bank has database to store and distribute best practices for the efficient performance of different jobs.	300	4.14	0.915
15.	Capturing and application of new knowledge depends on informal relation between/among team members of specific tasks.	300	4.18	0.919
16	I can easily approach to my seniors.	300	4.10	0.910
	Valid N (listwise)	299		

Table 8: Descriptive Statistics on Adoption of Knowledge Management Initiatives

S.No	Statements	N	Mean	Std. Deviation
1.	Do you have Medical Insurance package.	300	4.13	0.771
2.	Your bank has retirement plan.	300	4.20	0.776
3.	The immediate supervisor delegate responsibility to their subordinate.	300	4.31	0.819
4.	There is lot of scope for career development in the existing job.	300	4.09	0.814
5.	The immediate supervisor discusses for further carrier development with the subordinates.	300	4.14	0.765
6.	Encouragements towards teamwork is given in bank.	300	4.19	1.045
7.	Informal gatherings are arranged in the bank.	300	3.90	0.878
8.	Supervisor is always open and honest.	300	4.32	0.871
9.	The banks act as a socially responsible business unit.	300	4.13	0.909
10.	Individual need-based training programme are arranged in bank.	300	4.27	0.887
11.	Salary are reviewed as per regulatory guidelines.	300	4.09	0.797
12.	Adequate information provided by the company.	300	4.17	0.871
13.	Opinion and suggestion from employees are asked from employees.	300	4.28	0.938

14.	People can challenge the present way of doing things within the department.	300	4.06	0.878
15.	We have adopted ideas from people outside the department.	300	4.23	0.950
16.	The banks keep employees informed about matters affecting them and the business of bank itself.	300	4.11	0.719
	Valid N (listwise)	299		

PARADIGM SHIFT IN HIGHER EDUCATION DUE TO COVID-19: LESSONS FROM AFRICA

Chikwelu Mbonu*, Ogbodo Okenwa CY**

The COVID-19 pandemic has become like a disturbing change agent causing a lot of upheavals in the world and, higher education institutions (HEIs) are not excluded. The HEIs in Africa are not left out of the negative consequences as academic activities have been paralyzed for about five months. In this paper, a qualitative approach has been adopted to explore the paradigm shift, the HEIs across Africa have adopted in tackling the challenges of COVID-19. The HEIs in Africa have underlying difficulties and the advent of the pandemic has compounded these challenges. HEIs hold three overlapping missions or mandates namely, teaching, research and outreach. The third mandate involves integrating or connecting universities activities to society and the economy. However, many African universities have not actively or comprehensively pursued this third mission and consequently, have been criticized as ivory towers. This paper will investigate the paradigm shift of HEIs across Africa because of COVID-19. This research aims to appraise the paradigm shift of these higher education institutions identifying the challenges, opportunities and solutions. The obvious low funding of HEIs in Africa has been exposed with the arrival of COVID-19. Little and ineffective investment in information communication technology has made it hard for the HEIs to maintain effective e-learning for their students. There is a need for the government and institutions to have a paradigm shift in policies towards investment in Higher education institutions to guarantee quality and effective e-learning programs in the COVID-19 era.

Keywords: Higher Education Institutions, Paradigm Shift, COVID-19.

INTRODUCTION

HEIs represent any form of education above secondary school level where students are taught specialized subjects, enabling them to become professionals in their chosen fields. These institutions will include universities, Polytechnics and colleges of higher learning. It is a fact that HEIs trajectory has been shaped by the social and external institutions they exist. We can go down memory lane a little for a better understanding. Universities were associated with knowledge preservation, religious values, and social ethics in medieval times. Later, they were linked to ethics, professions, and liberal humanism: the 'idea of a university' was famously declared to be about self-realization that came from engagement over fundamental knowledge

between tutor and student. But, from the Industrial Revolution forward and the making of a modern state, universities became increasingly integral to science, technology and the production of professional experts. During the First and Second World Wars, they were harnessed to advance national defense and geopolitical interests, something which endured between 1947 to 1991 and then into the Space Race (Daniel et al., 2013).

Most recently, however, universities have been drawn into the making and advancement of 'knowledge nations', with both a strong utilitarian and an economic rationale. An Australian Chief Scientist could articulate that paradigm by pointing to 'the potential of universities to play a central role as dynamos of growth in the innovation

*Senior Lecturer, Accountancy Department, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria.

**Head-Accountancy Department, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria.

process and be huge generators of wealth. State education ministers and vice-chancellors have increasingly advanced a focus on the so-called STEM disciplines (Science, Technology, Engineering, Mathematics), somewhat at the cost of the management and social sciences (Schreuder, 2013). The Japanese Prime Minister directed that from 2016, social sciences offered in their Federal owned Universities should be scrapped.

The public narratives concerning tertiary institutions will continue to alter as the institutions are being looked upon as a kind of 'magic porridge machine'- the source of almost endless innovation, employment and revenue. The institutions will continue to witness the paradigm shift as more challenges confront mankind, COVID-19 pandemic will not be an exception.

State of the Art

The coronavirus pandemic is a communicable respiratory disease caused by a new strain of coronavirus that causes illness in humans. COVID-19 was first reported in China but has now affected the whole world. In Africa, tertiary institutions have been affected by the devastating effects of COVID-19. The HEIs throughout Africa has not been operating since March 2020 as more people continue to be affected by the pandemic. Countries with few cases like Malawi that opened their institutions later shut them as the pandemic cases started to rise. The data from Africa Centre for Disease Control as on 25th July 2020, revealed that the trend is on increase with a total cases of 828,214, 17,509 deaths and 484,038 recoveries. Southern Africa has the highest cases of 452,000 followed by 147,500 cases in Northern Africa, 118,400 cases in Western Africa, 65,000 cases in Eastern Africa and 45,314 cases in Central Africa .

The disease has made students stay at home with its negative consequences of moral

decadence, among others. Some HEIs especially the private ones have laid-off workers as they witness a drop in revenue. The epidemic has revealed that the old model of HEIs in Africa is not working so making the institutions do a paradigm shift in the mode of learning from physical mode to online mode. The virtual method is not without its challenges as the tertiary institutions in almost all African countries are not ready for the electronic method.

Disruption of Higher Education: E-Learning

Daniel et al. (2013) identified four drivers of change in contemporary higher education namely, cyberspace, the price of higher education, private tertiary education and internationalization. The four drivers work in unison and feed each other and are likely to change the tertiary education systems of most countries.

Trends in E-learning

Bates (2011) identified three key trends in US higher education. Other countries are likely to follow similar paths as connectivity expands. The first trend is the rapid growth of online learning. Enrolment in fully online (distance) courses in the United States of America grew by twenty-one percent between 2009 and 2010, compared to a two percent expansion in campus-based enrolments. Despite this growth, institutional goals for online learning in public sector higher education lack ambition. It was argued that the intelligent use of technology could help higher education to accommodate more students, improve learning outcomes, provide more flexible access, and do all this at less cost. Instead, it was found that costs are rising because investment in technology and staff is increasing without replacing other activities. It seems that the US public higher education sector has little heart for online learning. Some institutions charge higher fees to online students, even though the costs of

serving them are presumably lower, perhaps to discourage this development. A third finding, which should stimulate the public sector to take online learning seriously, given its swift increase, is that US for-profit sector has a much higher proportion of the virtual market (32 percent) than its share of the overall higher education market (7 percent). Seven of the ten US institutions with the highest online enrolments are for-profits. For-profits are better placed to expand online because they face less resistance from academic staff and need not worry about exploiting an earlier investment in campus facilities. Furthermore, for-profits adopt a team attitude to the growth of online education curricula and student support, whereas most public institutions simply rely on individual academics to create and support online versions of their classroom courses. It was named as 'Lone Ranger' model and argues that it is less likely to produce sustainable online learning of quality than the team approach.

Finally, it was projected that over 80 percent of US students are expected to be taking courses online in 2014, up from 44 percent in 2009. The for-profits providers that are already well established in this delivery mode are likely to gain an advantage.

Access, quality and cost have been the challenges of tertiary education in Africa. E-learning has been demonstrated to expand access, lower price, and improve excellence in higher education which most governments will want to achieve (Dutt and Gaba, 2006; Daniel et al., 2013). This was demonstrated by the Triangle of Vectors, which proves that in conventional classroom education there is slight scope for these vectors to grow simultaneously. The three sides of the 'triangle' represent scale (access), quality and cost respectively. Improve one vector worsens the others. Pack more students into the class, quality will be perceived to suffer. Improve quality by providing more learning

materials or better teachers, and the cost will go up. Cost-cutting may endanger both access and quality. However, technology (e-learning) can stretch this triangle to achieve, simultaneously, wider access, higher quality and lower cost.

The Response of Higher Education to COVID-19 in Africa: Challenges and Solutions through ICT

The HEIs have underlying challenges before the arrival of COVID-19 which have been troubling them. These challenges include Ebola, malaria, tuberculosis etc. among the other challenges, such as food security, climate change, peace and security, knowledge infrastructures, in particular digital, 'Artificial Intelligence (AI) and Big Data' (Giannini and Lewis, 2020). Institutions have resulted in using radio, television and the internet where it is available to keep reach to their students. However, poor internet access especially in rural areas, low internet bandwidth, little/no information communication technology (ICT) infrastructure and impoverishment have become challenges to e-learning in African HEIs.

The 'African Union (AU)' has Agenda 2063 and CESA 2025 which agree with the United Nations 2030 Agenda which in the context of COVID 19 challenges is to see how the members of the Global Coalition for Education can help address these challenges and also share ideas on how to build more resilient Higher Education systems. The African HEIs, were however, caught napping by the pandemic due to the obvious digital divide across the continent.

The African Union reactivated three tools to support the Member States during this health crisis. First, the African Union Commission has invited early, African Member States, from the advent of COVID-19, to observe the barrier measures and to close schools and universities to stop the

spread of the pandemic. Then, the African Union has proactively reactivated its Centre for Disease Prevention and Control (CDC). Finally, the Virtual Pan-African University E-University (PAVEU), the operational arm of the African Union to support the movement towards digitalization of tertiary Learning in Africa. In addition, the AU and the African Development Bank (AFDB) are preparing to launch a fund to support innovation and scientific research.

The Association of African Universities (AAU) has the AAU COVID-19 plan. In this plan, following three important facts should be noted:

- Creation of a partnership with the 'Ubuntu Net Alliance (UA)', the African Education and Research Network of West and Center Network (WACREN), 'Arab States Network for Research and Education (ASREN)' and National Research and Education Networks (NREN).
- Launch of a partnership with eLearning Africa and WILEY Education Services to support African universities to accelerate their migration to online education
- The publication of a statement calling for massive investments to support the development of campus networks and research and teaching infrastructure.

In West African countries, there is a huge deficit of knowledge infrastructures and online training. Member nations have been invited to invest massively in network infrastructures. The 'ECOWAS COVID-19' plan for course continuity is to consider the digitalization of courses, but also the broadcasting of educational programs on radio and television.

The International Telecommunication Union (ITU) and UNESCO have carried out

interventions in West Africa to reduce the digital divide by initiating an E-Education project in Senegal. In Francophone West Africa, the Agency for Universities in Francophone (AUF) has invested considerably in the last three decades in access to knowledge and online training through its global network of French-speaking digital campuses. These infrastructures are gradually evolving towards the New French-speaking Digital Space.

The affiliates of the 'Global Coalition for Education' have proposed technological solutions to successfully implement online training. Coursera, Huawei, Weidong, Netdragon, StarTimes, 'Hamdan Bin Mohamed Smart University (HBMSU)', UNESCO IITE, ICHEI-UNESCO and CDNetworks, in turn, presented a diverse range of technological solutions ranging from intelligent classes, training offers to the design training platforms for universities and TVET institutions, Internet acceleration technologies and MOOCs. These service offerings are essentially free and aim to help universities and schools succeed in the forced shift to online training on the African continent.

Country and Regional Experiences of Virtual Universities

Country or regional experiences in successfully implementing online learning at universities are demonstrated by four concrete examples of virtual universities. These were presented by the Pan African University, which hosts the Pan African Virtual University E-University (PAVEU) of the African Union. The PAVEU was proposed to attain the requirements of 'Agenda 2063' aimed at accelerating the expansion of human capital, science, technology and innovation through increased access to tertiary education. PAVEU focuses mainly on online training, blended learning, free educational resources, to offer a real

perspective to the development of virtual universities on the continent by supporting the creation or strengthening of those that exist.

The Virtual University of Tunis (Tunisia) is a great experience of the virtual university on the continent. Created in 2002, the main mission of UVT is to develop university courses and online teaching programs for Tunisian universities. The UVT has not suffered from the perverse effects of COVID-19, like most Tunisian universities, which use the training platform in Moodle line. The UVT played a significant function in the creation of the African University Consortium for the Development of Virtual Education (CAUDEV) in April 2018, a real body for cooperation and sharing of good practices between African virtual universities.

The 'Virtual University of Senegal (UVS)', has the COVID-19 plan to ensure continuity of the courses. The UVS did not suffer from this health crisis, on the contrary, it put its expertise at the service of other universities for the design of online training devices in Senegal. Created in 2013, the UVS is a response to the massification of Higher Education to the decrease of inequalities of admission in Senegal. Throughout the COVID-19 period, the UVS and the Radio Television of Senegal (RTS1), with the assistance of the Ministry of National Education launched, in April 2020, the formation of a television channel dedicated to education, "Learn to Home" to ensure continuity of education for students living in a location where the internet is not available.

The Virtual University of Côte d'Ivoire (UVCI), created in 2015, is the second successful experience of virtual university in South of the Sahara, Africa. It has served as a capacity-building center for Ivorian universities and educational establishments, which have taken the turn of online education. 'Hackathons' competitions on the

development of applications on the COVID-19 were launched set up for students in the quest for high-tech answers to this crisis.

CONCLUSION

The one way that the HEIs in Africa can continue their academic programs in the face of the Corona virus pandemic is e-learning. However, there is a strong digital divide across the continent with little or no investment in information communication technology. It is now obvious that e-learning will disrupt higher education not just in Africa but across the globe. The economy in Africa has been devastated by the pandemic with organizations laying off workers as the institutions have shut their businesses for so long. Governments and HEIs should devise interventions to ensure that the digital inclusion and equity dimension is achieved in providing free or very affordable costs of virtual learning and distance education in Africa.

Recommendations

Governments and HEIs in Africa should liaise with international partners such as UNESCO and World Coalition for Education who have made offers to assist the HEIs in providing virtual lessons and distance learning in Africa free or at very affordable costs. Following recommendations should be pursued:

- The deployment of the allies from the Global Coalition for Education for the practical implementation of the solutions and offers proposed at the level of Member States.
- The digitization of the official curricula of tertiary education for the establishment of a real culture of virtual training and remote education in Africa, simultaneously with the reinforcement of techno-pedagogical capacities of the teachers of the three sub-education sectors.

- The construction or the strengthening of knowledge infrastructures using renewable energies and more particularly solar energy to support the digitalization of tertiary education.
- The creation or the consolidation of centers of excellence with high scientific added value and the remobilization of research teams on priority themes concerning the challenges which Africa must resolve health, resilient agriculture, and food security, climate change, peace and security, massive youth unemployment or even AI and Internet of Things (IOT).
- Fund intermediation should be supplied by the government to facilitate tertiary institutions to pay the salary of workers especially for-profit institutions, provide laptops, mobile phones to poor students/ staff and increase investment in ICT infrastructures.

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STUDY OF CUSTOMER PERCEPTION TOWARDS SERVICE QUALITY COMPONENTS: A STUDY OF DOMESTIC AIRLINES IN INDIA

* Aishwarya Goyal, ** Preeti Chawla

The service sector is contributing significantly to the growth and development of global economies. Services are becoming very important in the world's economy. Due to increased competition in the servicesector, the customers are getting more importance around the world, hence, now delivering services uniquely is very much required in the service sector. The present study intends to review the service quality components of the domestic Indian airline industry and to study the customer perception towards these components of service quality in domestic airlines. The research was conducted on domestic airlines companies operating from the northern part of the country. Factor Analysis has been employed to analyze the components of service quality and paired t-test has been applied to find the gap between expectations and perception of the customer regarding various service quality components. Eleven components of the service quality have been analyzed. Results showed that boarding services, in-flight services, and technology are the significant factors that impact the perception of the customers regarding service quality in Indian domestic airlines. Tangibility is considered an important variable in providing customer satisfaction in the airline industry.

Keywords: Domestic Airlines Industry, Customer Satisfaction, Service Quality, Customer Perception.

INTRODUCTION

The service industry is the backbone of the societal and financial development of a nation. Services are becoming very important in the world economies and helping them in achieving development goals such as poverty alleviation, providing basic services including education, water and health services. In Indian post-industrial society's services are contributing considerably by creating a higher contribution to the world output (70 percent) and employment (51.09 percent) (WTO statistics, 2018). The service sector is significantly contributing to the world's economy as 63 percent of total international wealth comes from this sector.

According to World Bank statistics, the United States is the greatest service producer with around 15.53 trillion USD.

Due to increased competition in the servicesector, the customers are getting more

importance around the world, hence, service providers are doing their best to please their customers. The quick advancement and development of services have brought about critical change in the structure of services throughout the world. Ostrowski et al. (1993) said that the growing service sector is increasing opportunities as well as creating competitive threats for the marketers in the service sector, specifically in the airline industry. Since 2004 the airline sector has transformed greatly. The implementation of worldwide norms in Indian airlines has made airlines a secure way of traveling (Hooper, 1997).

The services can produce enormous employment opportunities in the economy so it is helping in improving per capita income in the nation. Indian Airlines has brought the domestic airlines sector into the domain of the Indian Government in 1953. There is a fast and sudden transformation

* Associate Professor, CBSA, Chandigarh Group of Colleges, Landran (Mohali), Punjab.

** Assistant Professor, School of Management, TheNorthCap University, Gurgaon.

of the Airline sector in 1990 with the adoption of the open sky strategy and other liberalized policies by the Indian government. Air Deccan has raised a new competitive wave in India's airline sector (Singh, 2016). Due to the introduction of low-cost carriers in the airline industry world's domestic passenger markets and the competition structure in these markets has changed significantly. Earlier full-service network carriers had been controlling this sector (O'Connell and Williams, 2005).

Presently, India has 90 airports which include 17 international airports, 66 domestic airports, and 7 customs airports. With the entry of low-cost airlines, the thinking of the people also changed. Earlier the middle-class populations believed that air travel is only a mode of transport used by elite class people. Now the airlines are trying to enlighten their passengers and keeping them satisfied and thereby, enhancing customer loyalty, and they share their positive experiences with others. This study intends to review the service quality components of the domestic Indian airline industry and to study the customer perception towards these components of service quality in domestic airlines.

LITERATURE REVIEW

Service Quality

Zeithmal et al. (2006) stated that customers evaluate the superiority of services not only by core service but also by the way how services are produced and delivered to them and other peripheral features attached to the core service. Lewis and Booms (1993) said that service quality depends on the client's perception regarding services. Parasuraman et al. (1988) has described the perceived service quality as the client's universal outlook regarding services. In the opinion of Bitner and Hubert (1994), to measure the service quality as well as to make perception regarding inadequacy or supremacy of

provider of services and its services; customers always make a comparison of their beliefs regarding services with the actual services they received. Their expectation may be created by their precedent knowledge. Providing good quality services is very important for long-term survival and effective competitiveness in the airline sector (Balcombe et al., 2009; Cronin et al., 2000). Sachdev and Verma (2004) stated that service quality is the ability of a company for delivering services according to the expectations of the customers. Airlines' service quality measurement depends on the timeliness of delivery of services. This is the major parameter to differentiate an airline's services from its competitors.

Service Quality Gap Model designed by Parasuraman et al. (1985) was applied in the aviation sector by Fick and Ritchie (1991). Quality, in the case of service affects the competitive ability of the firm in the market by maintaining customer loyalty and by increasing market share. A study measured customer satisfaction in domestic airlines of Indonesia and found that perception and satisfaction level are significantly affecting each other (Natalisa and Subroto, 2003). Venkatesh and Nargundkar (2006) have done a comparative study of Indian domestic airlines with the help of the SERVPERF model. Chen et al. (2011) investigated the customer's perceptions regarding in-flight service quality and suggested a fuzzy-based framework. Hussain et al. (2015) used the SERVQUAL framework to find out the factors related to service quality. They thought that the quality of any service improves brand loyalty among customers. A qualitative approach along with structural equation modelling was used and 253 questionnaires were studied. They found that customer satisfaction is directly related to service quality, the perceived value of consumers and brand loyalty. Goyal et al. (2016) studied the perceived value of customers regarding

service quality factors in the domestic airlines' industry. They used convenience random sampling and factor analysis on 342 air passengers at Delhi, Amritsar and Chandigarh. Authors showed that services play a pivotal role in the minds of the customers as the quality of services made their minds as received in past. Further authors suggested how the airline companies improve their services for better satisfaction of the customers. Gupta (2018) listed and ranked the important features of service quality with the best worst method. SERVQUAL model along with VIKOR methodology used to check the tangibility, reliability, ticket pricing, security, and safety traits. The authors suggested that airline managers should give more weightage to service quality issues.

Customer Satisfaction

Satisfaction is an approach or measurement that is outlined by the client by matching their expectations before purchasing a service or product with their subjective impression regarding the performance of a particular service (Oliver, 1980). Churchill and Surprenant (1982) clarify customer satisfaction as a psychological reaction. Customer satisfaction is a psychological idea that includes the feelings of prosperity and delight that is the outcome of acquiring what one believes in and predicts from a product or service. Halstead et al. (1994), Giese and Cote (2000), Yu and Dean (2001) affirm that customer satisfaction is counter feedback that comes from cognitive judgment. Products and services both lead to customer satisfaction if there is no defect in the delivery of services or goods. Reis et al. (2003), Geyskens et al., (1999) and Woodruff and Flint (2003) believes that customer loyalty comes from the satisfaction of the customers. Customer satisfaction is considered as the main factor that affects the customers' retention rates (Cronin et al., 2000; Jin and Huffman, 2012). According to Carlzon (1987),

the growth and profitability of any organization depend on how well the company knows about their client's requirements and how they feel happy. Customer satisfaction in airlines is affected by the quality of delivery of services and complaint management. The airline companies are trying to distinguish their offers based on quality standards. Archana and Subha (2012), in this competitive scenario satisfying the consumers, is a great asset in the airline business. The various factors contribute to building a customer base and providing satisfying services to the customers.

Relationship between Service Quality Components and Customer Satisfaction

Since the 1970s the customer satisfaction is the most needed topic for research by both marketing experts and academicians (Churchill and Surprenant, 1982). Since customer satisfaction is based on a client's opinion regarding a particular service experience, it is believed that service quality depends on the satisfaction of the clients as the service quality comes from how the services are provided by the service organization (Cronin and Taylor, 1992). There is the incredible effect of quality of services on the amount of satisfaction and perceived benefits. The client's beliefs and desires regarding the service delivery process are essential for giving them maximum happiness.

Objective

The objective of the study is to review the service quality components of the domestic Indian airline industry and to study the customer perceptions and beliefs regarding these components of service quality in domestic airlines.

Hypothesis

H₀: There is a significant difference between customer perceptions and expectations

regarding various service quality dimensions in domestic airlines.

RESEARCH METHODOLOGY

The Study: This study is exploratory in nature and aimed at studying customer perception towards Service Quality Components in domestic airlines in India.

The Sample: In this study, a convenient sampling technique was chosen because only those respondents were contacted who were agreed to participate in filling the questionnaire. The study is limited to studying the service quality and customer satisfaction in domestic airlines companies operating from Chandigarh, Delhi, and Amritsar Airport. It includes the passengers of all categories i.e. business class, economy class, genders, all the age groups, and all the possible professions. 400 questionnaires were circulated from them 370 questionnaires were collected back and 28 questionnaires were left out due to incomplete questionnaires.

Tools for Data Collection: Both primary and secondary sources were used for data collection. A structured interview schedule and a pretested structured questionnaire containing relevant questions was used for the present study to collect the opinion of the various respondents. A pilot study was done on 50 respondents selected randomly from the target population to assess ambiguities in the questionnaire. There were four parts of the questionnaire. Section A included the travel details of the respondents. It included information like the domestic airlines they have chosen to travel, the purpose of their travel, class of journey and the frequency of travel. Section B included 52 statements for gathering the information regarding customer's expectations about services provided by domestic airlines which was measured on 5 points Likert scale ranging from 5 to 1 where

5 has been taken for 'strongly agree' and 1 for 'strongly disagree'. Section B also included the fifty-two statements for collecting responses regarding customer's perception regarding services consumed. This is also measured on 5 points Likert scale ranging from 5 to 1. Section C included the responses to check the satisfaction level and loyalty of the customers regarding the services consumed. Section D included the demographic details of the customers.

Tools for Data Analysis: In the present study, various statistical and mathematical tools like factor analysis, Paired t-Test and descriptive statistics like percentage and frequency tabulation have been employed. Factor Analysis has been employed to analyze the components of service quality. Further, to study the customer perception regarding various components of service quality in domestic airlines, paired t-Test has been applied. Paired t-test has been applied to find the gap between expectations and perceptions of the customer regarding various service quality components. Descriptive analysis has been done for studying the demographic profile of the respondents. For this purpose, the percentage and frequency have been applied.

RESULT AND DISCUSSION

Descriptive Statistics

Demographic distribution of the respondents shows that the maximum numbers of respondents in the sample were males (70.5 percent), servicemen (47.4 percent), graduates (44.7 percent) with the age group of 21-40 years (76.3 percent) and 32.2 percent earn monthly more than Rs 55000 (Table 1). According to the respondent's profile, it is concluded that they are young, qualified, and decently earning their livelihood and can evaluate the importance of their responses.

Exploratory Factor Analysis

Factor analysis has been employed to determine the factors affecting customer perception towards different elements of service quality in domestic airlines. The Factor analysis has been employed on 342 passenger's responses about the 52 statements. After applying exploratory factor analysis, a total of 52 items were reduced to eleven factors. The overall Cronbach's alpha for the 52 items has been estimated as 0.970 (Table 2). As per the exploratory nature of the research this value could be considered as significant. For computing the sampling adequacy, Bartlett's Test of Sphericity and Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was applied to the data. As given in Table 3, KMO value is found to be .850 which shows the sufficiency of the sample for applying factor analysis (Kaiser, 1974; Hair et al., 2015). The chi-square value is found to be 20912.332 which is significant ($p=0.000$) and indicates the appropriateness of data for doing factor analysis. Only those factors are retained for a further analysis whose Eigenvalue is more than 1. After measuring the associations among different variables the data has been assessed with the help of Principal Component method as an extraction method. For rotating the factors the Varimax Rotation technique has been used. As shown in Table 4, 11 Factors have been extracted and for showing the underlying dimensions of a particular factor the labeling is done by the researcher as it is suitable for them. These 11 factors explained 77.75 percent of the variance after Varimax rotation.

Paired t-Test

Paired t-Test has been applied for understanding the customer perceptions regarding various service quality dimensions in domestic airlines in India and finding a gap between customers' expectations and perceptions regarding those service quality dimensions. 'Service Quality Gap Model

designed by Parasuraman et al. (1985) was very first time applied in the aviation sector by Fick and Ritchie (1991) and Gourdin and Kloppenborg, (1991). For understanding the service quality Parasuraman's Gap model (1985) is the most comprehensive and commonly used model. In service marketing, the disconfirmation paradigm is used to measure the expectations and perceptions of the customers regarding the level of the services provided.

To determine whether the perceptions of the customers about the services in domestic airlines in India are matched with the expectations of the customers a gap analysis (P-E) is done. Larger gaps show that the service quality is lower than as expected level and vice versa (Hoffman and Bateson, 2006).

$$\text{Gap} = \text{Perceptions (P)} - \text{Expectations (E)}$$

A gap analysis has been used within the various service quality elements to find the gap between expectations and perceptions of the customers in domestic airline companies. The perceived gap of service quality is studied along the 11 factors extracted through factor analysis one by one. These dimensions are named as Convenience and Flexibility, Timeliness, Courtesy, Concern, Responsiveness, In-flight services, Boarding Services, Technology, Tangibility, Empathy, and Service Value and are labelled from F1 to F11.

The results of paired sample t-test as given in Table 5 reflects that the service quality gap in domestic airlines is found significant concerning all the eleven dimensions namely Convenience and Flexibility, Timeliness, Courtesy, Concern, Responsiveness, In-flight services, Boarding Services, Technology, Tangibility, Empathy, Service Value because all the significance values are less than 0.05. Therefore, the null hypothesis has been rejected in the case of all the dimensions which shows that there is a significant gap between customer perception and

expectations regarding various service quality factors.

Results reveal that the gaps are different in all eleven dimensions. Table 5 shows that among all dimensions, Timeliness (-0.43) and Concern (-0.29) show the highest negative gap between the mean score of perception and the mean score of expectations of the customers. It shows that in these two dimensions airline companies are not able to deliver the services as per the expectations of the passengers. Results recommend to the airline companies to minimize negative gap in perception and expectations of the customers in Timeliness and Concern dimensions. Whereas, Boarding Services (0.69) and Courtesy (0.49) show the highest positive gap between the mean score of perception and the mean score of expectations of the customers which shows that the companies in these two dimensions are able to fulfil the customer's expectations. By analyzing the overall gap score of all eleven dimensions it shows that in eight dimensions the mean score of perception is less than the mean score of expectations and in only three dimensions the mean score of perception is more than the mean score of expectations. Results of the study showed that boarding services, in-flight services, and technology are the significant factors that impact the perception of the customers regarding service quality in Indian domestic airlines.

In a similar type of study, the various research done by Babakus and Mangold (1992) depicted that tangibility, reliability, and empathy are considered as significant factors that affect customer's perception of service quality. Abdullah et al. (2007) studied empathy as a very important dimension in deciding about the service quality in Malaysian airlines.

Results of the Gap analysis (P-E) revealed that out of total fifty-two statements for thirty-four statements, the mean score of

perception is less than the mean score of expectations with the highest gap -1.12 for the statement 'The airlines should provide an easy remedial procedure for delayed or missing baggage' followed by -1.07 for the statement 'The airline should compensate for lost baggage if such a situation arises'. Tangibility variable is considered to be playing a very important role in providing customer satisfaction so, it is recommended to the airline companies should provide quality in services and enough variety in an in-flight meal should provide clean and hygienic washroom facility and the in-flight staff should be in uniform and show much-disciplined behavior during flight.

CONCLUSION

The present study has assessed the customer's perception towards the quality of the service delivered by various airline companies in India. The study has highlighted the various service quality elements that have a direct impact on passenger's satisfaction and perception towards domestic airlines in India. It is found that Courtesy, Responsiveness, Tangibility, Empathy and Service Value dimensions have a noteworthy influence on customer satisfaction in domestic airlines in India. Gap analysis findings concluded that Timeliness and Concern dimensions show the highest negative gap between perception and expectations of the customers. It shows that in these two dimensions airline companies are not able to deliver the services as the passengers were expecting. By analyzing the overall gap score of all eleven dimensions it is revealed that in eight dimensions the customers are dissatisfied due to the negative mean score and in only three dimensions the customers are satisfied.

RESEARCH IMPLICATIONS

Since airlines' image and passengers' satisfaction are significantly influenced by various airlines service dimensions, hence

the findings might be useful for the various airline companies to know that how they can serve their passengers better than their competitors. To compete effectively the airlines should focus on differentiating their offer from their competitors in terms of service quality. Differentiation can be possible only by adding some innovative service elements along with improving the current service in a better way. This research may be useful for the regulators to frame guidelines and policies for improving the service quality in the airline industry to suit the needs of the customers at its best.

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ANNEXURES

Table 1: DEMOGRAPHIC PROFILE

Variables	Categories	Number of Respondents	Percent
Gender	Male	241	70.5
	Female	101	29.5
Marital Status	Married	110	32.2
	Unmarried	232	67.8
Occupation	Businessman	7	2
	Self Employed	12	3.5
	Professional	156	45.6
	Serviceman	162	47.4
	Any Other	5	1.5
Age	21-40 years	261	76.3
	41-60 years	79	23.1
	Above 60 years	2	.6
Qualification	Senior Secondary	3	0.9
	Graduate	153	44.7
	Post Graduate	91	26.7
	Professional	71	20.7
	Any Other	24	7.0
Income per month	Less than Rs.25000	52	15.2
	Rs.25001-40000	91	26.5
	Rs.40001-55000	89	25.9
	Above Rs. 55000	110	32.2
Source: Compiled from data gathered through questionnaires			

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
.970	.971	52

Source: SPSS Output

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.850
Bartlett's Test of Sphericity	Approx. Chi-Square		20912.332
	df		1326
	Sig.		.000
Source: SPSS Output			

Component		Initial Eigenvalues			Rotation Sums of Squared Loadings		
		Total	Per cent of Variance	Cumulative Per cent	Total	Per cent of Variance	Cumulative Per cent
1	Convenience and Flexibility	21.217	40.802	40.802	6.796	13.069	13.069
2	Timeliness	3.543	6.813	47.615	4.405	8.472	21.540
3	Courtesy	2.761	5.311	52.926	4.100	7.885	29.425
4	Concern	2.312	4.446	57.372	4.038	7.766	37.191
5	Responsiveness	1.987	3.820	61.192	3.876	7.453	44.645
6	In-flight services	1.698	3.266	64.458	3.525	6.779	51.424
7	Boarding Services	1.591	3.059	67.517	3.414	6.565	57.989
8	Technology	1.511	2.905	70.422	3.272	6.293	64.282
9	Tangibility	1.399	2.690	73.112	2.356	4.530	68.812
10	Empathy	1.239	2.383	75.495	2.335	4.491	73.302
11	Service Value	1.171	2.252	77.747	2.311	4.445	77.747

Source: Compiled from SPSS Output

Table 5. COMPOSITE PAIRED SAMPLES STATISTICS TO TEST THE SERVICE QUALITY IN DOMESTIC AIRLINE SECTOR

S. No.	Pair	Paired Difference		t	df	P value
		Mean	Std. Deviation			
1	Pair 1 PE Convenience & Flexibility and EX-Convenience & Flexibility	-0.27	0.14	0.16	341	.000
2	Pair 1 PE-Timeliness & EX-Timeliness	-0.43	0.20	0.13	341	.000
3	Pair 1 PE-Courtesy & EX-Courtesy	-0.27	0.08	0.39	341	.000
4	Pair 1 PE-Concern & EX-Concern	-0.29	0.23	0.32	341	.000
5	Pair 1 PE-Responsiveness& EX- Responsiveness	-0.16	0.19	0.59	341	.000
6	Pair 1 PE-In-flight S & EX- In-flight S	0.49	0.07	0.33	341	.000
7	Pair 1 PE-Boarding S & EX-Boarding S	0.69	0.11	0.00 03	341	.000
8	Pair 1 PE-Technology & EX-Technology	0.28	0.39	0.50	341	.000
9	Pair 1 PE-Tangibility & EX-Tangibility	-0.21	0.20	0.66	341	.000
10	Pair 1 PE-Empathy & EX-Empathy	-0.08	0.04	0.90	341	.000
11	Pair 1 PE-Service Value & EX- Service Value	-0.04	0.06	0.97	341	.000

Source: Compiled from SPSS Output

SUPERIOR RETURN BY EQUITY MUTUAL FUNDS IN INDIA: REALITY OR MYTH

Riddhi Sharma*, Nirnimes**

Mutual funds have gained an unprecedented thrust since 2003. Investors are now more inclined to pool their assets in mutual fund than any physical asset. However, the high risk associated with the high returns does not provide any auxiliary motivation. The empirical evidence indicating the returns over and above the risk adjusted returns may prove to be a motivating factor for investors. This paper is an attempt to study whether the mutual funds in India generate statistically significant superior returns, 'Alpha', a measure of fund manager's portfolio management skills. For this purpose, twenty-one Indian, open-ended, equity, large-cap growth schemes have been selected and analyzed using the Capital Asset Pricing Model (CAPM). The daily risk adjusted scheme returns are regressed over risk adjusted benchmark returns over a period of five years from 2015 to 2020 to observe R-squared measure, F-test, coefficient of regressor (beta) and intercept (alpha). To test the robustness of the result all the major assumptions of regression analysis namely, autocorrelation, heteroscedasticity, characteristics of error term were tested by employing the Durbin-Watson test, Scatter diagram between predicted and residual terms, mean of error terms, Kolmogorov-Smirnov (K-S) test and Quantile plot. The study found that only three out of the twenty-one schemes generated statistically significant alpha at five percent significance level. A secondary result of the study presents that for most of the schemes, the variation in their returns can be significantly explained by the variation in benchmark returns as indicated by the coefficient of regressor (beta) which is found to be significant at a 5 percent significance level. The study can be generalized for Indian equity schemes owing to the random sampling of twenty-one schemes which have been studied over a sufficiently long period of five years covering intervals of market growth and decline and period of COVID-19.

Keywords: Mutual Fund, Performance, Alpha, Superior Returns, Beta Coefficient, Regression Analysis, CAPM.

INTRODUCTION

The investment avenue available to investors ranges from fixed income instruments to risky investments in stocks, mutual funds derivatives, real estate-based securities etc. An investor with low to moderate risk tolerance prefers to invest in safe investments and earns corresponding returns. Such an investor does not get the required motivation to invest in risky avenues for building their wealth. The simple reason for such behavior is that the returns generated by such instruments are expected to be only commensurate to their risk. A portfolio is expected to generate returns that are in line with the risk. Risky portfolios are

expected to generate higher returns to compensate for the risk taken by the investor and vice-versa.

However, the managed portfolios like mutual funds, which experts manage, show the generation of returns over and above the risk-adjusted returns. Most mutual fund schemes have performed well and depict professional management, selectivity skills and fund managers' ability to time the market (Tripathy, 2017). In that case, many investors will get the required motivation to participate in the affluence of the market by investing in such mutual funds. The risk-adjusted returns are the returns required to compensate for the risk. This is the return

*Student, Bachelor of Management Studies (BMS), College of Vocational Studies (CVS), South Campus, Delhi University.

** Student, Bachelor of Business Economics (BBE), College of Vocational Studies (CVS), South Campus, Delhi University.

that is proportionate to the risk of investment. Many models, in theory, help us gauge the required return from an investment, for example, the Capital Asset Pricing Model (CAPM) or the Fama French Model etc.

The returns generated by a mutual fund over and above such risk-adjusted returns are known as superior returns. These returns are measured in terms of 'Alpha' which is the difference between the actual returns and risk-adjusted return of a mutual fund. Alpha is a measure of a fund manager's performance, and it indicates the superior skills of the fund manager, which led to the generation of superior returns compared to required or risk-adjusted returns of the fund. It has been researched whether mutual fund managers generate superior returns in actively managed portfolios. Actively managed portfolios are mutual funds that are not the replica of any market index, and fund manager actively changes the fund's composition at his/her discretion. However, it is assessed regarding the benchmark market index specified by the fund manager.

The study has evaluated the performance of large-cap equity schemes in India. For this purpose, the performance of twenty-one Indian large-cap equity (growth) schemes over five years is analyzed. The CAPM model is used to assess the risk-adjusted returns of large-cap equity funds. The excess returns of funds are regressed upon the excess market return to assess the impact of market returns on fund returns and the generation of superior returns measured as Alpha by Indian equity large-cap funds. Daily returns of twenty-one mutual fund schemes for the period of five years are taken.

REVIEW OF LITERATURE

Choudhary and Chawla (2014) assessed the performance of diversified mutual fund schemes and concluded that the majority of schemes have shown superior performance. Schemes can depict good performance and

be found to be less risky than the market. Tripathy (2017) studied the performance of mutual fund schemes in India over the period of August 2008 to August 2014. The study was aimed to analyze performance, selectivity and market timing ability of fund managers and persistency of performance. The results indicate that most of the mutual fund schemes have performed well and depict professional management and selectivity skills and fund manager's ability to time the market.

Agarwal and Mirza (2017) assessed the performance of hundred mutual fund schemes in India which included diversified equity schemes, tax saving schemes, large-cap funds, long-term gilt, long-term income, short-term income funds, small/mid-cap funds and ultra-short-term funds. Various performance measures like Sharpe Ratio, Treynor Ratio, Jensen's Alpha and Value at Risk were used to assess the performance. The study period was from January 2013 to June 2016. The results indicate that majority of the schemes have performed better than their benchmarks and can generate returns more than the optimal return given their riskiness.

Donget al.(2019) demonstrate that the ability of fund managers to create value depends on market liquidity conditions, which introduces a liquidity risk exposure for skilled managers. They document an annual liquidity beta performance spread of 4percent in the cross-section of mutual funds over 1983–2014. The results highlight the interaction between informed investors, mispricing and liquidity beta.

Babbar and Sehgal (2018) examined the role of fund characteristics in determining a mutual fund's performance in India. Risk-adjusted performance of two hundred thirty-seven open-ended, Indian, Equity (Growth) schemes was estimated by employing the conditional version of Carhart's (1997) four-

factor model in a time series regression framework. A range of fund characteristics were examined, namely, the size of the fund, growth in the size of the fund, expense ratio, portfolio turnover, NAV and age of fund. A predictive model in a panel data regression framework was used to determine the future performance of the fund. The results of panel regression, based on a fixed-effects estimator, depicted that the size of the fund, growth in the size of the fund and NAV negatively impact one period ahead of a risk-adjusted performance in India, while the age of the fund has a positive impact. Expense and portfolio turnover ratios do not play a significant role.

Cujean(2018) developed an equilibrium model to explain why only a few mutual fund managers consistently outperform others, even though many have a strong informational advantage. The key element is that managers obtain most of their investment ideas through idea-sharing. Idea sharing strengthens the statistical significance of Alpha through increased price informativeness. It also allows better-informed managers to take larger positions, which makes their Alpha prominent. Although a considerable fraction of managers builds strong informational advantages, statistical significance and persistence of alpha concentrate in underperforming funds. The paper argues that the in-house development of ideas cannot account for these facts.

Barras et al. (2019) studied the False Discovery Rate (FDR) to separate skill from luck in fund performance. Using simulations with parameters informed by the data, they found that this methodology is conservative and underestimates the proportion of non-zero Alpha funds. Most funds with economically large Alphas are misclassified as zero Alpha. Their results question FDR's applicability in performance evaluation and other domains with low power and can

materially change the conclusion that most funds have zero Alpha.

Livingston et al.(2019) show that fund performance is reduced by higher expense ratios but improved by more active management and overlooked the fact that a high degree of active management magnifies the extremes of performance. In addition, higher expense ratios and turnover ratios have had greater volatility of performance and lower mean performance, a doubly negative pattern. Thus, mutual funds with more active management, higher expense ratios, and turnover ratios are riskier. Koutsokostas et al. (2019) examined the performance of Greek equity mutual funds and the persistence in annual performance for the period 2008-2017 by using a variety of performance models. Results show that the Greek equity mutual funds perform worse than the market index, irrespective of the performance measure applied. Furthermore, a winner-picking strategy based on sustained superior performers is questioned. However, assigning fund returns to the corresponding risk factors results in the partial disappearance of persistence in performance.

Arora and Raman (2020) analyzed portfolio evaluation of selected equity diversified schemes using volatility measures such as quantitative factors like Standard Deviation, Beta and the ratios such as Sharpe, Treynor, Jensen's Alpha, Information ratio, Fama's Measure, Expense ratio measures. Data for research are collected from secondary data sources and selected from thirty Mutual Fund schemes. Bu (2021) examines the impact of investor sentiment on mutual fund Alpha. Using the Baker and Wurgler index, it was determined that investor sentiment plays a significant role in explaining fund Alpha and is also directly related to the outperforming probability of funds. Also, benchmark models adjusted by investor sentiment level can better explain the

occurrence of fund alpha. This finding is confirmed by the Cumulative Distribution Function (CDF) of the t-values of the alpha estimates.

Bhattacharjee (2020) measured the performance of Mutual Fund (MF) schemes in India with a special focus on sector-specific schemes. The study found that most of the schemes are efficiently and consistently providing more returns than their respective benchmarks. The study also determined the ranks assigned by absolute measures to be highly associated with each other, and the paired correlation between absolute measures and the information ratio is found to be insignificant.

Pastor and Vorsatz (2020) present an analysis of the performance and flows of U.S. actively managed equity mutual funds during the 2020 COVID-19 crisis. They found that most active funds underperform passive benchmarks during the crisis, contradicting a popular hypothesis that funds with high sustainability ratings perform well, as do funds with high star ratings. Fund outflows surpass pre-crisis trends, but not dramatically. Zhu and Woltering (2021) document that the performance of individual mutual funds is affected by spillover effects from fund flows to connected mutual funds. Spillover effects are particularly pronounced during crisis periods when a one standard deviation increase in flows to the tercile of funds with the highest overlapping portfolio holdings is associated with monthly excess returns of 1.50 percent. Small-cap stock funds are more heavily affected, hinting that the spillover effect is associated with underlying asset liquidity.

Research Gaps

Based on the review of literature following research gaps are identified:

- It is found that limited studies in India have analyzed the generation of

superior returns measures as alpha in a regression analysis framework covering a substantially long-time span to cover periods of economic growth, slowdown and period of economic turmoil caused by COVID 19.

- Limited literature is available to assess the impact of risk adjusted benchmark returns over the risk adjusted performance of funds covering a substantially long-time span to cover periods of economic growth, slowdown and period economic turmoil caused by COVID 19.

RESEARCH OBJECTIVES

- To analyze the superior returns measured as alpha, generated by Indian Equity Large Cap Schemes (growth option, direct plan).
- To analyze the impact of risk adjusted benchmark returns over the risk adjusted Returns of Indian Equity Large Cap Schemes (growth option, direct plan).

RESEARCH METHODOLOGY

The Study: The study is exploratory in nature and based on daily Net Asset Value (NAV) data of select schemes extracted for five years from 31st August 2015 to 31st August 2020.

The Sample: For this study, the performance of Indian Equity Large Cap Schemes (Diversified Equity Schemes - Direct Plan with Growth Option) is evaluated. Randomly twenty-one schemes are selected from the AMFI data for large-cap equity schemes. For performance measurement, daily returns of select mutual fund scheme, daily returns of benchmark are calculated and for risk-free return, 91 Days T-Bills Rate is used over the sample period.

Tools for Data Collection: The daily NAV of funds is collected from the AMFI website. Data of Benchmark Index is taken from National Stock Exchange (NSE) and Mumbai Stock Exchange (BSE) website. The T-Bill rate is taken from the RBI website.

Tools for Data Analysis: Collected data were tabulated, edited and coded using MS Excel software. For further analysis of data, SPSS version 24 software was used. Regression Analysis was applied to assess the impact of benchmark performance on fund performance. The intercept Alpha is used as a measure of superior return generated by the fund.

Performance Evaluation Model

To evaluate investment returns, there are various performance evaluation models which include the Capital Asset Pricing Model (CAPM), Fama French Model and Carhart Four Factor Model.

The sample comprises only large-cap schemes and therefore the portfolio of selected funds does not vary on the parameters like market capitalization etc. The returns of diversified equity schemes are expected to be mainly influenced by benchmark returns. Therefore, in this study, CAPM Model is applied for evaluation of performance. As per the CAPM model, the portfolio returns are a function of market risk premium as shown below:

$$R_p = R_f + \text{Beta} * (R_m - R_f)$$

For the measurement of alpha, the risk adjusted returns of mutual fund are regressed over risk adjusted benchmark return. This is depicted in the form of the following regression model:

$$(R_p - R_f) = \text{Alpha} + \text{Beta} (R_m - R_f) + e$$

Here,

$R_p - R_f$ = Excess return generated by the fund over and above the risk-free return

$R_m - R_f$ = Excess return generated by benchmark over and above the risk-free return

Beta = Sensitivity of excess portfolio returns vis-à-vis excess market return

Alpha = Measure of superior returns generated by fund manager over and above the portfolio return which is commensurate with its riskiness

e = Error Term

As per this model, the risk adjusted return of a fund is impacted by the risk adjusted benchmark returns. The impact of benchmark return over fund return is depicted by Beta Coefficient. The intercept alpha reflects the fund manager's performance in terms of superior returns generated by the fund.

HYPOTHESES

H_{01} : There are no significant superior returns in the excess of risk adjusted returns generated by Large-Cap Equity Funds in India.

H_{02} : There is no significant impact of benchmark performance on the fund performance for Large-Cap Equity Funds in India.

DATA ANALYSIS AND FINDINGS

For each of the selected twenty-one equity large-cap schemes excess daily returns of schemes were regressed over excess daily benchmark returns for the period, 31st August 2015 to 31st August 2020 using the SPSS software, as depicted by the regression model:

$$(R_p - R_f) = \text{Alpha} + \text{Beta} (R_m - R_f) + e$$

From the regression results generated by SPSS software for each scheme, R Square, F Value Intercept alpha, Coefficient of Estimator ($R_m - R_f$) values were observed.

Table 1 has exhibited regression model results for twenty-one mutual fund schemes. R square of regression model indicates that how much proportion of fund performance can be explained by the model. As per the findings, out of twenty-one mutual fund schemes, nineteen schemes have R Square value between 87 percent to 97 percent. This implies that for most of the schemes, around 90 percent variation in portfolio performance is explained by the model. The result of regression analysis for all the schemes shows that the p-value is less than .05 for the F test. This implies that the model is fit for each scheme and significantly explains the impact of all independent variables on the performance of the fund. Alpha is a measure of superior return that is the return over and above the optimal return to be generated by a fund. The result of regression shows that only a few schemes show superior performance as measured by Alpha.

H_{01} : There are no significant superior returns in the excess of risk adjusted returns are generated by Large-Cap Equity Funds in India

Table 1 shows the results of regression analysis wherein only a few schemes have generated statistically significant superior returns. Out of twenty-one mutual fund schemes, three schemes namely, Axis Bluechip, Canara Robeco Bluechip and Mirae Asset Large-cap have generated the statistically significant Alpha value depicted by their p-value of less than 0.05. This implies that fund managers of these three schemes consistently managed the funds skillfully and have generated significant superior returns (Alpha) i.e. the returns over and above the risk adjusted returns, at a 5 percent significance level. Therefore, null hypothesis that "there are no significant superior returns in the excess of risk adjusted returns generated by large-cap equity funds in India" could be rejected only for these selected funds.

Though many funds generate positive Alpha, they are not statistically significant as the p-value was found to be more than .05. This implies that the positive Alpha generated by most of the funds is by chance and not because of the fund manager's skills.

Impact of Benchmark Performance on Fund Performance measured by Beta Coefficient of Estimator ($R_m - R_f$) : In the regression model the independent variable is benchmark returns. The coefficient of the estimator serves as the beta coefficient. It tells the impact of benchmark performance on the fund performance.

H_{02} : There is no significant impact of benchmark performance on the fund performance for Large-Cap Equity Funds in India.

From Table 1 it can be observed that for all the schemes Beta coefficient p-value is less than 0.05. This implies that for all the selected funds, there is a significant impact of benchmark performance on scheme performance, at a 5 percent significance level. Therefore, the null hypothesis that there is no significant impact of benchmark performance on the fund performance for large-cap equity funds in India is rejected. It can be deduced that the impact of benchmark performance on scheme performance is statistically significant at a 5 percent significance level.

Testing of Regression Assumptions

For linear regression there are some necessary assumptions are required to be met namely, no autocorrelation between error terms, no multicollinearity between estimators, constant variance of the error term and random distribution of error term with zero mean. In the study, the required tests are applied in SPSS to test the various regression assumptions for all the schemes. The results of the testing of assumptions for all the twenty-one schemes are depicted in

Table 2. The findings for testing of regression assumptions are discussed as follows:

Autocorrelation: Durbin-Watson Test

For testing of autocorrelation between the error terms, the Durbin-Watson test is used. A statistic in the range of 1.6-2.4 shows that there is no significant autocorrelation between the error terms. It was found that the Durbin-Watson test for autocorrelation is in the acceptable range of 1.6 to 2.4 for twenty schemes. The results of the autocorrelation test imply that the error terms are not serially correlated. This implies that the estimator is not biased, and the variance of the error term is not underestimated which indicates that the results of the regression model are reliable.

Multicollinearity

Multicollinearity is a measure of the correlation between different independent variables in the regression model. If the estimators are correlated to each other then it reduces the precision of regression results, and the p values of estimators are not reliable. As there is only one independent variable, analysis of multicollinearity is not required.

Heteroscedasticity: Plot between Standardized Predicted Values (ZPRED) and Standardized Residual Values (ZRESID)

One of the major assumptions of regression analysis is the homoscedasticity of the error term. This implies that the variance of the error term should be constant. If the variance of the error term is not constant then the regression estimators will not be considered unbiased and efficient. If the variance of the error term is not constant it is known as heteroscedasticity and it makes the estimators biased and inefficient and regression results are not acceptable.

The error term is required to have a constant variance. If this condition is not met then the

results of the regression are not considered efficient and unbiased. In SPSS heteroscedasticity is tested by the visual method by observing the Plot between Standardized Predicted values (ZPRED) and Standardized Residual values (ZRESID). The plot should be random and symmetrically distributed, it should not form any specific pattern. Asymmetric plot between the standardized predicted value of the dependent variable and the standardized residual value indicates that there is homoscedasticity that is the variance of the error term is constant. The results of the plot between ZPRED and ZRESID show quite symmetrical distribution, clustering in the middle of the plot for 19 schemes. This shows that there is no issue of heteroscedasticity, and the variance of errors is homoscedastic.

Characteristics of Error Term (Residuals): Mean of the Error Term, Kolmogorov-Smirnov (K-S) Test and Quantile Plot

To analyze the descriptive statistics of error terms, the mean of error terms is observed. The error term is required to be randomly distributed with a mean of zero. To test the normality, Kolmogorov-Smirnov (K-S) test and Quantile Plot are used. The normality of the error term is not a rigid condition in regression.

It is found that for all the schemes, the mean of the error term is zero. However, error terms are not normally distributed, and in most cases, Skewness is found to be under acceptable limits, and Kurtosis is found to be less than 3 indicating thin tails.

RESULT AND DISCUSSION

The results indicate that only three large-cap schemes in India could generate significant superior returns (Alpha) i.e. returns over and above the risk-adjusted returns at a 5 percent significance level. Though many schemes generate positive alpha, they were not found to be statistically significant at a 5 percent

significant level. It is concluded that only a few mutual fund managers could generate consistent superior returns over and above the returns commensurate with their level of risk. The findings are consistent with past studies (Babbar and Sehgal, 2018; Pastor and Vorsatz, 2020; Dong et al., 2017) which stated that selective funds are able to generate superior returns. These findings contrast with studies (Tripathy, 2017; Agarwal and Mirza, 2017; Bhattacharjee, 2020; Choudhary and Sehgal, 2014) which found that most of the funds are able to generate superior returns. However, the results are based on daily returns of five years and tested statistically to find out the generation of statistically significant Alpha by only selected mutual fund schemes. Therefore these results can be generalized.

The results indicate that 87 percent to 97 percent variations in large-cap schemes returns can be explained by the model as indicated by the high R square. The Beta coefficient for the estimator shows a significant impact on fund performance for all the schemes. This can be concluded that our result indicates that the independent variable namely, excess benchmark return ($R_m - R_f$) significantly impacts the dependent variable namely Excess Portfolio Return ($R_p - R_f$) for large-cap schemes at a 5 percent significance level. These findings are consistent with the studies (Tripathy, 2017; Agarwal and Mirza, 2017; Bhattacharjee, 2020, Choudhary and Sehgal, 2014).

Testing of assumptions for linear regression model for autocorrelation, heteroscedasticity indicates that the estimator ($R_m - R_f$) is Best Linear Unbiased Estimators (BLUE) as most of the assumptions of regression analysis are fulfilled. The sample period is large, and the sample is randomly selected. Daily returns of twenty-one mutual fund schemes for five years are used for regression analysis to assess the performance of mutual funds, therefore, the results can be generalized.

The sample period covers the periods of growth and decline in the economy and market, it also covers the decline and growth period of the market during COVID 19, therefore, these results can be generalized.

CONCLUSION

The booming mutual fund industry in India has gained the attention of academicians, researchers, policymakers and investors, both retail and institutional. The academic world has always remained curious about this growth and its underlying reasons. Many studies conducted in this area examined the role of fund characteristics in determining the mutual fund's performance in India. The study has evaluated the performance of 21 large-cap equity schemes in India for a period of five years. The study has indicated that the independent variable, namely excess benchmark return, significantly impacts the dependent variable, namely, Excess Portfolio Return, for large-cap schemes. Only a few large-cap schemes in India generate significant superior returns (Alpha), i.e., over and above the risk-adjusted returns. The findings would be helpful for the investors expecting superior risk adjusted return over risk free rate of return while investing their surplus funds in mutual funds.

LIMITATIONS AND FUTURE SCOPE OF RESEARCH

The study does not cover the study of factors that may have a bearing on superior returns (Alpha). The superior returns may be a manifestation of fund characteristics like Age, Size, Market Capitalization etc. This study considers if the mutual funds in India generate superior returns over and above the risk adjusted returns by covering only large-cap schemes. Future studies can include mid-cap and small-cap schemes to find out whether the generation of superior returns is widely spread irrespective of the market capitalization of the fund. The study can be

extended to assess the performance of sector funds to test if they can give exceptional returns to their investors by exploiting the benefits of sector-specific movements. The study covers the market fall and rises during COVID 19 period however, the performance period is from August 2015 to 2020. Post that period the market has been rising continuously and reaching an all-time high. This period was left intentionally to avoid the influence of an exceptionally rising market. However, the inclusion of this period may lead to different results probably towards the generation of superior returns by more fund managers.

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ANNEXURES

Table 1: Regression Model Results for 21 Mutual Fund Schemes

S.No.	Name of the Scheme	Adjusted R Square	F-Test	p value for F Test	Alpha (in %age)	p value	Beta (in %age)	p value
	Critical Values	Should be high		< 0.05		< 0.05		< 0.05
1	Aditya Birla Sun Life Frontline Equity Fund	0.961	30092.148	0.000	0.001	0.862	0.930	0.000
2	Axis Bluechip Fund	0.915	13266.93	0.000	0.018	0.0330	0.831	0.000
3	Baroda Large Cap	0.919	13868.406	0.000	-0.003	0.724	0.929	0.000
4	BNP Paribas Large Cap Fund	0.873	8424.769	0.000	0.006	0.583	0.845	0.000
5	CanaraRobecoBluechip Equity Fund	0.958	28195.49	0.000	0.016	0.010	0.909	0.000
6	Edelweiss Large Cap Fund	0.954	25502.411	0.000	0.006	0.354	0.898	0.000
7	Essel Large Cap Equity Fund	0.940	19100.867	0.000	0.002	0.788	0.949	0.000
8	Franklin India Bluechip Fund	0.916	13356.239	0.000	-0.006	0.529	0.923	0.000
9	HDFC Top 100 Fund	0.920	14131.669	0.000	0.000	0.986	1.025	0.000
10	HSBC Large Cap Equity Fund	0.961	30458.173	0.000	0.005	0.443	0.967	0.000
11	ICICI Prudential Bluechip Fund	0.968	36963.751	0.000	0.007	0.212	0.954	0.000
12	IDFC Large Cap Fund	0.958	28077.77	0.000	0.008	0.214	0.929	0.000
13	IndiabullsBluechip	0.018	23.968	0.000	-0.009	0.835	0.175	0.000
14	LIC MF Large Cap Fund	0.942	19831.379	0.000	-0.001	0.926	0.900	0.000
15	L&T India Large Cap Fund	0.968	37408.374	0.000	-0.002	0.729	0.959	0.000
16	Mirae Asset Large Cap Fund	0.974	45373.707	0.000	0.015	0.005	0.990	0.000

17	Nippon India Large Cap Fund	0.917	13532.080	0.000	-0.005	0.643	1.007	0.000
18	SBI Bluechip Fund	0.961	30004.912	0.000	0.004	0.639	0.946	0.000
19	Tata Large Cap Fund	0.950	23518.094	0.000	-0.004	0.538	0.953	0.000
20	Taurus Largecap Equity Fund	0.557	1554.356	0.000	-0.009	0.653	0.704	0.000
21	UTI Mastershare Fund	0.971	41235.237	0.000	0.003	0.599	0.910	0.000

Table 2: The Results of Testing of Regression Assumptions for all Twenty-One Schemes

S.No.	Name of the Scheme	Durbin-Watson	ZPRED-ZRESID PLOT	Mean of Error Term	Skewness	Kurtosis	KS test for normality of Residuals	Q-Q Plot
	Critical Values	between 1.6 to 2.4	No Specific pattern				p > 0.050	Actual Quantiles should be close to model quantiles
1	Aditya Birla Sun Life Frontline Equity Fund	1.910	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	-0.515	2.952	0.000	largely Okay with few outliers
2	Axis Bluechip Fund	1.893	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	0.069	1.681	0.001	largely Okay with few outliers
3	Baroda Large Cap	1.984	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	-0.038	3.393	0.000	slightly S shaped

4	BNP Paribas Large Cap Fund	2.289	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	0.335	10.140	0.000	largely Okay with few outliers
5	CanaraRobecoBluechip Equity Fund	2.010	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	-0.386	3.909	0.106	Normal distribution of residuals
6	Edelweiss Large Cap Fund	1.908	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	-0.424	2.653	0.000	largely Okay with few outliers
7	Essel Large Cap Equity Fund	1.804	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	-0.254	1.996	0.000	largely Okay with few outliers
8	Franklin India Bluechip Fund	1.902	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	0.281	8.24	0.000	slightly S shaped indicating Kurtosis
9	HDFC Top 100 Fund	1.957	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	1.351	16.303	0.000	largely Okay with few outliers
10	HSBC Large Cap Equity Fund	1.969	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	-0.449	3.354	0.000	largely Okay with few outliers
11	ICICI Prudential Bluechip Fund	1.941	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	0.235	1.396	0.001	largely Okay with few outliers

12	IDFC Large Cap Fund	1.961	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	0.095	2.090	0.000	largely Okay with few outliers
13	IndiabullsBluechip	2.205	they're somewhat symmetrically distributed, tending to cluster towards the middle of the plot, forming rectangle around horizontal axis.	0.000	-7.412	160.387	0.000	Somewhat S shaped
14	LIC MF Large Cap Fund	1.869	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	-0.175	2.506	0.000	largely Okay with few outliers
15	L&T India Large Cap Fund	1.989	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	-0.343	2.222	0.000	largely Okay with few outliers
16	Mirae Asset Large Cap Fund	1.974	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	-0.136	1.163	0.011	largely Okay with few outliers
17	Nippon India Large Cap Fund	1.855	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	-0.112	2.756	0.000	largely Okay with few outliers
18	SBI Bluechip Fund	1.970	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	0.136	1.614	0.002	largely Okay with few outliers

19	Tata Large Cap Fund	1.909	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	-0.264	0.903	0.001	largely Okay with few outliers
20	Taurus Largecap Equity Fund	2.706	they're somewhat symmetrically distributed, tending to cluster towards the middle of the plot	0.000	-0.281	3.417	0.000	largely Okay with some outliers
21	UT Mastershare Fund	1.999	they're quite symmetrically distributed, tending to cluster towards the middle of the plot	0.000	-0.041	0.964	0.200	largely Okay with some outliers

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