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SECOM Management & Technology Review

An International Peer Reviewed Research Journal (Bi-Annual) Vol- 9 Issue-1, October 2021 (ISSN-2321-5968)

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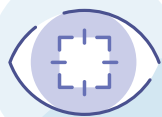


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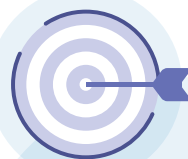


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Journal Title (in English Language)	SECOM Management and Technology Review
Publication Language	English
Publisher	CVM University, Faculty of Commerce, Management and Law (FCML) Sardargunj Mercantile English Medium College of Commerce and Management A Constituent College of CVM University
ISSN	2321-5968
E-ISSN	NA
Discipline	Social Science
Subject	Commerce, Management, Accounting (All including <i>Technology</i>) and Related Disciplines
Focus Subject	Commerce, Management, Accounting (All including <i>Technology</i>) and Related Disciplines
UGC-CARE List Group	Group B
Source	https://ugccare.unipune.ac.in/Apps1/User/User/ViewDetails?JournalId=101001105&flag=Search

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For Institution		For Authors (Mandatory)	For Individual
Term (In Year(s))	Amount (₹)	₹ 1000 (Two Issues / Copies)	₹ 500
One	₹ 1000		
Two	₹ 1500		
Three	₹ 2000		

Mode of Payment

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Editorial

If necessity is the mother of invention, scientifically developed production is the mother of scientific research ~ Arthur Edwin

Kennelly

Past couple of years has compelled us to unlearn the past theories and think on redefining future course of several human activities. NEP 2020 has also suggested several modifications in the way education is being imparted. To prepare the future global citizens, local and conical means need to be escalated to the global level. The role of educators and industry experts has, thus, become challenging. Research activities are going to be of great rescue. Micro level research on classroom teaching, effective pedagogical transaction, learners' and employers' expectations together will pave the path ahead. A road to traverse is too intricate and calls for focused endurance. A collaborative effort would serve the purpose. Together, we shall do that too.

Once again, we are glad to present this issue of SMTR with an assorted blend of papers on Finance, Marketing, HR, CSR, Tourism and IT. The issue also offers an observational study on freight performance of Indian Railways in comparison with other nations.

Firms' Size and Financial Performance of Indian Life Insurance Companies paper focuses on analyzing the financial performance of select life insurance companies. Disclosure index on working capital financing for Indian IPO prospectus is the study that examines the disclosure made by the companies for various uses of the proceeds of IPO. Another study on Woman Directors and Firm Performance is an empirical study of listed firms in India reveals whether the presence of women on board impacts the firm's financial performance. There is an accounting based article on comparative study on applications of environmental accounting and auditing practices for selected companies in India. Covid-19 has ushered several checkpoints. A study in this issue presents its impact on government revenue with reference to GST. The upheavals of stock market after pandemic are presented by two studies on a comparison between Bombay Stock Exchange and Bovespa Indices. One more research also evidently presents stock market return and market sentiments. A Study on ICT usage in promotion of rural tourism covered under the Infrastructure Development Investment Program for Tourism is a good case study.

A research on social entrepreneurship sheds the light on the challenges and opportunities that the Indian social entrepreneurship is facing, while an empirical study from India makes comparison between new Start-ups and Exports. In the area of human resource management, a research paper on reliability and validity analyses the relationship between workplace spirituality and talent retention. A study on the Human Resource challenges and opportunities for the sustainable rural tourism highlights and examines the relationship between human resource development, the need for skill training, and the level of awareness about sustainability and different practices followed at the grass-root level. A Conceptual Model on Impact of Psychological Capital on Employee Engagement focuses on proposing a conceptual framework on personal resources and job resources together for employee engagement.

Online intervention has brought the paradigm shift to the way businesses are being marketed. This has increased marketing researches exponentially. Businesses need to integrate technology at front ends while human behavior at the back ends. A study on influence of psychographics on store brand buying behaviour is a theoretical model to determine the influence of psychographic on consumers' buying behavior. An Empirical Study on Social Media Users' Opinion is a research to understand the opinions of social media users that influence the marketing strategies.

The issue contains a study that intends to examine the pattern of CSR expenditure in Aerospace and Defense public sector companies. Few more studies are deliberations on ICT in teaching analyzing perspectives of the prospects towards online teaching, challenges and opportunities of perceived usefulness and ease of use and acceptance of mobile technology by older adults. One more undeniable fact is that the pandemic has been a catalyst in the increase of online entertainment platforms, which has redefined entertainment industry and in turn ushered lot of socio-cultural changes, which needs to be researched out. A study on Spotify as the game changer of digital music industry unfolds the journey of Spotify by focusing on customer value proposition pay-off in business model innovation.

Best Wishes!



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Firms' Size and Financial Performance of Indian Life Insurance Companies

Kingshuk Adhikari, Ankita Ghosh

Abstract

Insurance industry of India has experienced a cut-throat competition since its privatization and entry of foreign companies in the market. Since then, the insurance companies, especially, the private players, large or small in size, are in constant compulsion to maintain a sound financial position to survive in the market. Thus, the present paper focuses on analyzing the financial performance of select life insurance companies over a period of ten financial years from 2010-11 to 2019-20. The paper also provides an insight on financial performance across the different size of life insurance companies. In order to attain the objective of assessing the financial performance, certain financial ratios relating to profitability, solvency and liquidity have been used. Statistical tools like mean, standard deviation, one-way ANOVA and Tukey's HSD test have also been employed the study.

Keywords: Shareholder's Fund, Total Assets, Liquidity, Profitability, Solvency.

Introduction

With the advent of globalization and privatization of insurance industry in India, several new private players along with foreign collaborating companies have entered into the market heading towards a perfect monopolistic market (Mallick, Nayak, & Das, 2017). Privatization led to improvement in not only products and the service standards but also in marketing strategies so as to increase the sales in the highly competitive market. Thus, Life insurance companies should focus more on earnings, enlarge their market share and also on maintaining a sound financial position to survive in the industry (Adhikari & Ghosh, 2018). As these companies are dealing with the money of the common people, it becomes extremely important to enquire about the financial health of these corporations. Analyzing financial performance will help the management to predict any financial crisis and also to identify its strengths and weaknesses to boost its performance from time to time. Any firm, be it large or small, in terms of size need to consistently keep a close watch on their financial and non-financial performance in order to survive in the market (Ajao & Ogieriakhi, 2018). Large firms are expected to be in a better position because of their inherent numerous advantages over small firms like enjoying economies of scale, better product positioning in the market, reduction in production costs and diversification of risk. But extremely large size of insurance companies could also have adverse effect in the form of increase in bureaucracy (Kwaning, Awuah, & Michael, 2015). Thus, it becomes extremely important to study the financial performance of the companies in relation to their size.

Review of Literature

Meher & Zewudu (2020) outlined various determinants of financial performance which includes size as one of the internal variables of a firm. It was found that size of the firms had positive correlation with financial performance which was represented by Return on Assets (ROA). Boyjoo, Ramesh, & Jaunky (2017) and Sambasivam and Ayele (2013) also identified size of the company as one of the determinants which had a positive and significant influence on the performance of the insurance firm. Derbali (2014) conducted a study on Tunisian insurance companies to identify the relationship between firms' profitability and its internal factors like leverage, tangibility, size, liquidity, age, risk and growth. Size was found to be inversely proportional to performance of insurance companies. In other words, size was found to be statistically significant. Small sizes were found to be more efficient than large firms. Charumathi (2012) concluded that size of an insurance company had positive and significant influence on the profitability and liquidity of insurance companies. Abduh & Isma (2016), also found similar type of results while studying the solvency of life insurance companies in Malaysia. Boadi, Antwi and Lartey (2013) revealed that leverage and liquidity of a company had a positive impact on the financial performance of the companies. Çekrezi (2015) identified that size of a firm is an insignificant determinant of the performance of insurance companies. The result was supported by Gatsi and Gadzo (2013) and Horera & Maganya (2020) that size of a firm doesnot have any impact on the performance of the insurance companies.

Objectives of the Study

The broad objective of the present research work is to study the financial performance of three life insurance companies operating in India under private sector. However, the specific objectives are as follows:

- To study the size wise profitability of selected life insurance companies.
- To study the size wise solvency of selected life insurance companies.
- To study the size wise liquidity of selected life insurance companies.

Hypotheses of the Study

- The status of profitability is equal across the size of the life insurance companies.
- The status of solvency is equal across the size of the life insurance companies.

- The status of liquidity is equal across the size of the life insurance companies.

Data Source and Methodology

The paper aims at attaining the objectives using data of three companies as sample from the population of twenty-three privately owned insurance companies operating in India. The study covers a period of ten financial years from 2010-11 to 2019-20. The sample companies have been selected on the basis of average of total assets held by the companies. Three groups (Large, Medium and Small) have been created after arranging the companies in descending order based on their average total assets. One company from each group has been selected randomly representing the size of the companies. The study is based on secondary data collected from annual reports of respective life insurance companies and Insurance Statistics Handbook published by Insurance Regulatory and Development Authority every year.

Table 1: Brief information about the insurance companies selected

Insurance company	Size	Date of Registration	Registration Number	Foreign Partners
HDFC Life Insurance Company Ltd.	Large	23-10-2000	101	Standard Life (Mauritius Holdings) 2006, Ltd. UK
Aviva Life Insurance Company India Ltd.	Medium	14-05-2002	122	Aviva International Holdings Ltd. UK
Aegon Life Insurance Company Ltd.	Small	27-06-2008	138	Aegon India Holdings BV, Netherlands

Source: www.irdai.gov.in & Annual Reports of respective insurance companies

Ratio analysis has been used to study the financial performance of the insurance companies in the form of profitability, solvency and liquidity. Further statistical tools, such as, mean, standard deviation, one-way ANOVA and Tukey's HSD test have been used in the study.

Scope of the Study

- The present study covers a period of ten years only from 2010-11 to 2019-20.
- In order to compare the financial performance of life insurance companies of different sizes, only three (03) financial ratios which are of wide applicability across the nations have been used.

Limitations of the Study

- The study is based on secondary data and inherent limitations of secondary data can hardly be ignored.
- The study will by and large reflect the

performance of the selected companies during the specific time period chosen for the study.

Result and Discussion

Table 2 portrays the mean values of Return on Assets i.e., ratio of Profit Before Tax to Total Assets of the three private insurance companies representing three sizes of companies, over the study period of ten financial years i.e., from 2010-11 to 2019-20. This is one of the prominently used profitability ratio by researchers. Return on Asset ratio is used to measure managerial competence in generating profits from the use of the assets held by the business (Meher & Zewudu, 2020). The higher the ratio, higher is the profitability of the company and vice versa. Thus, the mean revealed that HDFC (Large) has the highest profitability among the three companies followed by Aviva (medium) and Aegon (Small) was found having negative profitability over the years. In other words, profitability is more in case of large sized firms.

Table 2: Ratio of Profit Before Tax to Total Assets

Company	Mean	SD	F-value	p-value
HDFC	0.0090	0.00455	52.919	0.000
Aviva	0.0020	0.00514		
Aegon	-0.0319	0.01497		

Note: Based on data obtained from IRDAI Handbook on Indian Insurance Statistics (*Various issues*)

The table 2 also reveals the Standard Deviation in the Ratio of Profit Before Tax to Total Assets of the three life insurance companies, the values indicate that there is highest deviation in case of Aegon, a small firm and lowest in case of HDFC, a large firm. Thus, it can be safely concluded that consistency in profitability performance is more in case of large firms followed by medium and small firms.

One-way ANOVA has been used to test whether there is difference in the profitability across the size of the companies or not (Table 2). The result suggests that at 5% level of significance, the difference in profitability across the size is significant since the p-value is below 0.05. Thus, the profitability is not equal across the size of the companies.

Table 3: Result of Tukey's HSD Test for the Ratio of Profit Before Tax to Total Assets

Company (I)	Company (J)	Mean Difference (I-J)	Sig.
HDFC	Aviva	0.00698	0.246
HDFC	Aegon	0.04089*	0.000
Aviva	Aegon	0.03391*	0.000

Note: * The mean difference is significant at the 0.05 level.

Table 3 represents the comparison between the pair of companies from the three companies under study to find the particular pair of companies between which there exists difference in the profitability using Tukey's HSD test. Thus, the study reveals that the

mean differences for HDFC-Aegon and Aviva-Aegon are significant, thus the difference in profitability of Large-Small and Medium-Small pairs are significant. But there exists no difference in case of Large and Medium companies.

Table 4: Ratio of Shareholders' Fund to Total Assets

Company	Mean	SD	F-value	p-value
HDFC	0.0497	0.01328	261.575	0.000
Aviva	0.2239	0.01983		
Aegon	0.8999	0.15021		

Note: Based on data obtained from IRDAI Handbook on Indian Insurance Statistics (*Various issues*)

Table 4 portrays the mean values of Ratio of Shareholders' Fund to Total Assets of the selected private insurance companies representing three sizes of companies, over the study period of ten financial years i.e., from 2010-11 to 2019-20. This ratio portrays the proportion of owners' equity in the total asset of a company. Higher value of shareholders fund or owner's equity implies that the company is not much dependent on outside liabilities which will provide a cushion for any uncertainty (Rao & Rao, 2019). Thus,

the mean reveals that Aegon (Small) has the highest solvency ratio among the three companies followed by Aviva (medium) and HDFC (Large). Thus, it can be safely said that solvency position of small sized firm is better than medium size or large firm.

The table 4 also reveals the Standard Deviation in the Ratio of Shareholders' Fund to Total Assets of the three life insurance companies, the values indicate that there is highest deviation in case of Aegon, a small firm and lowest in case of HDFC, a large firm. Thus, it can be

said that consistency in solvency performance is more pronounced in case of large firms followed by medium and small firms.

One-way ANOVA has been used to test whether there is difference in the solvency across the size of the

companies (Table 4). The result suggests that at 5% level of significance, the difference in solvency across the size is significant since the p-value is below 0.05. Thus, the solvency position is not equal across the size of the companies.

Table 5: Result of Tukey's HSD Test for the Ratio of Shareholders' Fund to Total Assets

Company (I)	Company (J)	Mean Difference (I-J)	Sig.
HDFC	Aviva	-0.17417*	0.000
HDFC	Aegon	-0.85018*	0.000
Aviva	Aegon	-0.67600*	0.000

Note: * The mean difference is significant at the 0.05 level.

Table 5 represents the comparison between the pair of companies from the three companies under study to find the particular pair of companies between which there exists difference in the solvency position using Tukey's HSD test. The study reveals that the mean difference for HDFC (Large)--Aviva(Medium),

HDFC(Large)--Aegon(Small) and Aviva(Medium)--Aegon(Small) are significant, thus there is a significant difference in the solvency position in all these pairs. Thus, solvency position of a company gets influenced by its size, as is evident from the results of all the pair of companies.

Table 6: Ratio of Current Assets to Total Assets

Company	Mean	SD	F-value	p-Value
HDFC	0.0311	0.00442	21.209	0.000
Aviva	0.0434	0.01334		
Aegon	0.0877	0.03248		

Note: Based on data obtained from IRDAI Handbook on Indian Insurance Statistics (*Various issues*)

Table 6 shows the mean value of ratio of Current Assets to Total Assets (CATA) of the three life insurance companies taken as sample for the study period of ten financial years i.e., from 2010-11 to 2019-20. The ratio depicts the amount of current assets in the total assets of a company. A company with low current assets suffers from liquidity risk (Al-Afeef & Al-Qudah, 2015). Thus, high ratio indicates high liquidity and vice versa. The value of mean indicates that mean value of ratio of Current Assets to Total Assets is highest in case of Aegon (Small size) followed by Aviva (Medium size) and HDFC (Large size). Thus, it may be concluded that the ratio of current assets to total assets is higher in small companies followed by medium and large companies.

The table 6 also reveals the Standard Deviation in the Ratio of Current Assets to Total Assets (CATA) of the three life insurance companies, the values indicate that there is highest deviation in case of Aegon, a small firm and lowest in case of HDFC, a large firm. Thus, it can be said that consistency in liquidity performance is more visible in case of large firm followed by medium and small firm.

One-way ANOVA has been used to test whether there is any difference in the liquidity across the size of the companies. The result suggests that at 5% level of significance, the difference in liquidity across size is significant since the p-value is below 0.05 as is shown in table 6. Thus, the liquidity position is also not equal across the size of the companies.

Table 7: Result of Tukey's HSD Test for the Ratio of Current Assets to Total Assets

Company (I)	Company (J)	Mean Difference (I-J)	Sig.
HDFC	Aviva	-0.01227	0.384
HDFC	Aegon	-0.05656*	0.000
Aviva	Aegon	-0.04429*	0.000

Note: * The mean difference is significant at the 0.05 level.

Table 7 represents the comparison between the pair of companies from the three companies under study to find the particular pair of companies between which there exists difference in the liquidity using Tukey's HSD test. Thus, the study reveals that the mean difference for HDFC-Aegon and Aviva-Aegon is significant, thus there is significant difference between firms' liquidity of Large-Small and Medium-Small pairs. But there exists no difference in case of Large-Medium pair of companies.

Summary of Major Findings

- The profitability ratio represented by Return on Assets (ROA) or Ratio of Profit Before Tax to Total Assets, shows high profitability in large company i.e., HDFC Life Insurance Company Ltd. and negative profitability in case of small company i.e., Aegon Life Insurance Company Ltd. One-way ANOVA test also reveals that the profitability varies across the size of the companies. The variation in profitability is higher among the pair of large & small and medium & small sized companies only as is depicted by the results of Tukey's HSD test.
- In case of solvency, ratio of Shareholders' Fund to Total Assets has been used to compare the solvency position of the companies. The results show high solvency in case of small company and low solvency in case of large company though consistency could only be found in large company. One-way ANOVA test reveals that solvency varies across the size of the companies. The result is further supported by Tukey's HSD test which states that there is significant difference in solvency over the different size of the companies.
- Liquidity position of the companies found by using ratio of Current Assets to Total Assets. High liquidity is observed in case of small company and low liquidity in case of large company but consistency is more pronounced in large company. One-way ANOVA test reveals that liquidity varies across the size of the companies. This variation in liquidity and is higher among the pair of large & small and medium & small sized companies only as depicted by the results of Tukey's HSD test.

Epilogue

Measurement of financial performance of life insurance companies has gained much relevance in recent times due to their assurance relating to risk coverage to the individuals financially. Thus, financial

analysis of these companies becomes is of paramount importance. The study aims at analyzing the financial performance of Indian private life insurance companies through studying their profitability, solvency and liquidity position. Hence various financial ratios were used in the study such as, ratio of Profit Before Tax to Total Assets (Profitability ratio), ratio of Shareholders' Fund to Total Assets (Solvency ratio) and ratio of Current Assets to Total Assets (Liquidity Ratio). HDFC Life Insurance Company Ltd.'s profitability is the highest among the three companies, while Aegon Life Insurance Company Ltd. holds the top position in terms of solvency and liquidity. Also, by employing One-Way ANOVA, it was found that there exists significant difference in profitability, solvency and liquidity across the size of the select life insurance companies during the study period. The results state that the financial performance varies according the size of the life insurance companies. And lastly by applying Tukey's HSD test, a significant difference has been found between the pair of large & small sized companies and medium & small sized companies in case of profitability and liquidity but in case of solvency a significant difference could be seen between all the pair of companies.

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Stock Market Reaction to Covid Pandemic: A Comparison Between Bombay Stock Exchange and Bovespa Indices

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Abstract

The present study analyses the behaviour of Bombay Stock Exchange index of India and Bovespa Index of Brazil in three situations viz. normal period i.e., before pandemic; non normal period i.e., during pandemic and economic restrictions; new normal phase i.e., with pandemic but with reduced economic restrictions. An attempt is made to compare the three groups within the countries and each phase of economy between the countries. Data have been collected from the websites of concern stock exchanges. Kruskal Wallis test along with ARIMA model is applied for data analysis. Normality and Stationarity are examined before applying such techniques. The result reflects that there is no difference in behaviour of such index in Brazil. This study can help the underwriters, the investors, and the bankers etc to take rational decision.

Keywords: Stock Market, Pandemic, Normal, Non-Normal, New Normal

Introduction

Outbreak of novel Corona virus disease (COVID-19) is seriously hit the global economy. The pandemic have severely weakened the global economy as well as the performance of stock market and has caused fear and panic among stock market stakeholders. The consequences of the infectious disease are considerable and have been directly affecting stock market worldwide (Liu *et al.*, 2020). Unprecedented shock of epidemic not only affects the health of public but also halt the world's economy. Evaluating and Understanding the economic impact of COVID-19 has become an important topic to discuss. There is a link between stock market and economy. There is a simultaneity relationship between the both. Violent fluctuations in the stock price will have far reaching ramification and serious consequences for the economy as a whole (Jincy *et al.*, 2019). Indian stock market is a highly volatile sensitive and reactive to the unanticipated shocks and changes (Vijaya, 2016). The present study examines two stock indices i.e., BSE stock exchange of India and Bovespa stock exchange of Brazil. India took second place and confirmed 9677203 cases and Brazil occupied third place by confirming 6603540 cases. The current ravaging outbreak of COVID-19 is a proof that good health is the prime engine of economic activities and economic growth (Meer *et al.*, 2003). Hence this research paper focuses to explore the auto regressive behaviour of stock market indices of the two top countries which experienced maximum confirmed cases that is the 2nd (India) and the 3rd (Brazil) in normal, non-normal and new normal to take best investment decision in the regime of COVID-19.

Worldwide different sectors are greatly affected due to lockdown with economic restrictions imposed by different countries to control infection. Stock market is the barometer of countries economic development (Vijay, 2016). The Covid-19 worsens the world's economic as well as stock market performance. Pandemic has proved to be an unprecedented shock of this decade. According to past history of stock market reaction to epidemic where stock market had shown some relative immunity to past epidemic (Kleintop, 2020). This paper throws light on this aspect in three different phases i.e., normal, non-normal and new normal phases which help to investor, underwriters, policy maker in rational decision making.

Review of Literature

Alamet *et al.*, (2020) examined the reaction of Indian Stock Market during the lockdown period caused by Covid-19 outbreak and the result revealed that the market responded positively with a significant amount of average abnormal return during the lockdown period. The author concluded that the blockade had a positive impact on the performance of Indian stock market and that the situation in India has improved. Ashraf (2020) examined the stock market reaction to the COVID-19 epidemic. The researcher found that the stock market is more responsive to an increase in the number of confirmed cases than an increase in the number of deaths. Stock Market returns declined while the number of confirmed cases were in increasing trends. Chaudhary *et al.*, (2020) studied the impact of Covid-19 on the Indian Stock Market and found that the stock market was more volatile during the pandemic period. Chowdhury *et al.*, (2020) aimed to study the effect of Covid-19 epidemic on the US stock market. He applied different

model such as GARCH, VAR, and ESM method and notably found that fatalities have significant effect on the stock market volatility. Ding *et al.*, (2020), investigated which sector performed better even as market sentiment is affected by the pandemic. For these 37 sectors are analysed through SBD measures, time series data, VAR. The result indicates that the market sentiment towards the COVID – 19 pandemics has significant effect on the stock price. Hariharan (2018) aims to investigated the volatility behaviour of the Indian sector indices. From the BSE, 12 sectors indices were selected from Jan12 to Dec. 2016. Augmented Dickey Fuller test and GARCH (1, 1) model were used to identify volatility. The study found that S&P BSE healthcare and banker record high risk with high return. He *et al.*, (2020) has conducted an event study to examine the impact of COVID – 19 diseases on the Chinese Stock market. The researchers have applied T-test to observe the abnormal rate of return and found that Chinese stock market i.e., Shanghai and Shenzhen stock exchange severely affected by the pandemic. Khan *et al.*, (2020) aimed to investigate the impact of pandemic on stock market of 16 countries by preparing weekly panel data of covid-19. The study used t test and mann-Whitney test is used to find the result. The authors opined that various stock markets are severely affected during the pandemic and indicate strong measures taken by the Chinese Government which helps the investors to regain confidence. Kothishwar(2020) made an investigation to examined the relationship of the Corona pandemic with the select stock market indices of different countries. The study used VECM model to determine the impact of covid-19 and found that all the selected stock indices are negatively affected by the Corona disease. Lee *et al.*, (2020) analysed the effect of Covid-19 virus on KLCI index of Malaysian stock market. The result showed that the KLCI index is negatively affected by the disease except Real Estate Investment Fund Index. Ngwakewe (2020) evaluates the extent and direction of the differential effect of covid-19 on select world stock index. The statistical result revealed that the significant difference between the Paired sample of stock value of four different stock exchanges and pandemic caused to the reduction of stock value. Nippani and Washer (2004) studied the impact of SARS on various countries and the study concluded that there are some countries which have negative impact and some have positive impact. Orhan (2020) attempts to shows how investors react to different corona virus data announcement considering especially the level of freedom by employ regression analysis of 75 countries. *The results suggest that the increase in death cases and the number of confirmed*

cases have significant negative effects on stock market return and significant positive effects on volatilities. Mishra & Mishra (2020) analysis the behaviour of selected Asian stock market amid COVID 19 pandemic scenario and finds the negative impact of COVID – 19 on the occurrence of volatility and the stock market return. Pareek & Singh (2020) conceptualized views and analyse of initial signalling effect of the epidemic covid-19 on the Indian stock market using correlation between number of cases and stock market prices. The result showed that the negative correlation between these variables. Pushpalatha *et al.*, (2020) had undertaken to determine the share prices moment and its volatility. This study revealed that investor can take the benefits on the basis of past information in Indian Stock Markets. Singh *et al.*, examine the impact of COVID - 19 on the stock market of G-20 countries. The result found that there is a recovery of stock market from the negative impact of COVID-19. Sumesera (2020) attempted to determine the impact of Corona Pandemic on the Bombay Stock Exchange and its sub-indices. The Paired T-test has been applied as a statistical tool and revealed that it has negative impact on this index.

Existing studies investigated various aspect of stock market such as volatile, market sentiment and investment pattern & behaviour and impact of COVID-19 on the stock market indices of a particular country. Researchers tried to establish a relationship between the number of infections or the deaths with stock market indices. After reviewing various literatures, it is concluded that novel Covid-19 pandemic act as a black cloud over the stock market. The literature review revealed that there was no study to explore the auto regressive behaviour of BSE of India and Bovespa stock exchange of Brazil during normal, non- normal and new normal phases of Covid-19. Furthermore, this study compares the stock indices behaviour of Bombay Stock Exchange with Bovespa stock exchange. This study is unique and it contributes to the existing literature and attempts to uncover the comparison between Brazil and India (top 10 most affected countries) in the regime of Covid-19 pandemic. Thus, this study fills the knowledge gap.

Objectives

1. To explore the auto regressive behaviour of Bombay Stock Exchange of India during normal, non-normal and new normal period.
2. To assess the auto regressive behaviour of Bovespa Stock Exchange of Brazil during normal, non-normal and new normal period.
3. To compare the stock indices behaviour of Bombay Stock Exchange with Bovespa Stock Exchange.

Data and Methodology

Stock market data has been collected from the websites of respective stock markets. The change of

indices is taken rather taking the absolute data. Government stringency index is used for segmenting the data period

Table 1: Government Stringency Index

Phases	India		Brazil	
	Period	GSI (%)	Period	GSI (%)
Normal	25 th Jan. 20 to 21 st March 20	5.56 to 76.39	29 th Jan. 20 to 5 th May 20	5.56 to 81.02
Non-Normal	22 nd March 20 to 30 th June 30	100 to 76.39	6 th May 20 to 31 st July 20	81 to 72.69
New Normal	1 st July 20 to 30 th Oct 20	74.07 to 61.57	1 st Aug 20 to 30 th Oct 20	72.69 to 55.09

Source: Authors' own tabulation

Note: GSI: Government Stringency Index

The period from 25th January 2020 to 30th October 2020 is taken for the study purpose. The total period is divided into three phases as per the rise and fall of Government stringency index (Hale *et al.*, 2020) which is calculated after assessing different socio-economic restrictions like School closing, work place closing, close of public transport, restrictions on internal and international movement etc. by different countries across the world. Such index has been calculated from 21st January but for India and Brazil such index started rising from 25th January 2020 so this date is taken as beginning of the period. Normal phase

is decided when no such strict socio-economic restrictions were imposed, while non-normal phase is considered where many such restrictions were imposed and new normal phase is considered when such restrictions had been lifted. The stringency index in the normal period ranges from 5.56 to 76.39 and 5.56 to 81.02 for India and Brazil respectively. For non-normal period, it is 100 to 76.39 and 81 to 72.69 and for new-normal period it is 74.57 to 61.57 and 72.69 to 55.09 for both the countries. Different researchers (Lee *et al.*, 2020; Hale *et al.*, 2020; Hussain 2020) have started working on different dimensions of Covid-19 by using such stringency index.

Table 2: Unit Root Result

Phases	India		Brazil	
	ADF (P Value)	PP (P Value)	ADF (P Value)	PP (P Value)
Normal	-7.77(0.00)	-7.16 (0.00)	-10.90 (0.00)	-10.68 (0.00)
Non-Normal	10.26 (0.00)	-12.67 (0.00)	-9.96 (0.00)	-9.95 (0.00)
New Normal	-9.98 (0.00)	-9.96 (0.00)	-10.68 (0.00)	-10.51 (0.00)

Source: Authors' own tabulation

ADF: Augmented Dickey-Fuller; PP: Phillips-Perron

Stationarity of the series is checked by applying Augmented Dickey-Fuller &

Phillips-Perron (Gujarati, *et al.*, 2007) test. P value in all the cases above is .00 which confirms that there is no presence of unit root.

Table 3: Model Fit Criterion

Phases	India				Brazil			
	R ²	Adj. R ²	D-W Stat.	F Stat. (P Value)	R ²	Adj. R ²	D-W Stat.	F Stat. (P Value)
Normal	.39	.26	1.95	3.00 (0.01)	.22	.13	2.35	3.01(0.01)
Non-Normal	.27	.19	2.15	2.25 (0.03)	.23	.14	2.05	2.42(0.03)
New Normal	.25	.15	1.95	2.64 (.00)	.20	.11	1.67	2.40(0.03)

Source: Authors' own tabulation

Note: D-W Stat: Durbin-Watson Statistics.

In the above table, low R square is witnessed in all cases. However, research work can be proceeded with low R square value as R square is not free from bias and sometimes it overestimates the theoretical value (Akossou & Palm, 2013). Moreover, Filho *et al.* (2011) claimed that "It is impossible to draw substantive meaning based only on the magnitude of the coefficient of determination". But an R square coefficient can be increased with addition of

dependent variables (Dodge, 1999; McQuarrie & Tsai, 1998).

The Durbin-Watson (1950) statistics (Maxwell & David, 1995; White, 1992) measures that there is no auto correlation at lag 1 when it ranges from 1.5 to 2.5. Such value for both the stock exchanges in all the three phases are within the prescribed limit.

ARMA (Mathew, 2013) and Kruskal-Wallis (Ostertagová *et al.*, 2014) test applied for data analysis.

Model and Discussion

Table 4: Autoregressive Behaviour of Bovespa Index in Three Phases

Variables	Normal Phase		Non-Normal Phase		New Normal Phase	
	Coefficient	Z Stat. (P)	Coefficient	Z Stat. (P)	Coefficient	Z Stat. (P)
C	0.116	1.046(.29)	0.422	2.839 (.00)	-0.130	-1.013(.31)
AR(1)	0.0002	0.001(.99)	-0.191	-1.899 (.057)	-0.524	-0.490(.62)
AR(2)	-0.466	-4.751(.00)	0.094	0.996 (.31)	-0.507	-3.251(.00)
AR(3)	0.313	2.368(.01)	0.538	6.698 (.00)	-0.270	-0.523(.60)
MA(1)	0.112	0.852(.39)	0.109	4.424 (.00)	0.079	0.077(.93)
MA(2)	0.329	3.500(.00)	0.095	11.365(.00)	0.769	2.091(.03)
MA(3)	-0.574	-5.445(.00)	-0.845	-48.361(.00)	0.430	0.463(.64)

Source: Authors' own tabulation

The ARMA (3,3) model measures the impact of changes in Bovespa stock market return and its error term up to lag 3 on current market return in the three phases of economy in Brazil due to the ensuing pandemic. In the normal phase, the market return in the second and third realisation has impacted the current market return at 1% level and 5% level respectively. While, the error term in lag 3 and lag 2 has significant impact on the current

market return. But in the non-normal phase, return at 3rd lag has significant impact on current stock indices. However, errors of all the three terms has been significantly affecting the current market return at 1% level. In the new normal phase, the both market return and error term in lag 2 has significant impact on current stock price at 1% level and 5% level respectively.

Table 5: Autoregressive Behaviour of Bombay Stock Exchange Index in Three Phases

Variable	Normal Phase		Non-Normal Phase		New Normal Phase	
	Coefficient	Z Stat. (P)	Coefficient	Z Stat. (P)	Coefficient	Z Stat. (P)
C	-0.245	-0.04 (.96)	0.330	1.401 (.16)	0.117	0.861 (.38)
AR(1)	0.423	2.607 (.00)	0.566	225.72 (.00)	0.323	3.848 (.00)
AR(2)	0.107	6.228 (.00)	-0.492	-4.878 (.00)	0.400	6.588 (.00)
AR(3)	0.451	3.545 (.00)	-0.082	-0.902 (.36)	-0.710	-10.63 (.00)
MA(1)	0.078	0.396 (.69)	-0.746	-11.701 (.00)	-0.397	-10.390(.00)
MA(2)	0.075	0.430 (.66)	0.811	986.602 (.00)	-0.388	-13.776(.00)
MA(3)	-0.811	-4.737 (.00)	0.194	10.634 (.00)	0.962	44.559 (.00)

Source: Authors' own tabulation

In the pre covid period in India, the sensx return at lag 1, lag 2 and lag 3 has significant impact on the current change in sensx return 1% level. The 3rd error term has impact on current stock indices at 1% level of significance. In the non-normal phase, current BSE return is being influenced by its first and second

realisation at 1% level and by its error term in all the three error terms at 1% level of significance.

But in new normal phase, all the three realisations and error term have significant impact on current BSE return at 1% level.

Table 6: Behaviour of BSE and Bovespa Index in Normal Phase

Variable	BSE Indices		Bovespa Indices	
	Normal Phase		Normal Phase	
	Coefficient	Z Stat. (P)	Coefficient	Z Stat. (P)
C	-0.245	-0.04 (.96)	0.116	1.046(.29)
AR(1)	0.423	2.607 (.00)	0.0002	0.001(.99)
AR(2)	0.107	6.228 (.00)	-0.466	-4.751(.00)
AR(3)	0.451	3.545 (.00)	0.313	2.368(.01)
MA(1)	0.078	0.396 (.69)	0.112	0.852(.39)
MA(2)	0.075	0.430 (.66)	0.329	3.500(.00)
MA(3)	-0.811	-4.737 (.00)	-0.574	-5.445(.00)

Source: Authors' own tabulation

In the pre-pandemic period in India, BSE return is being influenced by all its three lag returns and 3rd error term at 1% level of significance. In the same phase in Brazil, current Bovespa Index is being influenced by

its second realisation and third realisation at 1% level and 5% level significantly. The second and third error term has significant impact on current Bovespa stock index at 1% level.

Table 7: Behaviour of BSE and Bovespa Index in Non-Normal Phase

Variable	BSE Indices		Bovespa	
	Non-Normal Phase		Non-Normal Phase	
	Coefficient	Z Stat. (P)	Coefficient	Z Stat. (P)
C	0.330	1.401 (.16)	0.422	2.839 (.00)
AR(1)	0.566	225.72 (.00)	-0.191	-1.899 (.057)
AR(2)	-0.492	-4.878 (.00)	0.094	0.996 (.31)
AR(3)	-0.082	-0.902 (.36)	0.538	6.698 (.00)
MA(1)	-0.746	-11.701 (.00)	0.109	4.424 (.00)
MA(2)	0.811	986.602 (.00)	0.095	11.365 (.00)
MA(3)	0.194	10.634 (.00)	-0.845	-48.361 (.00)

Source: Authors' own tabulation

In the non-normal phase, all the three error terms have significant impact on both BSE index and Bovespa index at 1% level of significance. Stock return in lag 1

and lag 2 in India and at lag 3 in Brazil has significant impact on its corresponding stock prices.

Table 8: Behaviour of BSE and Bovespa Index in New Normal Phase

Variable	BSE Indices		Bovespa	
	New Normal Phase		New Normal Phase	
	Coefficient	Z Stat. (P)	Coefficient	Z Stat. (P)
C	0.117	0.861 (.38)	-0.130	-1.013(.31)
AR(1)	0.323	3.848 (.00)	-0.524	-0.490(.62)
AR(2)	0.400	6.588 (.00)	-0.507	-3.251(.00)
AR(3)	-0.710	-10.63 (.00)	-0.270	-0.523(.60)
MA(1)	-0.397	-10.390(.00)	0.079	0.077(.93)
MA(2)	-0.388	-13.776(.00)	0.769	2.091(.03)
MA(3)	0.962	44.559 (.00)	0.430	0.463(.64)

Source: Authors' own tabulation

In the new normal phase, BSE index depends on its all realisations in lag 3 and errors terms in lag 3 as well.

But in Brazil, Bovespa indices depend on its second relation and second error term.

Table 9: Statistics for Kruskal Wallis Test

Statistics	Changes in Bovespa Index	Changes in Bombay Stock Exchange
Chi-Square	2.516	10.519
Df	2	2
P Value	.284	.005

Source: Authors' own tabulation

In the above table, the test statistics for Bovespa Index and Bombay Stock Exchange are 2.56 and 10.519 with p value .284 and .005 respectively. There is no impact of these three situations in on the changes of Bovespa stock market index as the p value is more than .05 whereas the covid impact is well felt on the changes of sensdex return at 1% level of significance as the P value is 0.00.

Major Findings

During pre-pandemic period in Brazil, the stakeholders of Boyespa market can use the second- and third-day information to predict the current market price. Similarly, the errors terms in second and third lag are to be considered while predicting the current stock price.

In the non-normal phase, investors of Boyespa market can rely on the third day to predict the current day price. They have to consider error term from day 1 to day 3 for such prediction. In the new normal phase, investors of the same market in Brazil only have to pick the second day data and error term in the second day to forecast the current market situation. In India, BSE sensdex in the pre-pandemic period depends on its three realisations and 3rd error term. So, the stakeholders of such market can anticipate the current stock price by relying on its all-previous prices. In the non-normal phase, the current BSE Sensdex price can be predicted by taking the information from second and third previous day and all its previous error terms.

In the new normal phase, prediction in Bombay stock exchange is quite complex as it depends on all its previous realisations and error terms. Pushpalatha *et al.*, (2020) also observed that investors can rely on the past period data of India stock exchanges for prediction. In the pre-pandemic period, BSE sensdex current return depends on all its previous three-day data unlike Boyespa indices of Brazil which depends on second and third previous day data. But, the third error term of both the market has significant negative impact on current day data. In the non-normal phase when pandemic with economic restrictions is prevailed, BSE current data depends on past two days data which has a negative influence. But Boyespa indices depend on the 3rd day data which has positive influence. But the three error terms in both the markets have significant impact on current day stock price. The stakeholders can adjust accordingly while predicting the current market price. In the new normal period, BSE current return depends on all its three days past period realisations and errors as well. The third day data and first two error terms have negative impact on current stock indices. But in Brazil, only second day data has significant but negative impact on Boyespa current return. The behaviour of the two major stock market indices in both the countries is not same in the

three phases. There is no difference in changes in Bovespa Index in the three periods. But these three situations have significant impact on changes in Bombay Stock Exchange. It may be the result of strict socio-economic lockdown in India, during pandemic and organised unlocks process after pandemic.

He *et al.*, (2020) & Khan *et al.*, (2020) observed that pandemic has significant affected different stock exchanges of China. The Covid-19 has also negatively affected the KLCI index of Malaysian stock market (Lee *et al.*, (2020). Sumesera (2020) concluded that Covid-19 has negative impact on Bombay Stock Exchange and its sub-indices. Ashraf (2020) studied the Covid-19 impact on major stock market return of 64 countries including BSE Sensdex of India and Bovespa stock return of Brazil and found that stock market returns decreased when no of infections increased. But Nippani and Washer (2004) found that the infections of SARS virus have impact on stock markets of some countries only. Also, Salisu& Xuan (2020) found that “Accounting for health news during pandemics improves stock return predictability”.

Conclusion

The Prolonged and fatal explosion of Corona Virus is disrupting the global economy and affecting stock market performance and sentiments. COVID – 19 is a typical black swan event, and its occurrence, development, and even disappearance, as well as the depth, breath, and intensify of its impact are all unknown (Heet al., 2020). This Paper examined the reaction of select major stock indices in different time horizon i.e., Normal, Non-Normal and New Normal phases. We used the ARMA model to measure the quantum of auto regressive impact on the stock indices in three different phases. We used the daily data over a period from 25th January to 30th October 2020. The data has been collected from the selected stock indices of India and Brazil i.e., BSE and BOVESPA Stock Indices. The Study Observed that the behaviour of stock indices of both the countries is not equal over the three phases of time frame. The Bovespa Stock Indices has not been influenced by during the study period whereas BSE has been greatly affected in these three situations due to strict socio-economic lockdown and organised unlock process in New Normal phase. This article can help the different stakeholders like Investors, bankers, underwriter's etc. in taking various rational decisions. This paper can also make an outset for the researchers, academicians, institutions etc. in further research. The limitation of this study is that it is confined to comparison between two stock indices only. So, it is a scope for the researcher to conduct a deeper research by considering the huge number of stock indices along with different financial sectors.

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Disclosure Index on Working Capital Financing for Indian IPO Prospectus

Jigna Trivedi, Bindiya Soni

Abstract

Initial Public Offer (IPO) prospectus contains material information for the investors to take an informed investment decision. The main purpose of the study is to analyze the extent of working capital disclosure made by Indian companies coming out with IPO. The present study examines the disclosure made by the companies for various uses of the proceeds of IPO under the section of Objects of the Issue in the prospectus. The research is based on hand collected data of 72 companies that came out with IPO during 2010-2014 period and subsequently listed on Bombay Stock Exchange. Comprehensive content analysis was done to quantify the amount of information with respect to the motives of IPO especially; financing of working capital requirement and a scale of 30 items was developed. It was found that significant number of companies stated meeting either long term working capital requirement or margin money for working capital as one of the motives for issuing, the IPOs in India. However, none of the companies have declared more than 25 items pertaining to working capital financing in the IPO Prospectus. The study will be useful to the investors and managers to understand the use of proceeds of IPO and how to use this information to meet their respective goals.

Key-Words: Disclosure Index, Financing Function, Initial Public Offering, Use of Proceeds, Working Capital.

Introduction

There are multiple ways in which a company can raise funding and issuing shares in the primary market i.e. Initial Public Offer (IPO); is one of them. In India, Securities Exchange Board of India (SEBI) regulates the entire process of issuing the securities in the primary market from appointment of various intermediaries, validating the offer document, observing the legal compliances, pricing of the issue, allotment of securities and finally the listing of securities on stock exchange. SEBI has issued Issue of Capital and Disclosure Requirements (ICDR) Regulations, 2009; in this regard (Pathak, 2018). According to this guideline, the offer document shall contain all material disclosures which are true and adequate. This will help the investors to take an informed investment decision. In case of public issue, the offer document means Prospectus. IPO prospectus is prepared by lead manager and submitted to SEBI for approval. The prospectus of IPO contains the financial as well as the non-financial information, such as about the company, management, promoters, industry overview, risk factors, legal information, offer information, financial information etc. ICDR regulations have specified the format and the mandatory disclosure requirements for the information to be incorporated in the offer document.

In this prospectus, one of the very crucial sections for the investors is Objects of the issue. This section basically explains the purpose of issuing the public offer along with the use of proceeds. In Indian context, it has been observed that companies launch IPOs for meeting the funding requirement for expansion, diversification, modernization, long term working capital, repayment of debt and other general corporate purposes such as strategic mergers and acquisitions, investment in subsidiaries, new product development, meeting exigencies in the ordinary course of business etc.

This study focuses upon one of the motives for launching the IPO i.e. financing of working capital requirement. Though, SEBI has prescribed the mandatory disclosure requirement, it was observed by the researchers that management of the company follows discretionary approach while disclosing few facts and hence an attempt has been made in the study to formulate the disclosure index with respect to working capital financing. For making this index, the IPO prospectus of companies from 2010 to 2014 has been systematically analyzed with respect to the disclosure regarding the working capital requirement and 30 statements were identified comprehensively.

The paper is organized as follows: Section 2 describes the literature review on the relevant IPO issues. Section 3 presents the sample selection and methodology. At the end, section 4 discusses the results, conclusion along with the limitation of the study and recommendation for further research.

Literature Review

Capital market attracts the interest of everyone be it investors, issuers or researchers. Empirical and conceptual studies addressing different areas relating to primary market have already been carried out in the past by the academicians and researchers in different countries. The following section presents the review of the studies relating to the use of proceeds and the disclosure index for IPO.

Use of IPO Proceeds

While going through the available literature in the area of use of proceeds, it was observed that many researchers have categorized the use of proceeds of IPO for firms in different countries. Wyatt (2014) extended the literature on use of proceeds for Australian firms and classified them in to growth investment (R & D, Exploration), Production investment (Capital expenditures and acquisitions), Financing transactions (Working capital, repay debt, cash out). Adananet *al* (2017) categorized the uses of the IPO proceeds disclosed in the prospectus for Malaysian firms and identified that majority of the firms in Malaysia issued the IPOs mainly to financing for investment, debt repayment and working capital financing. Recently, Ahmad-Zaluki and Badru (2021) conducted one more study for Malaysian firms. They not only classified the motives of IPO but also established the relationship between the uses of proceeds with the initial returns. They found that intended use of IPO proceeds for growth opportunities and working capital was positively associated with IPO initial returns, whereas debt repayment was negatively associated with IPO initial returns. Amor and Kooli (2017) categorized the use of proceeds debt repayment, investment, marketing and sales promotion, and general corporate purposes.

In the present study, the objectives of companies selected for the analysis were classified according to the seminal research of Wyatt (2014). The detailed discussion on the same is presented in the analysis section under the heading of Categorization of objectives.

Disclosure Index for IPO Prospectus

When the prior empirical studies in the area of formation of disclosure index for IPO prospectus were reviewed, it was noted that majority of the disclosure indices were in relation to the voluntary disclosure by the companies in the area of intellectual capital (Bukhet *al* (2005); Bhatia and Agarwal (2015); Singh

and Mitchell Van derZahan (2009);Rimmelet *al* (2009)).

A study by Bukhet *al* (2005) was the pioneer study on measuring intellectual capital disclosure in IPO prospectuses for Danish firms. They developed a framework of 78 items for disclosure index. Bhatia and Agarwal (2015) adopted the 78 items disclosure index developed by Bukhet *al* (2005). They used the sample of IPOs listed on Bombay Stock Exchange and/or National Stock Exchange and constructed intellectual capital index. Singh and Mitchell Van derZahan (2009) constructed intellectual capital disclosure index (81 items) for IPOs listed on Singapore Exchange. Rimmelet *al* (2009) analyzed the prospectus of Japanese firms and applied a disclosure index consisting of 78 items.

From the above mentioned studies, it may be observed that there are studies conducted for Indian as well as international companies. All these studies have developed intellectual capital disclosure index. No studies, to the best of one's knowledge, have examined the disclosure with respect to working capital disclosure in IPO Prospectus by Indian or International firms. This will be the first study of its kind to apply the content analysis for working capital disclosure index. Thus, the present study extends the scope of the extant literature and presents an extra index for the investors and managers to evaluate the use of IPO proceeds. The systematic approach for developing such index is discussed at length in the following section.

Methodology

This section discusses the sample selection method and data collection process.

Sample Selection

The companies which came out with IPOs and were subsequently listed on BSE from 2009-2010 to 2013-2014; were selected for the study. The year-wise details of the IPOs and the final sample selection is presented Table 1.

Table 1: Short-Listing of Sample

Year	Number of Companies Which Floated IPO
2009-2010	42
2010-2011	61
2011-2012	38
2012-2013	32
2013-2014	38
Grand Total	211
Companies Excluded Due To:	
Less: Follow-on-Offer	09
Less: Withdrawn	11
Less: Data not available	10
Less: Financial Services	109
Final Sample Size	72

(Source: Researcher's Compilation)

Thus, 139 companies were removed from the sample due to the reasons as mentioned above. Judgmental sampling technique was adopted for the study. The

distribution of companies across various industries is explained in Table 2.

Table 2: Sample Description

Type of Business	Count	Type of Business	Count	Type of Business	Count
Agriculture	2	Agrochemicals	1	Aluminum	1
Apparel	1	Bags and Cover	2	Cable	4
Chemicals	2	Commodities	1	Construction	1
Cosmetic	1	Disposable Plastic	1	Electronics	1
Food	1	Generator	1	Health	1
Infrastructure	4	Iron and Steel	5	IT outsourcing	1
Jewellery	4	Kitchen Equipment	1	Laminates	1
Liquor	1	Logistics	2	Material Handling	1
Mechanical Projects	1	Metal	1	Online Trading	1
Paper	2	Pharmaceutical	2	Pipes	2
Power	2	Print and Packaging	1	Real Estate	2
Recycling	2	Silicates	1	Technology	3
Textiles	9	Tours and Travel	1	Waste Management	1
Total	32	Total	20	Total	20

(Source: Researcher's Compilation)

In the span of five years selected for the study, companies from different sectors had rolled out the IPO. Companies belonging to textile and infrastructure sector floated highest number of IPOs during the period of the study.

Data Collection Process

The content analysis (Terry College of Business, n.d.) methodology was adopted for the study. The study is exploratory in nature, because each of the objects of the issue was explored in detail and later categorized in different motives for issuing IPOs. The objects of the issue mentioned in the prospectus were analyzed using proper coding method. The research approach was based upon close scrutiny of prospectus or offer document. Prospectus of the IPOs were downloaded from the websites of Bombay Stock Exchange (BSE), Securities and Exchange Board of India (SEBI) or respective company's own website. Data was exhaustively managed in Excel 2007. Horizontally, the broader title was assigned under which the like type of objectives were pasted vertically in excel sheets with the description and amount in the next column. Each broader title was colour coded so that there is no mistake in pasting the objectives under appropriate head. The data analysis was carried out using tabulation, percentage frequency count. Functions such as Sorting, Filtering and Conditional formatting were used frequently for better interpretations of the data.

Results and Discussion

The content analysis of the prospectus was as follows:

Categorization of Objectives

As discussed in the literature review, the literary work of (Wyatt, 2014), categorised the use of proceeds as Growth Investment (consisting of Research and Development and Exploration), Production Investment (consisting of Capital Expenditures and Acquisitions) and Financing Transactions (consisting of working capital, repay debt, cashout and purchase of securities). In the Indian context, it was noted that companies raised money for production function (34.41%), financing function (20.75%), growth function (0.25%), which almost matched the criterion suggested by Wyatt (2014). In the Indian context, three new categories emerged in terms of objects of the issue. 19.25% companies highlighted that it raised money for general corporate purpose and the sub-detailing of the issue of proceeds were not stated in all prospectus. 23.23% reported that it raised money for issue expenses and 2.11% qualitatively suggested that the issue was brought out for listing purpose i.e. Stock Exchange Function, which in fact the end result of the IPO and may not be explicitly stated in the prospectus.

Year of IPO

Out of 72 companies that mentioned working capital financing as one of the objectives in the IPO prospectus, three companies brought out its IPO in the

year 2009; 26 companies came out with IPO in the year 2010 and 19 companies floated IPO in the year 2011. In the year 2012, five companies came out the IPO; in the year 2013, 14 companies rolled out IPO and in the year 2014 five companies spun out IPO. Year 2010 was a blockbuster for IPOs and the markets were very bullish post sub-prime mortgage crises (Kaushik, 2011).

Sector of the Company

From the short-listed 72 companies, 63% were engaged in manufacturing and trading sector (45 companies) and 37% companies were in to service sector (27 companies). It may be inferred that more number of companies were engaged in manufacturing and trading activities, which are not only the direct job spinners for the economy but also generates multiplier effect by generating two-three jobs in the services sector (Confederation of Indian Industry, n.d.).

Prospectus Referred

The prospectus of 62 companies (86%) was referred for the study. Ten Red-Herring prospectus (14%) of the company were examined for the study. The red-herring prospectus is devoid of price or number of shares offered by the company to the public. The details pertaining to the objectives were easily available from any type of prospectus.

Type of Issue

53 companies (74%) had floated Book-Building issue and 19 companies (26%) had floated fixed price issue. Under the fixed price method, the price at which the shares would be offered is pre-decided and communicated to the investors at the time of IPO. Under the Book-Building method, the floor price and the ceiling price i.e. price band is fixed. The price at which the shares would be issued to the investors is known once the issue is closed. Thus, Book-Building helps in efficient price discovery when the book is

being built and hence it is most preferred method (National Stock Exchange, n.d.).

Number of Objectives

In the prospectus the companies mentioned the objectives of the issue. It was observed that on an average company listed five objectives. Maximum companies listed five objectives. Maximum numbers of objectives stated by the company were 12. In majority of the cases the company stated the amount for each objective and hence it may be treated as objectives with details. Considering the total objectives of all 72 companies, it was noted that 324 objectives were with details. Some of the companies had mentioned the objectives, but it did not quantify the objectives and hence it was treated as objectives without details. Overall 22 objectives were without details.

Formation of Disclosure Index

Financing was one of the important functions as stated in the prospectus. Indian companies often raised money for managing working capital requirement, repayment of debt or investments in subsidiary or purchase of securities i.e. investments in other companies. Estimation of working capital requirement in itself requires detailing such as components of working capital, holding period of each component, assumptions involved in the computation etc. Considering the depth involved in the working capital estimation, the disclosure index for the same was decided to be computed. For constructing the disclosure index, each company was assigned a score of 1 for the item disclosed and 0 if the item was not disclosed. To construct the disclosure index, the total score obtained by the company was divided by the total number of items.

$$\text{The formula for Working Capital Disclosure Index (WCDI)} = \sum_{i=1}^n d_i/M \times 100$$

d_i expresses the item, with the score 1, if the item is disclosed in the prospectus and 0 where there is no disclosure. M refers to the total number of items being

measured, which were 30 in case of working capital. The statements for such items are presented in Table 3.

Table 3: Items of Working Capital Disclosure Index

Sr. No.	Disclosure Item	Companies making disclosure (%)
1	Absolute amount of working capital is mentioned.	99%
2	Portion of net proceeds used for working capital is mentioned.	59%
3	Working Capital is needed as company is expanding.	93%
4	Working capital has raw-material component.	71%
5	Working capital has work-in-process component.	44%
6	Working capital has finished goods component.	58%

7	Working capital has sundry debtors component.	89%
8	Working capital has other auxiliary material (such as other consumable stores, spares, gifts, packing, earnest deposit etc.).	63%
9	Working capital estimation jointly depicts the amount of stock (raw material, work in process and finished goods).	25%
10	Cash and bank balance is included in the computation of working capital.	34%
11	Working capital has details of creditors and other current liabilities and provisions.	86%
12	Finished goods export amount is mentioned.	7%
13	Working capital has export debtors mentioned.	4%
14	Working Capital is estimated by Chartered Accountant or Statutory Auditor.	8%
15	Holding Period of raw-material is mentioned.	67%
16	Holding period of WIP is mentioned.	45%
17	Holding period of Finished Goods is mentioned.	55%
18	Holding period of Debtors is mentioned.	84%
19	Holding Period of Creditors is mentioned.	84%
20	Projection for working capital is for at least 2 years.	37%
21	Amount of funding of Working Capital from internal accruals is mentioned.	77%
22	Projection of additional or incremental working capital is done.	41%
23	Holding period is estimated by management based on the existing business operation.	59%
24	It is stated that the estimate of Working Capital calculation is based on assumptions.	60%
25	Requirement of working capital is assessed based on internal management estimates.	90%
26	It is mentioned that the working capital estimates are not appraised by bank or financial institution.	36%
27	It is mentioned that working capital is estimated based on industry practice.	4%
28	Working capital is estimated based on past trend.	59%
29	Justification of holding period is mentioned.	19%
30	Amount raised for margin money for working capital requirement is mentioned.	21%
31	It is stated that the IPO proceeds is for margin money of working capital.	21%
32	The break-up of working capital requirement is clarified as estimated bank finance, IPO funding and internal accruals.	82%

(Source: Researchers' Output)

From the table 3, it may be observed that amount of working capital to be raised through the public issue was disclosed by the majority of the companies i.e. 99%, while the least declared item was estimation of working capital based on industry practice (Four Percent). Very close to the amount of working capital, there was another item i.e. working capital was needed as company was expanding. 93% of the companies declared this in the prospectus. As discussed earlier, companies may have different objectives for IPO and meeting the long term working capital requirement is one of them. During the content analysis of the prospectus for working capital, it was observed that if the working capital requirement was not for meeting the margin money; it was for meeting the long term working capital requirement as the companies were expanding their operations. For 21% of the companies, the working capital was required to meet the margin money and accordingly the amount for margin money was also mentioned.

Further, many of the companies declared the estimated investments in debtors and creditors along with the holding period. There were few companies (19%) who went a step ahead and also mentioned the justification for the holding period of inventories, debtors and

creditors. The close inspection of the details revealed that there were very few companies (Four Percent) which were in to international trade more specifically exports; and they clearly mentioned the export debtors component along with the domestic debtors. Similarly, such companies also mentioned finished goods export investment as a part of working capital.

As far as the inventories are concerned, many of the companies (71%) disclosed the raw material component and 67% of them mentioned the holding period of raw material inventories. While going through the details of the prospectus for working capital, it was observed that 25% of the companies jointly mentioned the estimated investments in the inventories, without bifurcation of raw material, work in progress and finished goods.

There were 34% companies which have included cash and bank balance in the estimation of working capital. 90% of the companies mentioned in their prospectus that the required working capital was based on management estimates. Only eight percent companies mentioned that this requirement was assessed by Chartered accountant or statutory auditor. 36% companies clearly mentioned that the working capital requirement was not appraised by any bank or

financial institution. Good number of companies (82%) were mentioning the break-up of working capital requirement as estimated for bank finance, IPO funding and internal accruals. 77% companies have specifically mentioned that how much working capital requirement will be met through internal accrual.

Further, 37% of the companies revealed the projected working capital requirement for at least two years. There were instances of the companies who have mentioned one year audited and one year estimated

data for working capital. While there were companies that have provided three years projections for working capital. These projections give a fair picture of the companies' expansion plans to the investors and support the funding for the cause.

In addition to the percentage of the companies making disclosure, the study also analyzes the frequency of working capital disclosure items by 72 companies. The same is presented in table 4.

Table 4: Frequency of Companies with Working Capital Disclosure

Class Items	Frequency	Percentage
0 to 5	0	0%
6 to 10	8	11%
11 to 15	16	22%
16 to 20	36	50%
21 to 25	12	17%
26 to 30	0	0%
Total	72	100%

(Source: Researchers' Compilation)

It may be observed from the table that out of 30 items considered in the study, 16 to 20 items were disclosed by 36 companies i.e. 50% of the total 72 companies. None of the companies were disclosing more than 25 items. As discussed earlier, there were few companies in the sample which described the facts regarding the requirement of working capital more comprehensively. For example, normally the companies that require long term working capital requirement mention the projected investments in current assets and liabilities along with the holding period. However, there were 12 companies in the sample, which even provided the justification for the holding period considering the nature of the business operations and the requirement for expansion.

Limitations and Scope for Future Research

The present study involves only those companies which came out with the IPOs during the span of just five years i.e. from 2009-2010 to 2013-2014. Hence, the sample for the study is restricted. The span of time may be increased in order to accommodate

more number of companies. The disclosure index has been prepared only for working capital function which is a sub-part to the main financial function. The disclosure index may be prepared for other objects of the issues. A separate disclosure index may be prepared for companies or institutions which are involved in core financial activity or financial services.

Conclusion

The study presented a new tool for the investors and the managers of the companies rolling out the IPOs in India i.e. Working Capital Disclosure Index. Many companies in India launch IPOs to meet their long term working capital requirement or margin money for working capital. All the Indian companies follow SEBI guidelines when it comes to disclosing the information in the IPO prospectus. However, the study found that there were variations in the amount of information disclosed for working capital financing and this may be signaling towards future cash flow uncertainty. The 30 items scale developed in the study may be considered as a step to develop further disclosure index and the relationship

between such indices with the stock market performance and long term operating performance may be checked for more robust results.

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Revitalising Advent of Social Stock Exchange in India: Critical Reflections on Operational Model and Key Considerations for Social Impact

Nidhi U Argade, Kalpesh Purohit

Abstract

In India, a revolutionary, yet a dreamed, measure in the form of Social Stock Exchange (SSE) has been given shape to put one step ahead towards overall upliftment of the deprived and disadvantaged segment of the society.

The functioning of SSE shall provide a new trading platform to many Social Enterprises (SEs) and allowing them to generate needed capital to be deployed for legitimate social welfare of the deprived section of the society. The proposed regulatory framework has provided for various contemporary instruments with which eligible SEs will be able to satisfy their fund requirements. There are 15 broad social activities proposed by SEBI, indulging with the same, with a minimum benchmark of 67% of its coverage, would make SEs eligible to use the prescribed platform of SSEs. The designed platform of SSEs shall provide enhanced market access to operators and an improved impact investing to the investors also protecting their genuine economic interest.

The paper is aimed at developing structural and operational model of Social Stock Exchange in India. It also highlights some core and vital dimensions of creating Social Stock Exchanges such as its expected performance, operational modalities, major obstacles and challenges in terms of spread of an idea, accumulating needed resources and generating an environment of mutual trust among the stakeholders on a common platform.

Keywords : Social Stock Exchange, Social Organisation, Social Finance, Impact Investors, Social Responsibility Investing

Introduction

The social system of any state reveals concerns and performance of remaining systems of the country. The actual evaluation of social system ought to be on efforts put by state for social welfare, the welfare, in particular, of the deprived. The rationale for such concern is pillared upon an accepted phenomenon that the social sector is a powerful force that can empower the population and fight against an evil of Poverty, Illiteracy, Unemployment, Climate change problems and many other socio-economic issues. The welfare of the society certainly reduces the perils that has been mainly apprehended to the deprived and disadvantaged section of the society relating to health and hygiene, livelihood, education, gender equality, sanitation and such others humanitarian causes. The biggest democracy of the world, India, has been lagging far behind, as compared to not only some developed countries but, unfortunately, as compared to some of the developing countries of the world map, (KPMG Report 2020) with regard to its allocation of resources/ expenditure on education and health, in terms of its percentage of GDP. The reported trend of allocation of resources creates an inevitable need for participation of social and voluntary organisations to meet with these developmental challenges of the country. Taking deserving cognisance of the unfulfilled gap of aspired social enrichment, the Union Budget 2021-2022 proposes 137 per cent hike in health expenditure as compared to last year for strengthening efforts for preventive as well as curative health and well-being. However, the same budget proposal has curtailed expenditure on education by nearly 6 per cent as compared to the last year. The resource scarce countries across the world have felt need to have forgoing partnership with private sector and social organisations to effectively functionalise the skeleton of the needed resources. There are various entities functioning in the social sector such as non - profit making organisations, non - governmental organisations, voluntary social service organisations of communities and social enterprises with the primary objective of achieving the aspired noble goal of social enrichment. The legitimate social concern of the government was given shape by SEBI through realising formal approval for the creation of Social Stock Exchanges on 28th September, 2021. It has been prescribed that these entities shall have to incorporate non-profit concern and even when profit concerning organisations are also having the suggested financial inclusion, they shall have to remain in the periphery of social enterprises. The new inclusion shall be state governed funding platform which shall enable mobilisation of resources towards welfare of the deprived.

The intension of the state does not create any apparent entry barriers and keeping the said platform open for all Social Enterprises. However, they shall have to pass through the public benefit test that may consist, mainly, three filters, related to targeted population, activities pursued and related volumes generated in them. It is also prescribed that any of the social welfare activities, out of 15 broad categories specified by SEBI Report 2021, the social enterprise is permitted to show its probable focus. An additional caveat of 67 percent of social enterprise activities has been imposed for it is being eligible to use SSE platform.

It is expected from the operators of the proposed platform to eliminate any

kind of ingenuine conflict of interest which may be adversely affecting the deprived segment of the society. This can be served with conventional framework, less ambitious but healthy practises.

Comparison of Working Models of SSE of various Countries across the Globe

Globally, Social Stock Exchange (SSE) is, even though, a growing concept but develop countries have started setting benchmarks with regard to its evolution and growth. For example, United States shown its legitimate concern for investment avenues since 1995 and it has grown at a compounding rate in the time span of 25 years. The impact investments in US has grown from \$12 trillion in 2018 to \$ 17.1 trillion in the year 2020-21 which is an increase of 42%. In other words, it is representing 33% of total assets of United States under professional management.

India is yet to get momentum in its growth story in the social sector space and probably requires proactive concern to promote the concept of SSE. The working model of those countries that have launch the platform unfold certain legitimate issues to get it established and set it going with momentum in India. To elaborate the few **Canada Social Venture Connexion (SVX)** opened in the year 2013 and supported by the Government. It is an online platform that uses public funding and private placement to support fund raising by impact investment ventures. Similarly, Singapore opened the **Impact Investment Exchange** which is again pillared upon a public funding model that permits mature Social Enterprises to raise capital by issuing securities to a larger group of investors on a public platform which facilitates trading in listed securities, including equity and bond instruments. It provides exposure and foundation to recognised impact investors who are looking for transparent and liquid investment opportunities. The SSE of **United Kingdom (SSX)** is serving as a catalyst that provides list of social organisations for investors to have investment. It does not provide trading platform but certainly instrumental as a research platform that helps connect potential impact investors with social organisations. South Africa has **Social Investment Exchange (SASIX)** which was setup in the year 2006 and works like a conventional stock exchange that allows ethical investors/impact investors with a very little denomination and allow tax benefits too. The investors can select social avenues based on project type, sector and province. The platform keeps track of the accomplishment of projects and the corresponding impact generated. Worldwide, Brazil, Portugal, South Africa, Jamaica, the UK, Canada & Singapore have step into the design of SSEs. However, only four states namely Jamaica, Singapore, United Kingdom and Canada have SSEs functional in present times.

Key Terminologies

✓ Social Enterprises (SEs)

It is a too generic term as it, in general covers all those businesses and non-business entities that has concern for social welfare and whose acceptance is depending upon the contribution made by them at the stated fronts. However, with reference to the present context, it includes all those organisations that have been actively deploying resources for common social welfare and devoting efforts for social services such as housing and education, environmental protection, public healthcare etc. They do not completely ignore profit element in the activities; however, it is always acts at the secondary level.

✓ Impact Investment

Impact investment means deploying resources into business entities that have been incorporated with an objective to devote efforts for making contribution towards generating positive and fruitful impact on social, economic and environment fronts along with financial returns.

✓ Impact Investors

Impact investors, in India, in particular, covers individual and institutional investors who have primary concern to promote non-profit based businesses through providing capital resources. They provide fund for promoting industries that has core concern for social welfare such as renewable energy, healthcare, education, agriculture, housing etc.

✓ Sustainable Development Goals (SDGs)

The term has been defined and adopted by all states of US in the year 2015 that gives a universal call to the whole world to work for welfare, peace and prosperity that mainly includes No Poverty, Quality Education, Good Health and Wellbeing, Clear Water and Sanitisation, Affordable and clean Energy, Industry, Innovation and Infrastructure etc. The statement of SDGs has a proposed target for their realisation by the year 2030.

Proposed Model – Strategic and Operational Model

The very construct to have Social Stock Exchange needs to be pillared upon certain concrete design that should have components to provide Regulatory support, Concurrent evaluation and Operational framework to implement statutory dimensions and monitoring functioning/performance on a regular basis. The strategic vision can be actualised through the prescribed proposed statutory framework that may narrate the vary cause for existence and functioning of

the SSEs. The component of the design also formulates legislative ambit and provides for compliances for smooth operationalisation, control and governance of SSEs.

In line with the proposed idea, SEBI, vide its announcement on 28th September, 2021 approved inclusion of non-profit making organisations and with some caveat, even profit motive setups as permissible operators on SSE. An appropriate ministry of the central government shall *constitute a board* that may have nomination of some of its members who have sound knowledge and background of Judiciary, Finance, Economics and Social Welfare.

The second layer shall have proposed focus on operational aspects which in particular works for establishing and implementing strategic intent as laid down by the statutory framework. It provides for operational parameters against which the third layer would carry out control functions. SEBI has announced 15 broad categories of social welfare activities and has specified that at least 67% of activities of SEs should fulfil the prescribed noble objective for it is being qualified as an operator of the proposed fund-raising platform.

The third layer shall ensure appropriate superintendence and control of the legislative boundary prescribed for functioning of SSEs. It functions on a concurrent basis to ensure compliance of norms, procedures, formalities with their due properties. It is proposed that the listed social enterprises shall have choice to raise fund through equity, zero-coupon bonds, mutual funds, social impact funds, and development impact bonds. However, with a view to dilute concern for monetary reward, the regulatory body may restrict payment of dividend by such social enterprises for initial few years. In order to serve the purpose reasonable restrictions shall be imposed on listed SEs to ensure compliances, due diligence, reporting as well as disclosures. To boost operations of such listed Social Enterprises, they will be allowed certain tax benefits and in order to ensure transparency and integrity the government may prescribe for mandatory Social Audit by certified accountants.

India, in particular, does not have proven design and track record to promote and regulate impact investment, apart from giving rational direction to actualise CSR objectives and activities on the part of corporate entities. Therefore, it needs to develop a real time support system, within the proposed design of the Social Stock Exchange, which may facilitate in terms of ensuring contingent financial support, concurrent control through continuous evaluation of ongoing projects and transparent reporting of progress or otherwise of the same to the stakeholders. The

proposed '*Nodal Agency*' should have representation from corporate tycoons, who have proved their worth not only in terms of managing business entity successfully but equally unfold concern for social welfare through voluntary efforts for mankind. The said agency shall independently perform role in generating contingency fund, through mechanism of reserves and surplus, to support the dipping projects that are otherwise a fertile proposition and suffered adversely, for the time being, due to administrative incompetence or lacunas.

Furthermore, it should discharge constructive role by carrying out continuous evaluation of ongoing listed projects, on predetermined parameters, to ensure optimum allocation and uses of invested resources through impact investment. The Nodal Agency should be empowered to report necessary information about all or major ongoing projects, as the case may be, in order to appraise real time performance to all stakeholders. The proposed agency shall have independent identity, functioning and shall have suggestive role for other major components of this skeleton such as regulatory framework, operational design and control mechanism.

In order to have genuine value creation through assesses it is essential to have a *complementary component* in the design that may carry out functions related to providing guidance and support

to the potential investors to have successful entry in the stock exchange mechanism, carry out evaluation and certification for the proposed social projects looking for getting listing, under the light of preconceived parameters, primarily focussing on social welfare agendas. The agency should be legitimately empowered to issue 'Due Diligence Certificate' to the proposed projects upon fulfilment of predefined criteria. The agency shall function under the direct superintendence and control of the Regulatory framework designed for SSEs. The impact investors are required to report about any major events of the listed projects, including discrepancies and inadvertence, even after listing till their completion.

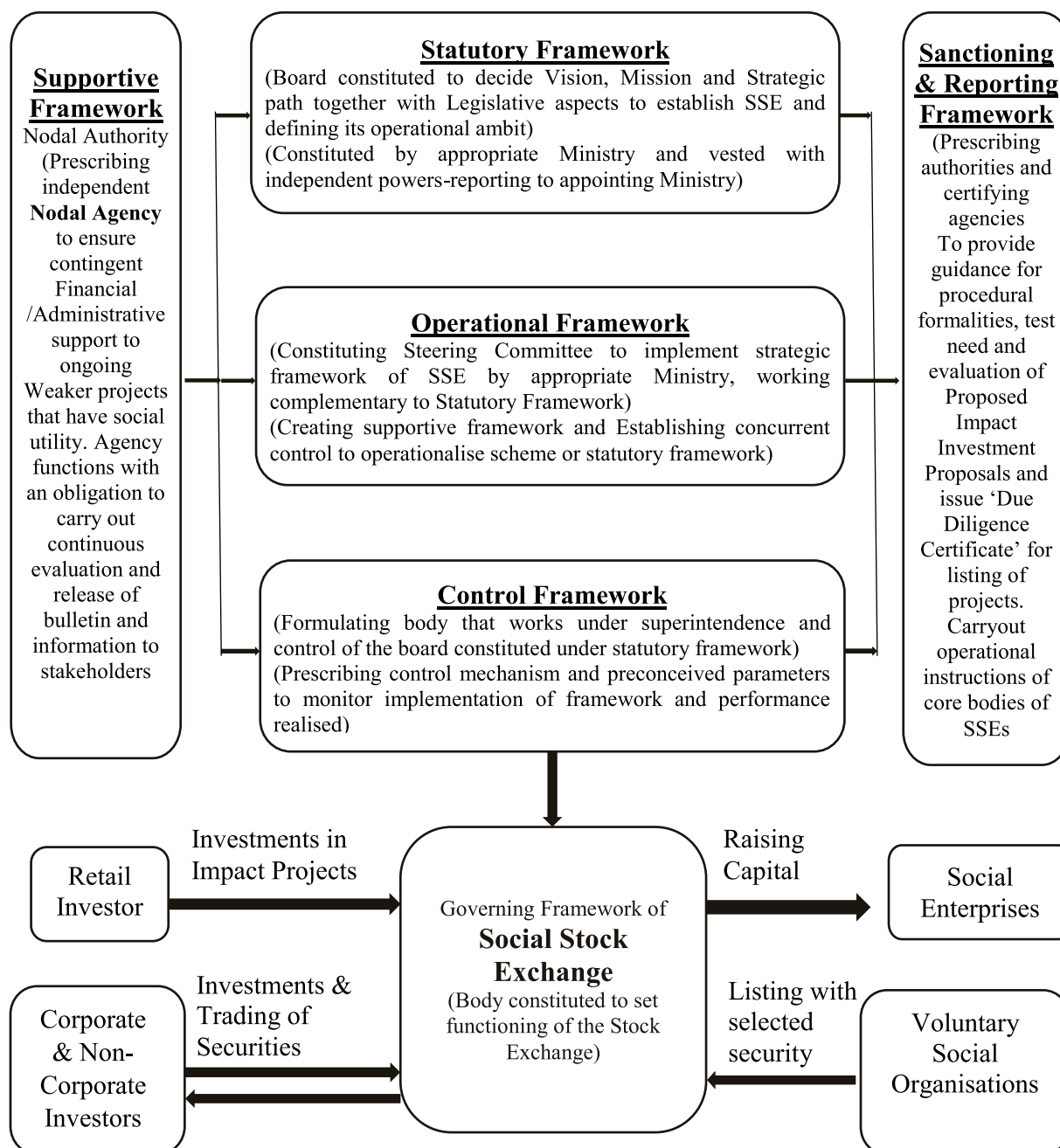
In order to facilitate Venture Capital inclusion in SSEs, Social Venture Fund (SVF) can be viewed as an appealing avenue for investment. The Technical group of SEBI announcement has proposed to allow 100% grants-in, grants-out in SVF. It has also proposed due reference to "muted" returns in the SEBI (Alternative Investment Fund) Regulations, 2012 that may be eliminated and the nomenclature of SVFs may be replaced to 'Social Impact Funds'.

The governing framework of SSEs consist of different activities, tasks, functions and jobs related with providing platform for investment and trading. It also

covers reflection of concern and promotion of activities related with providing opportunity for raising of fund to meet with social objectives. The SSEs create predefined mechanism for listing and trading of different types of selected securities such as

equity, debt instruments and other permitted avenues through funds. It is also proposed to ensure adhering predefined objectives with transparency and any attempt for *ultra virus* transactions to be curb *ab initio*.

Proposed Framework/Model for Social Stock Exchange in India [STRUCTURAL AND OPERATIONAL MODEL]



Challenges and Mitigation

A constructive thought, in a collective manner, is well deserved to ponder into various issues, challenges together with mitigation strategies, related with successful launching and operationalisation of the model. Following may be the major issues required to be address with appropriate proactive provisions to avoid obstacles in successful functioning of Social

Stock Exchanges in India:

1. Since socio-cultural variables differ nationwide, the social need or good is also different to different civilised society. What may be the deserving avenue of social investment in one nation may not be always found appropriate to a particular nation. Therefore, in India, the policy statement should unfold parameters and

narration to cover organisations within the ambit of a social enterprise.

2. Another area of challenge is to ensure conceptual and operational clarity on the part of entities, with regards to complying with standing guidance such as permitted avenues for investment, pre conceived social impact and welfare, meeting with financial expectations of the involved participants etc. Along with defining the scope of Social Enterprises, as mentioned earlier, it is essential to clarify their role in terms of clarity of objectives, Social and environmental impact/ benefits generated, financial requirements and transparency.
3. The proposed model of SSE involves many aspects like statutory, operational, appointment of nodal agency, guidance for procedural aspects to the players, issuance of due diligence certificate, evaluating social and environmental benefits along with financial returns and maintaining reserve fund to support the impact projects. All these aspects require fund which finally leads to transfer of the cost to SSE investors. These costs need to be planned and transferred carefully in order to avoid high transaction cost to the investors because it will be difficult for the small players to bare this cost and which may hinder their participation in SSE.
4. The novelty feature of the proposed model is to have supportive frame work in terms of constitution of 'Nodal agency' to facilitate the participants and operators in addition to provide inputs to the regulatory bodies. The nodal agency should have nomination from variety of fields that may include finance, law and judiciary, corporate and social welfare. There has to be clarity of role and functions assigned to the nodal agency, as it is going to be the most significant component of the supportive framework.
5. The crucial part of the proposed model is to develop parameters to carry out rational measurement of performance and comparison of the same with the pre-conceived objectives of social projects. The SSEs need to provide fair yardsticks that may not only measure financial results but equally through lights on accomplishment of social welfare, as may be claimed by participants while launching the social project. The deeper insight into the said proposition invokes some other vivid issues as in a particular project, the involved social sector, welfare objectives and the corresponding beneficiaries are going to be different and different projects may require separate evaluative framework to have performance

measurement.

6. In order to have fertile and sustainable functioning of SSEs, it is essential to clearly identify financial instruments that would be used for impact issuers and investors. It is equally obligatory to give constructive thought to the tax treatment likely to be generated out of operations. This requires government to integrate/ synchronise tax legislation with social sector to attract investors and promote the rational of SSEs.

Path ahead for institutionalising SSE in India

Having developed the strategic and operational model of SSE, the consequent crucial step is to shape an ecosystem for institutionalising and implementing this structure. The proposed model of SSE is a complex structure/framework with multiple components working in synchronisation like Statutory, Operational and Control framework, Nodal agency, Reporting framework, Impact Investors and Institutions. Furthermore, these components involve legal structure, tax structure and finalisation of the project having Sustainable Developmental Goals. Institutionalising SSE requires comprehensive support system to facilitate registration process of social enterprises, capacity building of these enterprises, providing breathing funds through nodal agency and to comply with reporting framework in terms of social, economic and financial goals. The structure of SSE should ensure providing an investor and investee friendly environment with transparent and clear frameworks and policies.

The key stakeholders in SSE would be Government, regulatory bodies affiliated to government, legal bodies, Social enterprises, members of nodal agency, rating and certifying agencies and impact investors.

In order to operationalised strategic intent of the proposed framework of SSE, certain preconceived principles deserve appropriate focus:

1. It is proposed to shape the model with central decision making in terms of policy resolution from an appropriate ministry of the central government that may encompass purpose and ambit of establishing SSEs.
2. With regard to various components and support system, it is proposed to have their constitution by the competent authority operating at the central government. This should have an enriching special feature to release autonomy, with regard to their functioning which is required to have monitoring and control mechanism through continuous reporting to the constituting authority.

3. The operational efficiency of the proposed model is pillared upon flexibility and adoptability of various components that are going to function in a synchronised manner which can be ensured through maximum possible autonomy in decision making coupled with concurrent control.

Epilogue

The design of SSEs, irrespective of the governing state, may carry certain operational constraints which is likely to be an avoidable fact with India too. However, in long run it is going to leave formidable social impact for welfare of the deprived. The said outcome may also remain as a major challenge in terms of its measurement, appraising return on investment and governing aspects for regulators as well.

The historical data on combined government expenditure (Centre and State) towards social services such as education, public health and hygiene, affordable housing, public transport etc, as a proportion of GDP has scaled considerable heights and moved from 6.2 per cent to 8.8 per cent during the time period 2014-15 to 2020-21. An astonishing aspect of the said increase of public expenditure is that it was having spread in all major social sectors. However, for a developing nation like India, where major challenges crop-up due to its population and in specific to make appropriate provision for bare necessities of human life. Government concern and efforts deserve support of social enterprises working towards social welfare. The rationale for the proposition is pillared upon the basic principle of economic that always remind us that the resources are always scarce and required to be put in to an optimal use to realise pre-determined goals. Funding through deploying sources of capital from organised and scattered sources of various segments of general public is of immense significance for upliftment of deprived segment of the society. Successful operationalisation of phenomenon of SSEs in India may be instrumental for shining sun for those who have been victimised through the grave hands of fate!!!

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Exploring the ICT Usage in Promotion of Rural Tourism in Himachal Pradesh, India: A Tourist Perspective

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ABSTRACT

Technological revolution has been the hallmark feature of Industrial Revolution 4.0. A large set of activities and business process are driven by technology. The present study is a quantitative analysis of 100 tourists travelling to the state of Himachal Pradesh mainly restricted to the lower belts of the state i.e. Kangra and Una District. In the present research only those tourists have been studied who are visiting the destinations which are closer to the gateway destination's and is covered under the IDIPT (Infrastructure Development Investment Program for Tourism). The results show more use of social media sites for uploading photographs and videos on the contrary most of the tourist visiting the state uses websites to see the properties but looks forward to book either directly or through most renowned website for hotel bookings. In the travel program lodging is mostly booked and rest all the activities and sightseeing is booked on the spot. The researcher would advise the policy makers to work on the principle of technology transfer, DfA (Design for all) and Kiss (Keep it short and simple).

Key Words:

ICT, Digital divide, Gateway destinations, DfA (Design for All)

Introduction: - Information and communication technology (ICT) may be defined as technology that is able to provide access to information through the use of telecommunications, such as the Internet, wireless networks, cell phones, and other communication media. In the current times it is very difficult to think of life without the use of ICT. ICT has also been credited with the potential to integrate world economies thus demolishing the barriers created by time and distance (Nehunge *et al.*, 2012).

Looking into the business environment, the structural characteristic of the organizations is changing, using ICT for their basic operations to strategic alliances for the well-being of organization and their employees. Thus, it could be said that relationship in the modern (business) travel value chain is a part of and is to be seen as a web of networks for value creation where all members in/of the travel value chain need to collaborate, co-produce, compete, communicate and converse among themselves to produce value experience.

The present era of internet technology for business is defined on the 3C Formula (Content, Community and Commerce) for success. Businesses need to create their own online content of the product, creation of online communities of identified target audience and in last make people use various online platforms to transact business online financially. The modern business operations and processes are largely driven by information technology. Travel has been at a forefront in the use of technology. The paradigm shift in the modern business activities has led to improvisation of the communication channels and created a systematic link among the members of the travel value chain. The diffusion of internet into the into the personal lives of the individuals through web enabled organizations selling products' online and tools available with the buyers has changed the search patterns and purchase behaviour of the people all around the world. Traditional channels of sales have been eliminated by online dynamic websites. As the new styles of travelling are fast emerging in the modern travel world like Solo traveller, couch surfers, whoof in etc. a great disparity exists among the modern tourist in search for authentic experiences from the rural background of the country due to so called "digital divide".

Literature Review: -

The review of research is more focused to the general gaps in the technology adoption due to large number of factors, later more focused and précised towards the tourism industry adding the dimensions of rural tourism environment to current topic of research. The work continues with the understanding of the features of the tourism industry making it one of the most **information intensive industries**. The decision in the tourism industry to select the destination or tourism product is information dependent, the reasons to say are the nature of tourism services ranging from intangibility to perish ability. The actual decision making of the tourist is made by the real information (which the tourist thinks of) if provided either by the Destination Management organizations', Destination Management Companies, Travel Agents, Tour operators, Hotels, Attraction owners, Cab Owners, Restaurants etc. or any other main party in the travel value chain either online or offline. The present study explores the relationship of variables in relation to the capacity and

capability of rural households for adoption and diffusion of ICT in rural tourism environment of Himachal Pradesh from a tourist's perspective. It extrapolates the gap in the previous research in the same subject and adoption of models in the similar research.

The current study is envisioned to evaluate the tendency of ICT usage by the tourists visiting the state of Himachal Pradesh.

Objectives of the Study: -

Evaluating the rationale of the study and the gaps identified allowed in constructing the following objectives.

1. To analyse the extent of general awareness (Computer and ICT) of the Tourists
2. To study the extent of ICT adoption (usage) by tourist visiting the state of Himachal Pradesh

Research Design: -

The research design selected for the current research is exploratory.

Sampling Design:-

The process followed for sampling design has been presented below: -

a) **Population for the study:** -All the visitors visiting the Kangra and Una district of Himachal Pradesh with the aim to visit the major tourist spots of these two districts have been selected for the collection of data.

b) **Sampling Technique:** - Convenience/ Judgemental sampling was used to collect the data from the tourists from gateway destinations.

c) **Data Collection:** - Primary sources have been at the core of the research work being exploratory. Secondary sources for data collection are from the reports of the Department of Tourism; Himachal Pradesh, Government Publications, Journals, case studies, etc. For the primary research data was collected through a well structured and designed schedule (questionnaire) for tourists.

Analysis and Interpretation

Objective 1: -To analyse extent of general awareness (Computer and ICT) of the Tourists The below table provides the mean values of all the questions with Standard Deviation.

Table 2 Mean Value Analysis for General Awareness (Computer and ICT) by Tourists			
Sr. No.	Extent of ICT adoption (usage)	Mean Value	Standard deviation
1	Basic Components of Computer like Hardware, Software, Netware etc..	3.2843	1.38862
2	Operating of computer like starting, shutting down, using software's etc	4.0392	1.20987
3	Using of computer components like Keyboard, Mouse, Printer, Hard Disk etc.	4.5784	2.84.43
4	Using of MS Office (MS word / Excel /PPT) etc.	3.6961	1.44735
5	Using of computer for Typing , Print out, Scanning, Camera, Data Transfer etc.	4.0490	1.2843
6	Using of antivirus tool for computer protection	3.7745	1.3636
7	Connecting internet to the computer	4.2157	1.1657
8	Mail Handling (Composing and sending of mails)	4.3039	1.1675
9	Sending messages through Whatsapp, Facebook Messenger etc...	4.7157	.70889
10	Social networking sites and its uses	4.5098	1.10575
11	Websites , Blogs , e newspapers, news portals	3.4608	1.68675
12	Various Mobile Applications and their usages	4.5098	.96210
Source: - Compiled by the author from primary survey results			

The mean value analysis depicted a result of 4.5784 which is more towards the extremely aware. This shows that tourists are using various ICT peripheral devices like Mouse, Keyboard and Printer in their day to day routine which shows that tourists know the usage of these components.

Social networking has been largely accepted by the people in the society with one of the most common and one of the easiest methods to connect to the world. Putting together the use of various platforms like

Whatsapp and facebook messenger, the mean value of the same shows (4.7157) which is, tourists are moderately aware about the same but looking into the results from all the other questions put together it can be ranked number one. Along with the same various social networking sites has been used by the tourist with mean value of (4.5098). That means social networking has brought a fundamental change in the lives of individuals.

Objective 2: To study the extent of ICT adoption (usage) by tourist visiting the state of Himachal Pradesh

Table 3 Mean Value Analysis for Extent of ICT usage by the tourists			
Sr. No.	Extent of ICT adoption (usage)	Mean Value	Standard deviation
1	I surf the internet for seeing/checking the travel resources online	3.8627	1.37185
2	I purchase travel related products and services online (pre travel)	3.6471	1.40471
3	I use ICT for communicating with service providers	3.5686	1.43858
4	I use ICT tools and technologies during my travel (online bus/train/flight/ taxi booking)	3.7941	1.29231
5	I prefer to use web check in facility provided by airlines(such as through website/application/e kiosk)	2.4608	1.66306
6	I prefer to use ICT for online financial transactions (service providers)	3.9118	1.35049
7	I prefer to use ICT for cancellations and refunds	3.5980	1.52380
8	I use ICT for submitting feedbacks (online reviews) to the service providers	3.4216	1.43807
9	I use ICT for checking online reviews given by the travelers to the various service providers before travel decision	3.4804	1.37683
10	I use ICT for creating and sharing online content (related to travel) through blogs, SNS, websites etc.	3.9608	1.39249
Source:- Compiled by the author from primary data results			

The above table depicts the extent of ICT usage by the tourists for travel and tourism purposes. ICT has changed the world how people see the things and work with the same to produce UGC (User Generated Content) to be placed on various social media sites. Now a day the tourist does not want to waste a single minute in placing the content on the social media. The mean value of 3.9608 shows that most of the tourists like to put the pictures and videos almost every time of their travel experiences on the online/social media.

Findings and Conclusion

The findings of the study revealed that tourists visiting Himachal Pradesh are savvy in using ICT and use it mostly for uploading content on social media sites. Thus it can be safely assumed that ICT is playing a phenomenal role in the lives of the individuals from general to professional use. Meta search engines and opinion websites like TripAdvisor has made a remarkable entry in the selection and choice patterns of the tourist.

On a synoptic front it could be easily said each and every thing is moving in and around technology. Technology is and will change the world into a new world which will be fully governed by technology dominance. In order to achieve a brighter future more action based research activities with bigger time line need to be adopted in the rural tourism area with technology adoption.

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Woman Directors and Firm Performance: An Empirical Study of Listed Firms in India

Harsh Tuli, Deepak Kapur

Abstract

Woman directors have been a topic of much research in the recent times. India's Company Act 2013 made at least one women director compulsory on the board of Indian listed corporations. The study tested whether having women on board impacts the firm's financial performance. The same was tested with a sample from National Stock Exchange index NSE 500. The study used dependent variables which were both market based (Tobin's Q) and accounting based (Return on Assets). The Independent variables included the ratio of women directors to total board of directors, a dummy for women directors and the exact number of women directors. The results upon analysis suggest a significant negative relationship between Tobin's Q and the dummy for women directors. Return on Assets did not have a significant relationship with any of the variables.

Keywords: Woman Directors, Firm Performance, NSE 500, Companies Act 2013

Introduction

According to data from the World Bank representation of women in the labor force has been a contentious issue. There has been a declining trend since the past decade in India. The 2019 figure is a dismal 20% of total labor force being females. For long gender diversity in the working population of India has been low. In the last few decades the society has changed with women moving from predominantly homemaker roles to bread earners and contributing in the households financially as well. This change is steadily happening and thus the demand for women representation across corporate levels is only increasing.

This figure just gets worse if we look at the top management of corporates. The boards have specially been male dominated arenas with a lot of big corporates having not a single woman director. According to a study by (Ruth V. Aguilera, Venkat Kuppaswamy, and Rahul Anand 2021) around at the time of the new companies' act 2013, 60% companies in the NIFTY 500 didn't have a single director on board. With almost no woman representation of women in the top management, a growing country like India made a change in the Companies' Act of 2013. The change made it compulsory to have woman representation on the board. Out of the corporates mentioned above by 2017, 83% added a single director to the board. (Aguilera, Kuppaswamy, and Anand 2021) Does this signify anything beyond conforming to the new law in place?

When the top management who drive the strategy not having any woman representation we are bound to have some form of disparity. But is making woman representation mandatory the way to go? Do we need to make reservations for woman directors on boards? Does having a women director change anything? How does the woman director influence the financial performance of the firm? These are some of the questions this study will answer.

There has been a constant debate and a lot research that has happened across the globe in the area Gender diversity in corporates and more specifically on boards. This is today a separate branch of research, trying to answer the question that does gender diversity on boards help in a firm performing better.

On a show with NDTV Editor in Chief Prannoy Roy the former IMF head Christine Lagarde had mentioned that companies with women on boards perform better. This study tries to find support for this statement to check whether presence of women director's increases the firm's performance In India following the Companies' Act 2013.

Women Directors and Firm Performance

Women directors and firm performance has been an active topic of research with studies across developed and developing countries. A lot of studies across developed nations across various time lines have highlighted different results. From studies (Erhardt, Werbel and Shrader 2003, Smith, Smith and Verner 2006, Martin-Ugedo and Minguez-Vera 2014) highlighting a positive impact of women directors on the firm's financial performance to studies (Rose 2007, Shukeri, Shin and Shaari 2012) which highlight no significant relationship between female board of directors and firm performance. Even in other studies that were conducted in emerging countries like Indonesia the results were divergent. (Asri 2017) highlighted

a positive relationship between the two variables, while the study by (Endraswati 2018) showed a negative relationship.

Making woman directors compulsory on boards have not been limited to India. Researchers have also tried to study the impacts of these reforms on firm performance. Following a similar reform in Norway in 2003, (Olsen, Schone and Verner 2013) have conducted a study to evaluate the impact of such reforms. The results however showed no significant impact of such reforms on the firm's performance. Another study by (Yang et al. 2019) found the relationship to be negative towards both firm performance and firm risk for Norway firms as well as control groups from Finland, Sweden and Denmark.

Studies (Papangkorn et al. 2019) specifying times of crises have pointed out that during the times of crises like the recession of 2008 the board with woman directors influenced the firm's performance in a positive way.

Our attention is more towards emerging/developing economies more specifically India. Even before being made compulsory in the companies' act 2013 a lot of attention has been given to diversity studies in India. In the study by (Chandrashekhar and Murlidharan 2010) a comprehensive account of women directors has been given in Indian companies during the years 1995-2007. The details have only led to the belief that women during these years have not had proper representation in corporate companies and boards. Extending the discussion (Jhunjhunwala and Mishra 2012) studied how diversity on the board impacted the firm's performance. The study was done on a sample of listed Indian firms for a single financial year of 2010-11. The results pointed at no linkage between the performance and diversity of the board. (Das and Dey 2016) undertook a more extensive study just after the announcement of the new companies act. The results highlighted that the presence of women directors had a positive impact on firm's performance variables yet the compliance of companies act had not been a 100% at the time. Another study over a longer period of time ie 2005-2015 by (Pavana and Mangalagiri 2019) also point towards a positive relationship between women directors and the firm's performance in Indian listed companies. On a deeper analysis by (Sarkar and Selarka 2015) it was found that women directors had a more profound positive impact on firm performance and value when they weren't tied to the promoter family but instead independent woman directors. Upon comparison of companies with and without women directors during the period before the announcement i.e. 2010-2014 it was noted that there is positive impact on firm performance in companies where women directors were a part of the board.

(Singh and Sinha 2016). There has also been a comparative study (Jonge 2014) between India and China in terms of the status of women on the boards of listed firms. The study highlights how boards in India are better off than China in terms of women participation. Also women in financial sectors and large sized companies tend to do better.

Even with such studies pointing towards the positive effect on the firm's performance not a lot has changed and this has been shown through studies by (Kishore 2019, Dave 2015). The study by (Kumar, Nigam and Singh 2020) finds a moderating relationship between women directors and stock performance of the firms. The study also highlights in its findings that there is low representation in corporate boards to have very tangible results. Sector specific studies done in India have given results which aren't very conclusive. The study by (Rawat and Sharma 2019) on the mining sector in India could not find any conclusive evidence of the relationship.

On pre and post comparisons between listed companies (Ballal and Bapat 2020) during a 10 year period the results suggest that women directors on the board negatively influence the accounting based variable of firm performance and positively the market based variable of firm performance. Another related study (Yadav 2017) using the variable of women director compensation and firm performance found a negative relationship between the two variables.

Thus this is an attempt to find if at all the governance reform in terms of presence of woman directors on board have worked out in favor of the firm's performance.

Sample

The period of study was from FY2014 to FY 2018. The new company's act was introduced in 2013 thus the period after it was the first time women directors were made a part of the board. The next 5 years provide ample evidence for impact to be measured in terms of the firm's performance. The sample consisted of companies that are a part of the National Stock Exchange NIFTY 500 Index. These are amongst the biggest companies in India in terms of size and market capitalization. The group is also a diverse group of companies from Industries ranging from telecom to oil and gas to mining

The final sample consisted of 157 companies. The companies belonging to the financial sector were excluded from the sample as they are regulated by guidelines of the RBI. Public sector companies were not included as they do not completely conform to the Companies Act 2013.

Variables

The dependent variable for the study was firm performance which was measured using a market based variable i.e. Tobin's Q and an accounting based variable i.e. Return on Assets (ROA). Using both market and accounting based variables are a common practice in firm performance studies. The use of both is done so as to cover the limitations of each of these variables. Both the variables Tobin's Q and ROA have been taken from secondary databases namely Prowess and Bloomberg.

The independent variable for the study was woman director representation. The same was measured in two ways one being a dummy variable for presence of

at least one woman director on board. Secondly the percentage of woman directors on the board was used. The data regarding board of directors and women directors was compiled using company annual reports for the 5 financial years from 2014-2018.

The control variables used in the study were size of the board, company size and industry. Leverage was measured as the ratio of the total debt by total sales. Company size was the log of total assets. For industry a dummy variable distinguishing service from manufacturing was used. The industries were divided into service and manufacturing companies so that the same can be used as a control variable in the regression analysis carried out.

Research Model

$$\text{Firm performance (ROA, Tobin's Q)} = \alpha + \beta_1 \text{Women Director} + \beta_2 \text{Woman Director Dummy} + \beta_3 \text{Industry} + \beta_4 \text{Promoter Ownership} + \beta_5 \text{Ln Board Size} + \beta_6 \text{Size} + \text{Error}$$

The following model has been used in the study. It is similar to the models that have been used

Variable	Obs	Mean	Std. Dev.	Min	Max
Woman Directors	768	1.152344	0.723219	0	5
Board Size	764	10.07068	2.369582	0	17
Tobin's Q	675	6.311204	6.320767	1.19	47.71
Promotor Ownership	756	53.91799	15.07934	13	81
Size	782	10.63939	1.278357	3	13
Return on Assets (ROA)	772	0.144909	0.026184	-0.06	0.63

by researchers across the globe.

The panel regression analysis was carried out using STATA 13.

Data Analysis

Table 1 Source: Author

The data descriptive in Table 1 suggest that the woman directors are especially low. The mean suggests that the listed companies are only doing so to fulfill the condition set under the Companies Act 2013. But the maximum also points towards exceptions which are very far and few. The reasons for the same can be multifold ranging from lack of will by the companies to a lack of qualified and capable candidates.

Even with large boards as is visible by the mean, the representation of women remains low. The high Tobin's Q values also highlight the good performance by the companies during this period. This also is reflected in the high growth of the Indian economy and the considerable higher return of the indices as compared to the developed economies. As per the figures in 2018 the BSE 500 had given 5% higher returns than US, UK and Hong Kong markets. This is

also reflected in these figures. As for the ROA figures they point towards business being asset light.

As for regression fixed effect model was run to test the proposed model. To move forward first the assumptions of heterogeneity and Endogeneity were tested. For testing heterogeneity the F value was used and as for endogeneity the Hausman test was run. The results pointed towards both being absent. To run the Hausman test and to test whether a fixed or a random effects model fits the panel data better, both the models were run and tested. Table 2 presents the fixed and random effects models. The p-value suggested the models were fit for the data other than Fixed effect model for ROA. Next, the Hausman test was conducted following which it was concluded based on the p-value being **0.0707(Tobin's Q)** and **0.1876(ROA)** that Random effects model was the right fit for the data both ROA and Tobin's Q.

Dependent Variable	ROA	ROA	Tobin's Q	Tobin's Q
Independent Variable	Fe	Re	Re	Fe
Size	-0.00696	-0.0119***	-0.563***	-0.562**
	(-1.76)	(-4.06)	(-3.34)	(-3.02)
Board Size Log	0.0148	0.0223	-7.871***	10.02***
	-0.36	-0.69	(-4.07)	(-4.73)
Woman Directors	0.0113	0.00766	0.776	0.507
	-1.05	-0.83	-1.53	-0.95
Woman Directors/ Board Directors	-0.13	-0.122	-7.532	-3.513
	(-1.42)	(-1.57)	(-1.76)	(-0.78)
Dummy for Woman Directors	-0.00774	-0.00434	-1.231**	-1.281**
	(-0.89)	(-0.55)	(-2.82)	(-2.85)
Industry	-0.0322	-0.0089	0.711	1.295
	(-1.64)	(-0.74)	-0.88	-1.37
Promoter Ownership	0.000666	0.000725*	0.0537**	0.0374
	-1.38	-2.49	-2.7	-1.52
Constant	0.213**	0.227***	17.44***	19.68***
	-3.22	-4.55	-5.89	-6.13
N	726	726	630	630
t statistics				
* p<0.05, **p<0.01, ***p<0.001				

Table 2, Source : Author

On further analysis of the random effects model analysis from table 2 the results were a mixed bag both for ROA and Tobin's Q. As for Tobin's Q, the dummy variable for the presence and absence of woman directors on the boards were found to be significant. But the bigger issue at is the coefficient being negative. This implies that making it compulsory isn't the way to go. Thus it is against the policy maker's view of presence of woman directors.

The other variables that were significant in the model were log of Board size, promoter ownership and size of the company. Thus the regression equation comes out to be –

As in the case of ROA only Size and Promoter Ownership were found to be significant. Whereas none of variables related to women directors were significant. These results point towards a deeper issue where women directors far from the public eyes do not have any influence on the firm's financial performance. It points towards the absence of any support to the policy of having woman directors on the board compulsorily. The equation of the model was-

The results are not in line with policy makers as the policy expects performance to become better with the presence of female directors.

$$\text{Tobin's Q} = (-1.231347) * \text{woman director dummy} + (-7.870677) * \text{Board Size log} + (-0.567287) * \text{Size} + (0.0536901) * \text{Promoter Ownership} + 17.43593$$

$$\text{ROA} = (-0.119033) * \text{Size} + (0.0007254) * \text{Promoter Ownership} + 0.2271448$$

Conclusion

The results signify that a compulsion to have women directors cannot suddenly create an influence on the firm's performance. The companies need to be given the freedom to choose the best and most suitable candidate for the post of director on the board. The contribution of women in the corporate workplace is far from being equal. This creates an environment where suitable candidates become far and few. Thus having a compulsion will only have directors being chosen from the same small pool of candidates that exist or for namesake purposes. This could lead to an impact on the firm's performance like the results of our study suggest.

In unequal societies like India it will take time before the tree starts bearing fruit. There is still a long way to go before women directors are able to command equality on boards and contribute constructively towards the firm's performance.

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Social Entrepreneurship: The Future of India

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Abstract

Social entrepreneurship has evolved from a purely voluntary corporate welfare framework to a necessary business strategy that will encourage organisations to create a long-term future. It has gained tremendous popularity among innovative technology-driven and socially responsible people all over the world, particularly among young people. Social entrepreneurship is a concept that refers to a form of social responsibility as well as a method of addressing a number of pressing societal issues. This paper's aim is to describe the word "social entrepreneurship." The required knowledge for this paper is derived from a number of research papers. As applicable to the study's goals, a literature review of secondary data resources is conducted. In India, an entrepreneurial mindset is resurfacing. India has always been entrepreneurial, dating back to ancient times. The aim of this paper is to shed light on the challenges and opportunities that the Indian social entrepreneurship scene faces. This paper also highlights influential social entrepreneur examples. The results of this study provide an exhaustive predictor of India's productive social business structure and optimistic future. The paper also recommends that if the government and other stakeholders are able to effectively resolve the challenges of social entrepreneurship, the most powerful tool with maximum potential to transform society in India will be undoubtedly social entrepreneurship.

Keywords: Social entrepreneurship, entrepreneurship, Social entrepreneur, development, social goals, NGO

INTRODUCTION

Social entrepreneurship means identifying a social issue and implementing business philosophies to accomplish the desired social change, make and accomplish a social project. "While a business person typically calculates profit and return efficacy, positive social returns are also calculated by a social entrepreneur". Social entrepreneurship accordingly focuses on further broadening social, cultural and environmental priorities. The voluntary and the non-profit industries are frequently aligned with social entrepreneurs, but profit should not be hindered. Social entrepreneurship with an international or global outlook is referred to as international social entrepreneurship.

Social concerns are the main subject of social organizations. Innovation is initiated by the application of available capital to establish social arrangements in response to social problems (Bulsara, Chandwani, & Gandhi 2014). Some people argue that social entrepreneurship is not only a strong catalyst in society, but also an agent of social change. They are committed to social value development and preservation, consider new possibilities and rigidly explore them, engage in the processes of continuous innovation, adaptation and learning. They act bravely without restricting themselves to the tools at hand and have greater democratic integrity. (Desai, 2001)

This article explores the social entrepreneurship in India and its future prospects. The paper presents the concept and meaning of social entrepreneurship as the concept of social entrepreneurship has shifted and Social Entrepreneurship has grown & continues to grow with time and needs in the world, from corporate philanthropy to nonprofit and now to self-sustainability. Further the paper describes the importance of social entrepreneurship for the development of India. The paper then explains the review of literature on social entrepreneurship in India to identify the research gaps and for framing the study framework.

After research gap identification, objectives of the study are established to further define the research methodology of the study. The paper also discusses the roles and responsibilities of social entrepreneurship for identifying the scope and opportunities in the field of social entrepreneurship. The paper further discusses the future of entrepreneurship in India and challenges faced by social entrepreneurship in India to reach to the conclusion of the paper given at the end of the study. The study will further make recommendations for future entrepreneurs.

CONCEPT AND MEANING OF SOCIAL ENTREPRENEURSHIP

Entrepreneurship is the technical application by a person or a member by start-up of a company to achieve growth while generating income, jobs and social goods of expertise, skills and/or aids (Potabatti, Boob, 2015). The Entrepreneur can be described as the one that maximizes opportunities (Drucker, 1964). In the end, he is the one who promotes a friendly atmosphere and skills determine entrepreneurial operation as per (McClelland, 1961).

Social entrepreneurs in India may be the founder, co-founder, or a head of a social enterprise, who can collect funds by offering services ("often fund building events and community activities"), and sometimes by making goods. He can be president, secretary, treasurer, chairman or manager, or chairman. The creation, promotion, financing, and guidance of social

entrepreneurs worldwide also play a vital role today for “non-profit, non-governmental organizations, foundations, government organizations and citizens”. There are more and more educational organizations which organize programmes based on social entrepreneur education and training (Seema, 2016). The social entrepreneurs are close to the agents who are bringing change to society, as stated by **Gregory Dees** “father of the social entrepreneurship”. The idea of social entrepreneurship means doing various things for various people and serving them with no personal motive (Dees, 1998).

“Social entrepreneurship is an organization with no benefit, and goals to build social values”, (Austin, Stevenson and Wei-Skiller, 2003; Boschee, 1998). Social Entrepreneurship uses start-up technologies and seeks social, cultural or environmental solutions. It aims in the fields such as poverty reduction, welfare and economic development, and also to advance social, cultural and environmental objectives. The use of internet, social media and blogs promotes social entrepreneurship in 2010, helping to collaborate online with people and raising funds through crowd financing. Various meanings of social entrepreneurship are provided by various people. We consider social entrepreneurship to be a time to find the potential for change and meet social necessities through imaginative and creative use.

The biggest difficulty is to know the exact essence of social entrepreneurship. Social enterprise is focused on the phrase “social necessities” (Seelos & Mair, 2005 a). The word “social” means programmes to support others (Prabhu, 1999). Social entrepreneurship focused on ethical motivation (Bornstin 1998; Catford 1998). Shan and Venkataraman (2000) define entrepreneurship as “an environment in which people examine how to produce products and services with what effect”.

STATEMENT OF THE PROBLEM (CONTEXT OF THE PROBLEM)

Social Entrepreneurship brings about a new paradigm, a modern cultural set up where everyone has an equal share of the growth and development. The current research is a modest attempt to discover what factors lead to the rise of social entrepreneurship, as well as the particular obstacles and contexts that influence the services that these social entrepreneurs provide to their beneficiaries. It necessitates individuals with a distinct set of abilities and qualities to take on the form of task that Social Entrepreneurship necessitates.

Social entrepreneurship brings in social change by proposing novel approaches to various issues. They use creative technologies to combat global poverty, hunger, illness, illiteracy, and other social ills. The study seeks to comprehend this distinction by elucidating how the social entrepreneur is a unique and

important type of leader and his roles and responsibilities. The study also seeks to identify the challenges faced by the social entrepreneurs in Indian context and their scope and opportunities in India.

THE IMPORTANCE OF SOCIAL ENTREPRENEURSHIP FOR DEVELOPMENT

For economic (and social) growth, social entrepreneur sector is increasingly relevant because social and economic values are created; few major social entrepreneurship development goals have been set below;

1. “Employment Generation”

Employment generation is the most apparent and biggest economic benefit created by social entrepreneurship. It comes under the most important category as it is shared with entrepreneurs and companies alike. Social enterprises create social sectors with work career and future training to curb employment problems

2. NPD/Technology Innovation

“Social companies are developing and introducing innovation which is essential for social and economic growth and developing new products and services”. Some of the major social issues discussed include HIV, mental ill-health, illiteracy, violence and substance addiction that are primarily inventively tackled.

3. Public Assets

In addition to economic capital, social capital for “poverty alleviation and sustainable human and economic growth are one of the most significant values generated by social entrepreneurship”.

4. Fairness

“Social entrepreneurship promotes an equitable and fair world by overcoming social problems” and seeking, through its social purpose, to achieve a continued sustainable effect rather than merely optimize benefit.

In short, social enterprises can be seen as a constructive power, offering advanced innovation for the fulfilment of social needs as evolving agents. “Social entrepreneurship does not constitute a panacea since it operates within the social and economic system”, but it is often neglected and needs a lot more attention from academic theorists and policy makers, since it begins at grassroots level.

REVIEW OF LITERATURE

Social Entrepreneurship

Saebi, Foss, and Linder (2019) noted in "Social entrepreneurship studies: Past successes and future promises" that there has been an increase in research interest in social entrepreneurship over the last decade (SE). As a result, key insights into the role of Social Entrepreneurship in promoting inclusive growth and systemic change have emerged. They (1) define gaps in Social Entrepreneurship research on three levels of study (individual, organisational, and institutional), (2) propose an integrative multistage, multilevel structure, and (3) address promising avenues for more Social Entrepreneurship research using 395 peer-reviewed publications.

Rawhouser, Cummings, & Newbert, (2019) in their study "Social impact measurement: Current approaches and future directions for social entrepreneurship research", note that Considering the significance of social impact in social entrepreneurship research, theoretical and empirical benchmarks for assessing an organization's social impact are lacking. They discussed the variety of social impact concepts, data sources, and operationalizations. They create a typology of four strategies to conceptualising social impact based on this research, which they used to organise ideas and suggestions for better measuring the social impact of entrepreneurial projects.

India is a major player in social entrepreneurs' growth (Bulsara, Gandhi, & Porey, 2013). Since people began creating social groups, social entrepreneurs have been around. It is presumed that entrepreneurs have an extraordinary capacity and imagination to leverage (whom others cannot predict) new possibilities, deep determination and a willingness to lead and to carry unknown risks. "They have the unique quality of out-of-the-box thinking and a unique commitment to make society newer".

"Social entrepreneurs play a similar role in the social economy to address social needs gaps that companies and the government left unfilled". They are not discouraged from fulfilling their dreams and purpose in life by their limited resources.

Huda and Associates in their study in 2019 performed a study titled "Towards cooperative with competitive alliance: Insights into performance value in social entrepreneurship. In Creating business value and competitive advantage with social entrepreneurship". The findings show that attracting increasing numbers of cooperative and competitive alliances should be bolstered in order to obtain input and insights into success value in social entrepreneurship, which is then combined with entrepreneurship in a way that underpins the value to run the potential company. This paper provided significant insights into the critical position of methods for providing beneficial input in

social entrepreneurship in order to perform quality improvement.

RESEARCH BACKGROUND AND RESEARCH GAP

While there are numerous researches on entrepreneurial activities with a social concern that have been developed and managed for the social development of the marginalised and poor in India, there is a paucity of literature in the area focused on research into the roles and responsibilities of social entrepreneurs in India.

The studies mentioned in the literature have looked into the activities of social entrepreneurship and attempted to describe what it is. It was also discovered that previous literature failed to understand why entrepreneurs are ineffective in dealing with the enormous social problems that exist in our society, and why the sector requires a more knowledgeable group of entrepreneurs who are well positioned and prepared to solve current social problems. This research project aims to fill this void in a modest way by learning about the development and concept of social entrepreneurship in India. As no systematic effort has been made to tackle this in a progressive globalized world in the context of factors of success and challenges that prevent the fostering of "social entrepreneurship in India", in spite of the increasing recognition of "social entrepreneurship" as the driving force for job growth, national development and socioeconomic change. Therefore, based on its bright future prospects, social business is accelerating throughout the country. Despite a range of opportunities for commercial growth provided by central government, the level of social entrepreneurship remained small. It will also be worth looking at the success factors and obstacles in India that hamper social entrepreneurship.

OBJECTIVE OF THE STUDY

The research focuses on fundamental goals. The objectives were chosen to take the relevance and logic of the subject into consideration. These are the goals to be achieved in this study.

1. To understand the fundamental framework of social entrepreneurship.
2. Emphasizing the social entrepreneurs' positions and obligations in India.
3. Studying the global position of social entrepreneurship and social enterprises as India's future.

RESEARCH METHODOLOGY

An advanced analysis of the recorded facts was carried out. This type of analysis aims to reflect current information on a particular topic by reflecting upon the most recent events in the area. There were three

sources of evidence: empirical, validated research and journal reviews, studies that have not been assessed by peers (e.g. policy studies), and large-scale business articles. Furthermore, technical texts on social enterprise have been analysed to provide an overview of social undertakings.

The technique of analysis used is descriptive in nature. Secondary data collection and analyses are performed solely for the purpose of the achievement of the identified research goals. The analytical data was derived from various secondary sources. Numerous articles and reviews have been cited here, including social entrepreneurship books. The goal of the study is to establish the simplest definition of social business; primary objectives have been taken into account through data collection and analysis methods.

SIGNIFICANCE OF THE STUDY

Despite government attempts of all countries and development forums, policymakers conclude that the income disparity is increasingly expanding, approaching a gap that cannot be easily bridged. The need of the hour is to highlight the efforts of social entrepreneurs on the entrepreneurial journey to make the world better; it will inspire those who choose to listen. Researchers from all over the world are becoming increasingly interested in studying social entrepreneurship in all of its forms of emergence and practise. As a result, the current research study is particularly important in India, where the subject is new and only a few academics have dabbled in it.

The paper will contribute to a better theoretical understanding of the concept of Social Entrepreneurship as it has been created and implemented by innovative leaders and entrepreneurs in India. Furthermore, grounding practises in a theoretical foundation will lend legitimacy to study practises. The paper can help to make people more aware of how to solve social problems and contribute to humanity's equitable sustainable development. It will contribute to the strategic organisational management growth and social value creation by defining and elaborating on the methods used by the social entrepreneurs in this report.

SOCIAL ENTREPRENEURS IN INDIA: SOCIAL ROLES AND RESPONSIBILITIES

As previously mentioned, India and similar communities provide the best grounds for prevailing and increasing social entrepreneurship. Social entrepreneurship in industrialized economies is limited because of minimal social inequality. On the other hand, in underdeveloped, developing and least developed countries, socioeconomic gaps are at their peak. While every entrepreneur's duties are highly prominent, they are unavoidable for social lifting when it comes to social entrepreneurship or social

entrepreneurs. As our experience has repeatedly taught us, it is only self-sustainable people who use entrepreneurial skills and management skills to achieve social benefits and non-personal income which can achieve social values, social gains and social changes. These selfless individuals are called social entrepreneurs. Social entrepreneurs' roles and responsibilities are provided as they relate to society in India. Social entrepreneurs are able to impact society through their special social lifting product/service. Their job starts with the recognition of the social issue that affects everyone instead of certain parts of society. Therefore, it is very important to define an adequate social issue. Social entrepreneurs in India face some mindset issues of people who don't want to change their ways. The main task of social entrepreneurs is to undertake structural improvements in society as a whole.

SCOPE AND OPPORTUNITIES OF SOCIAL ENTREPRENEURSHIP IN INDIA

Social entrepreneurship is a rising, multinational phenomenon. "Social work is no longer limited to advocacy". Today, not only the NGOs but also the domestic and foreign institutions as well as the social enterprises provide many resources for "child welfare, community policing, healthcare and therapy". In addition, social entrepreneurship and the introduction of your own social projects is enormous.

In bringing the rural masses of India to develop it will be necessary to undertake the analysis of social entrepreneurship factors, such as fair trade, which will form the philosophy of society. We will discuss the areas with problems in India, some of which are described below:

1. Make trained young people employable.
2. Accessibility to healthcare.
3. Urban and rural healthcare.
4. Using renewable energy sources.
5. Food for the needy and nutrition.
6. Accommodation is affordable.
7. Farming.

There are many more, but those are the fundamental needs of Indian society, and many policies and laws have been implemented by the State or the central governments of India, the subjects for debate over many years. However, it remains as it is! The view of desirable possibilities starts with all entrepreneurship practices. An enticing opportunity has the potential to justify time, energy and money expenditure.

It is a new concept which shows that social entrepreneurs are sometimes referred to as changers, which is typical of non-profit, government and industry. They build wide-ranging improvements through proposals and convince others to embrace them. It can be domestic or worldwide. The future

background is highly influenced by social entrepreneurship in India.

The overall economic growth of India will be booked even further by entrepreneurship generation in rural areas. Entrepreneurship refers to the creation or revitalization of a new company by leveraging new opportunities (Bakhetia and Dhillon, 2017)

A major factor that separates social companies from private profit-making firms is the objective to provide solutions to social challenges through the growth of companies, balancing competition and creativity with a passion for fostering social change (Sengupta & Sahay 2017b). At the same time, they are tasked with increasing human beings' market-oriented stability through the use of the goods or services involved (Sengupta, Sahay & Croce 2017), in order to reach their social objectives (Nicholls & Opal 2004).

The issue of social business has been well studied throughout the world. However, a careful study of social enterprise processes and systems in the West must be undertaken in the sense of Asian entrepreneurship, and in the context of emerging economies (Doherty et al. 2014)

Social entrepreneurship is not a novel idea, but in recent times the concept's positioning has expanded to new heights. After the government of India has made CSR more practical than a mere formality, businesses are now searching for their positions to support society in an economic and social way. (Rawal, Tripda, 2018).

Although the idea has undergone numerous developments, policymakers, experts and scientists still need to agree on social entrepreneurship concepts (Choi & Majumdar 2014).

As a result of growing evolution and economic development, social enterprise becomes the future of India (Tang 2000). The related relevance of social enterprise has been determined by this study, which emphasizes economic and social value growth. This stresses that social enterprises deal not only with basic problems, but also with fundamental issues. Social companies are responsible for development in the Indian scenario and are expected to provide them with opportunities to contribute to the Nation's socioeconomic development efficient and effective (Kopnina, & Blewitt, 2014).

"India hires 516.3 million people, though hourly salaries have more than doubled in India over the past 10 years, the latest World Bank report states that around 350 million people are now living below the poverty line in India (Shah, 2013)".

Every third Indian, with an approximately 1.2 billion population, also has critical needs, including food, schooling and health, and many are also affected by poverty and unemployment. Social entrepreneurs will help to alleviate these difficulties into a worthwhile

life for those less fortunate. They will address the problem through systemic change rather than the government or business sector (Goel & Risch 2012).

The field of social entrepreneurship is a common research and practice as per Gupta, Chauhan, Paul and Jaiswal (2020). In their research, 188 SSCI journal papers published in the past 10 years were systematically analyzed. It provides a summary of recent Social Entrepreneurship research and classifies it into few key topics while describing the pivotal fields of research.

FUTURE OF ENTREPRENEURSHIP IN INDIA

The central question of the sustainable development objectives (SDGs) and institutional vacuum in the urban geographies of India has been analyzed by Sandeep, Anirudh and Bruno 2020. They used a multiple case study approach to understand the scalability of social enterprises to solve SDG-related problems in India. Three techniques are identified to help provide scalable solutions: firstly, a large use of state-of-the-art digital technology to cut costs and expand scope, secondly, comprehensive collaborations across the board and, lastly, a focus on social technologies and business models which are preparation for accessibility, sustainability, availability, and familiarity to end users.

Study conducted by Pathak and Mukherjee 2020 suggested that India has seen the growth of social entrepreneurship by liberalization and has been recognized as a leading country in social innovation. "The goal of the research was to address a question from the research: what role do different stakeholder groups play in creating and supporting social EEs in the craft sector; the analysis is based on a methodological triangulation approach, which incorporates analytical articles, participant observation and semi-circular interviews. The report concludes that, for revival and sustainability of crafts as scalable economic resources, the role of like-minded individuals/social entrepreneurs, social enterprises, design networks and educative institutions is vital".

Study by Tan, Le, & Xuan (2020) suggested that the subject of social entrepreneurship is an increasingly important research topic, which is also a topic of great interest. "Their paper aims to provide a systematic review of the literature on SEI which outlines state-of-the-art current research, clarifies prevailing research trends and then proposes further research guidance in field. The research described the themes and corresponding gaps in social entrepreneurship."

In reality, Indian culture needs a substantial policy on social development that identifies and uses a set of reliable social measures to determine the satisfaction of living. The social enterprise demonstrates its capacity to expand and to contribute to growth, by

using social metrics in the course of study, to increase life satisfaction. The application of social metrics will improve social status reporting, thereby improving the process of identifying trend changes, predicting imminent issues and emergencies, and improved policies (Dube, 1988).

CHALLENGES FACED BY SOCIAL ENTREPRENEURS IN INDIA

The following text details some of the main challenges:

1. **LEGAL RECOGNITION:** Governments are the first challenge. Many of them still have to understand the valid field of social entrepreneurship.
2. **CURRICULUM IN EDUCATION:** The conventional country's education system also burdens entrepreneurship in India. "Since education is the principal source of entrepreneurship promotion in the economy's business sector," the Indian educational system has yet to produce a clear curriculum on entrepreneurship.
3. **LACK OF PARTNERSHIP OPPORTUNITIES:** The next challenge is to inspire organizations to explore the economic benefits of partnering with social entrepreneurs. The relation with social entrepreneurs which have created, placed in place and refine creative ways of getting previously excluded groups on to the market can be greatly facilitated from a financial perspective by linking them together.
4. **LACK OF CAPITAL:** The Indian entrepreneur faces an absence of capital. In general, Social Entrepreneurs finance their businesses with their own funds or raise funds at a high level of interest from local money lenders. "The explanation for this is the Bank's avoidance of providing social entrepreneurs with loan facilities due to the different social complications".
5. **LACK OF ACCEPTANCE OF INNOVATION:** The creative thinking and experimentation process we are in is a significant and crucial one in these institutions. "It should welcome risk as a key opportunity for international renewal and priority finding and legitimizing all who can envision and execute what they imagine with disciplined creativity".
6. **SOLUTIONS NON-AFFORDABLE:** People who are social entrepreneurs primarily face the challenging challenge of improving society's social security and are thus willing to find cost-effective solutions.

Any social business activity, however, has its own expenses, primarily borne by the owner out of its own pocket or by taking loans from money lenders. In a competitive market, social entrepreneurs often do not operate; they identify a social problem and seek to find affordable solutions.

7. **LACK OF SOCIAL SUPPORT:** This social entrepreneurs challenge concerns foundations and philanthropists who can foster social change through support to social trendsetters. "Foundations and individuals with a high net worth are undoubtedly well positioned to participate in this process, as they are liberated from two powers that control governments and businesses".
8. **LACK OF GOVERNMENT SUPPORT:** This is a big obstacle to the growth of social business in India. At present, the government offers no funding to encourage these social enterprises.
9. **ALIGNING MOTIVES OF DIVERSE WORKGROUP:** Skilled staff from diverse sources must be supported by social companies; experts, volunteers, employees and community members. "The founders are facing the task of aligning the reasons for all these groups with the long-term development of the organization".

RESULTS AND DISCUSSION

The research was considered important. It is very clear from the above studies that social entrepreneurship is for some national social development. The results of this study provide an exhaustive predictor of India's productive social business structure and optimistic futures. The paper explores "the role and responsibilities of social entrepreneurship in India and the social entrepreneurs' efforts to find affordable solutions to different social problems of society that are increasing". Greater amount of dynamism is expected from with developments in technology and rising competition.

CONCLUSION

Social entrepreneurship has evolved more and is well appreciated in India. Social entrepreneurs are faced with many challenges such as conveyance, remote work, fund raising, government approval, competition from others, technology acquisition, knowledge promotion, and skill creation. Although there are many successful examples of social entrepreneurial projects such as Lijjat Pappad, Amul & Gramin Bank, that represents the country. Social entrepreneurs in India have plenty of scope.

Innovation and encouraging good practices and advantageous modeling as well as exploring good

examples of social entrepreneurship will resolve the social and economic difficulties in India. A big obstacle for the future is the commitment of companies to the elimination of problems and to the health of society. Social entrepreneurship is an important concept for social responsibility and a means of solving a range of pressing social issues.

In India, social entrepreneurship have many such examples and ventures that come under the umbrella of social enterprise and have proven to alter the lives of people in the vicinity. Social entrepreneurship in India, in particular, has improved opportunities as the social challenges are evolving. The rare blend of entrepreneurship and philanthropy characteristics is social enterprise. Products and services in social entrepreneurship are designed to achieve full social impact and produce substantial income for the business. Here, the area/region is usually the business area, which big business entrepreneurship normally overlook. In certain respects, social entrepreneurship goods and services are very special and better fulfill societal requirements than economic requirements. If the government and other stakeholders are able to effectively resolve the challenges of social entrepreneurship, the most powerful tool with maximum potential to transform society in India is undoubtedly social entrepreneurship.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The results of this research must be understood in view of the constraints of the studies carried out. Limitations of study are as follows;

1. For the vast majority of research, cross-cutting designs were used, restricting the extent to which conclusions could be made about a causal relationship between social entrepreneurship, its goals and results.
2. This is a review of literature that gives rise to methodological issues.
3. This study explores social enterprise and its role in the eradication of poverty by the government. Consequently, the effects of this study must be generalized even in other welfare systems.
4. Future research may also examine the utility of the developed system in the field of social enterprise in other proven or emerging economies.

The social enterprise recommendations are as follows;

1. **Social Entrepreneurship Funding**-The highest degree of issues facing social entrepreneurship can be handled adequately if the social entrepreneurship funding

problem is solved.

2. **Network Approach:** Social companies should notify customers by adopting a network approach and set industry standards. The demand for their goods can be increased.
3. **Prizes and public greetings-** Social entrepreneurs must be rewarded in public for their outstanding and distinctive contribution as a social entrepreneur on frequent and prestigious platforms.
4. **Creation of Mass awareness-** The masses should be made aware of the social entrepreneurship in order to avoid misleading people between social entrepreneurship and social work. Other vehicles may be used for the same like newspapers, social media, etc.

IMPORTANCE AND CONTRIBUTION

This study aims to add to the academic literature on social entrepreneurship and its future prospects, as well as contribute to the development of an academic discipline. Over all, the research helps to sow the seeds of optimism that progress is feasible in this hopeless world because there are paths to a positive tomorrow. The path is shown by social entrepreneurship. Social entrepreneurs pave the way, which is also less explored.

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Reliability and Validity Analysis on the on Relationship Between Workplace Spirituality and Talent Retention Using Smart-PLS

Jitender Kaur

Abstract

The current pilot study analyzed the possibility of the association between three construct (compassion, spiritual orientation and meaningful work) of spirituality at workplace and talent retention. Hence, data was collected for the purpose of pilot survey from the employees working in the insurance companies operating in Punjab. A questionnaire for pilot survey was administrated and data collected from eighty working employees. The pilot study findings inspect that there is a positive and significant association among the compassion, spiritual orientation, and meaningful work and talent retention. The reliability and validity of the survey questionnaire was examined through using SMART-PLS 3.3.2. The results also verified that the survey questionnaire employed in the survey satisfied the satisfactory reliability and validity standards for main data collection purposes of the proposed research.

Keywords: workplace spirituality, compassion, meaningful work and spiritual orientation and talent retention

1. Introduction

In the age of knowledge, having a stable staff comprised of talented and devoted people is the most precious asset (Jena & Pradhan 2018). In the head-hunting age, organization are required to deliver a "signature experience" to their workers throughout their professional lives to build a devoted corporate workforce (Erickson and Gratton 2007). To attain this, it has been suggested that firms should have high-engaged workforce practices that can provide a great working experience in order to recruit and retain their workforce (Chand & Koul 2012; Altaf & Awan 2011; Pashak & Laughter 2012). Identifying proper developmental tactics that may inspire employee engagement and retention is a major problem for today's HR professional. Creating "good workplace experiences," which will enhance the organization's capacity to acquire and maintain competitive advantage, is one significant strategy to address this (Aryee et al. 1998; Graddick 1988). Findings of previous studies indicated that that companies that value cooperation and respect their employees' personal needs have higher levels of commitment and retention (Heneman & Judge 2003). Knowledge workers today are more educated and skilled than previous generations, and they want their work to be relevant and rewarding. They seek a higher quality of living and want to see improved chances and advancement in their field in a short period of time (Thomas 2000). As a result, recruiting and maintaining workers based on meaningful work assignments and providing them with a clear career path throughout their professional tenure is a major problem for today's human resource departments. Experience of workplace spirituality was significantly correlated to work attitudes of employees in terms of creativity, integrity, trust, commitment, customer orientation, job satisfaction, reduced turnover, and organizational citizenship behaviour (Sukumarakurup & Christopher 2002 ; Petchsawang & Duchon 2012; Pradhan et al. 2016). Despite the fact that few research have recently sought to investigate the link among workplace spirituality and talent retention, Thus the pilot study attempt to analyze the reliability and validity statistics of the scale.

2. Conceptual framework and literature review

2.1 Spirituality at work

Spirituality at workplace has been a major emphasis for modern businesses attempting to achieve long-term sustainability. Workplace spirituality is defined as one's spiritual experiences and manifestations in the workplace (Sheep 2006). We used the conceptual notion of spirituality at workplace based on work outcomes, "the effort to find one's ultimate purpose in life through the work one does, to develop a strong connection to co-workers and other people associated with work, and to have consistency (or alignment) between one's core beliefs and the values of their organization" (Milliman et al., 2003; Mitroff & Denton, 1999). According to exist literature, spirituality at work is said to be divided into three aspects: compassion spiritual orientation and meaningful work. Pradhan et al., (2017) offered a definition of workplace spirituality that emphasized the notion of spiritual connectedness in the workplace: "where work transcends the transactional boundaries to create a spiritual connectedness among employees, experiencing a meaningful work profile while guiding one's alignment of values to organizational goals".

2.2 Talent retention

The purpose and choice of a worker to continue with his or her current company is referred to as talent retention. Talent retention is a measure taken to persuade workforce to continue in the companies for a longer time. "Talent retention is the effort by an organization to retain talented workforce to meet business objectives" (Frank et al. 2004). In others words talent retention refers to various practices of the employers which leads to workforce stick to the organization for long and reduces the employee turnover and absenteeism.

2.3 Association between spirituality at workplace and retention

Spirituality at workplace is a variable (Jena & Pradhan, 2018) gaining importance in the investigation of the antecedents of employee retention. A study conducted by (Aboobaker et al., 2019) inspected that workplace spirituality positively influenced the employee well-being and intention to remain in the institutions through the career choice as a

moderator. Similarly study (Jena & Pradhan 2018) revealed that a significant and positive association exist between spirituality at the workplace spirituality and retention through the organizational citizenship behaviour as mediator. Another research conducted (Milliman et al., 2018) examined the influence of spirituality at work construct on engagement and intent to remain. The research was conducted on (n=292) working employees from the different departments such as; HR, IT, purchasing, logistics, warehouse and revenue management in the hospitality resort in the United States. The findings indicated that spirituality at workplace was significantly related to engagement and intent to remain, with employee engagement being linked to service delivery but not to intent to remain.

2.4 Hypothesis and research model

The proposed conceptual research model for this research represents figure 1.0. It is hypothesised that, workplace spirituality dimensions effect talent retention. The proposed hypothesised:

Hyp1: Spiritual orientation has a significantly related to talent retention

Hyp2: Compassion has a significantly related to talent retention

Hyp4: Meaningful work has a significantly related to talent retention

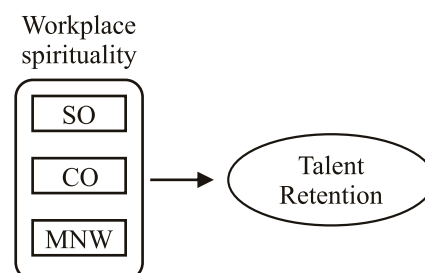


Figure1. Conceptual model

3. Method

This research was to use a cross-sectional method that requires the combination of a review of literature and a data sample that uses both subjective and objective estimation as the primary data collection process, which reduces the risk of statistical bias and ensures the highest level of precision in the data obtained. However, the conclusions given in this study are based on collected data for this pilot survey. As a result, the primary phase of this pilot study is to verify the instruments' subjective measurement by conducting a practical study of insurance industry professionals. Unit analysis of the survey is the managers and supervisory level employees of the insurance companies operating in Punjab (India). As a result, a total of one hundred twenty (120) questionnaires were delivered for this investigation among the employees of working in insurance companies. A total of seventy

returned questionnaires were received.

3.1 Instruments

The pilot survey questionnaire applies in this study consist of two main sections: 1. Participants information. The survey second section instrument is divided into three parts: where part 1, 2, and 3 of this research which are: (Part 1) compassion (Part 2) meaningful work (Part 3) spiritual orientation of this pilot survey questionnaire focused on the aspect of dependent variable (talent retention) of the research. All of the questionnaire survey's items in Section 2 were adapted and modified from earlier research. Workplace spirituality (Pradhan et al., 2017), and talent retention (Kyndt et al. 2009). These items in the study survey's second portion were scored on a five point likert scale and analyzed through SPSS 20 and Smart PLS 3.3.2.

3.2 Demographic information of the participants

The percentage of male and female participants who scored in the female group is 83 percent (male) and 17 percent (female). The bulk of participants were among the ages of 30 and 40 years old. Education wise, 2% were diploma holders, 64% graduates, 30% were post-graduates and remaining 4% had other type of qualification.

4. Data results

4.1 Assessment of measurement model

As (Table1.) summarizes the findings of the measuring model for the research's suggested

conceptual framework. The measurement model comprised of twenty items scale that were divided into; four items of the compassion, five items for meaningful work, six items of the spiritual orientation and five items for talent retention. This pilot questionnaire had no items removed. The reliability and validity tests are two of the most important tests to examine when establishing the quality of measure for a model. Validity test that reveals the applicability of the designed instrument in evaluating a given research topic, while reliability is a test that measures the scale's inner consistency (Sekaran and Bougie 2013). As shown in Figure 1.2, the measurement model's results are given.

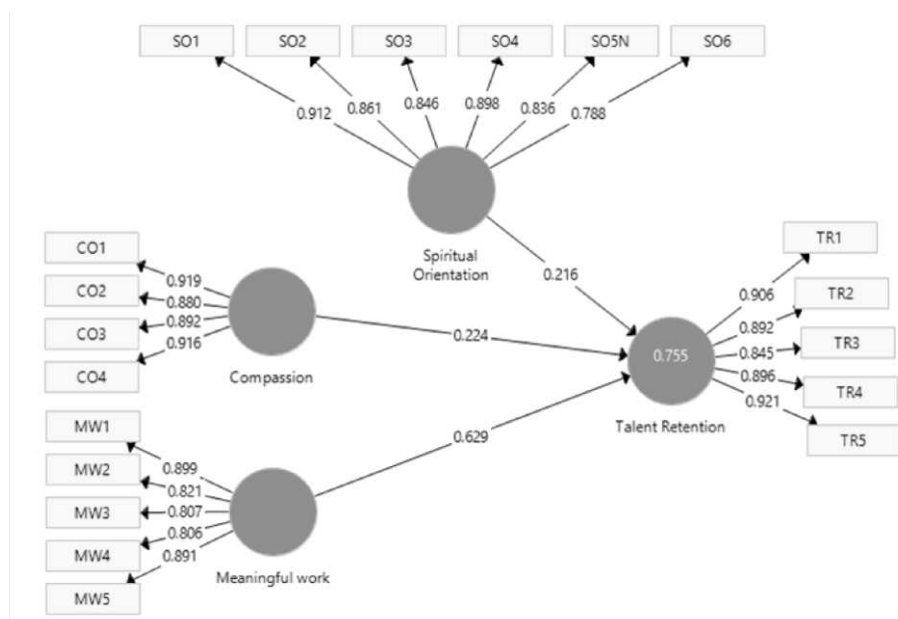


Figure 2. PLS Algorithm

Table1. Result of measurement model

Construct	Items	Convergent , Validity		Internal Consistency, Reliability		Discriminant Validity	
		Factor Loading	AVE	Cronbach's Alpha	CR	HTMT	VIF
		Above 0.60	Above 0.70	>0.90	>0.90	Confidence Interval Does Not Include 1	below0.50
Compassion	4	0.880- 0.919	0.814	0.924	0.946	Yes	1,185
Meaningful work	5	0.806- 0.899	0.715	0.900	0.926	Yes	1,545
Spiritual Orientation	6	0.788- 0.912	0.736	0.928	0.943	Yes	1,341
Talent Retention	5	0.687- 0.807	0.796	0.936	0.951	Yes	---

The measuring model's reliability may be determined by two values: Alpha coefficients and CR. The value of alpha coefficients greater than 0.7 (George and Mallery 2016) as well as composite reliability values of 0.7 or greater (Fornell and Larcker 1981), are considered appropriate. The model calculation values ranged between 0.900-0.936 for C.A (alpha coefficients) and 0.926-0.951 for composite reliability. The findings indicate that testing the instruments consistently is appropriate. The validity test, on the other hand, is used to assess the theories' suitability for the tests that have been created (Sekaran and Bougie 2013). Convergent validity and discriminant validity tests can be used to assess it. The convergent validity will be determined using the findings of the measurement model's (factor loading, CR, and also its AVE. The AVE value of all the construct items between (0.715 to 0.814) which was larger than (0.5), acceptable suggested by (Hair et al. 2014). The factor loading of each item in the construct surpassed the recommended value of 0.5, as shown (table 1). Despite the fact that the factor-loading value of items >0.5 is acceptable (Hair et al. 2014).

Discriminant validity (Cheung and Lee 2010) may be shown by the low correlation among items in distinct constructs when it comes to the collinearity issue of the questionnaire survey. The discriminant validity test may be determined by looking at the collinearity value of the constructs' VIF (Varian Inflation Factor) value if (< 5), as shown in (Table 1), indicating that there are no multi collinearity difficulties in the proposed model. The degree to which any one concept differs from the other constructs in the measurement model is referred to as discriminant validity. Every construct's sub-factors should be distinct from those of other constructs in the model. In this work, a novel criteria of HTMT ratio of correlations is utilized in adding to the standard way of examining discriminant validity of the constructs. HTMT values must be (< 1), as recommended by the (HTMT) inference method; however, to be on a stricter note, the (HTMT) must be (< 0.85) suggested by (Henseler et al., 2015; Voorhees et al., 2016) and 0.9 acceptable value (Gold et al., 2001). The HTMT values in the study investigation were well within the bounds, showing the uniqueness of all the constructs according to empirical criteria (Table 2).

Table 2: Heterotrait-Monotrait Ratio (HTMT)

HTMT Criterion	Compassion	Meaningful work	Spiritual Orientation	Talent Retention
Compassion				
Meaningful work	0.425			
Spiritual Orientation	0.187	0.544		
Talent Retention	0.535	0.893	0.602	

5. Discussion

According to the suggested model measurement results, all three dimensions of workplace spirituality are legitimate method of their separate constructs based on their factor estimates and statistical implication. As a result, the measurement model developed a sufficient reliability and validity criterion that may be applied during the data gathering process. The findings imply that spirituality at workplace elements have a favorable influence on talent retention.

6. Conclusion

The suggested conceptual framework was evaluated in this pilot study, which was based on workplace spirituality aspects and literature of talent retention. Pilot survey questionnaire employed in the analysis meets the relevant requirements of the reliability and validity tests using the Smart-PLS. According to the route model study, characteristics of workplace spirituality are highly linked to talent retention. As a

result, the primary data collecting for this study is presently underway, with a high number of participants expected to stimulate and add to more meaningful research findings.

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Influence of Psychographics on Store Brand Buying Behaviour

Ipsita Padhi , B. B. Mishra

Abstract

Retailers have always been interested in the buying pattern of consumers since it has helped them leverage their strategies by targeting the more profitable segment. However, while the Indian consumer has evolved and embraced the modern way of life, their buying patterns have changed. Past studies have shown that psychographics played an essential role in influencing the consumer's buying behaviour. A theoretical model was proposed and tested in this study to determine the influence of psychographic factors (AIO, LOV, shopping motivation) on consumers' buying behaviour towards store brands in the FMCG sector. An Exploratory Factor Analysis was run on 360 responses collected through the mall-intercept method, which resulted in categorising four distinct factors- Utilitarian shopper, Experiential shopper, Indulgent shopper and Enthusiastic shopper were considered significant in influencing the store brand buying behaviour. Also, statistical tests showed a positive inter-relationship of socio-demographic factors like gender, age, occupation, monthly household expenditure on the psychographic factor labels. However, family size did not show any influence on psychographic characteristics. The study might be a valuable addition to the academic literature since it has tried to explore the relationship of a combination of psychographic factors on FMCG store brand's consumer buying pattern in the Indian context.

Keywords: Store Brand, Consumer Buying Behaviour, Psychographics, AIO, LOV, Shopping Motivation

1. Introduction

The retail industry in India has seen a phenomenal rise in the last decade. Fast-moving consumer goods (FMCG) is the major contributor to the industry, accounting for more than 50% of sales in India due to various factors that have led to the upward trend in the growth of the FMCG sector (Indian Brand Equity Foundation, 2021). The other significant factor that has led to the unprecedented rise of the retail industry is the penetration of store brands; their presence is felt strongly, particularly within the FMCG sector (Segal & Giacobbe, 1994; Sinha, 2003). Store brands are marketed and sold by retailers exclusively in brick-and-mortar or e-commerce stores (Griffiths, 2009). Until 2000, Indian consumers had not heard of store brands (Gala & Patil, 2013). In their nascent years of existence, store brands were marketed as low-priced and low-quality products and were often named "cheap substitutes" to their national brand counterparts (Richardson et al., 1996). But over the years, store brands have evolved drastically, keeping the consumer's preferences in mind. As a result, today's store brands are budget-friendly and stand par in quality than national brands. This transformation has led to store brands being instantly accepted and liked by the price-sensitive Indian consumer (Sinha, 2003).

Owing to the great success of store brands, retailers have been interested in creating more store brands to compete with national brands. Hence, retailers need to understand the factors that initiate a buying instinct of a consumer to purchase a store brand. Various factors have influenced the consumer's store brand buying behaviour (Segal & Giacobbe, 1994). Among all the elements, psychographics and socio-demographics are deemed to be the most important. This study is an attempt to explore the psychographic parameters – AIO, LOV and Shopping Motivation, and to understand their extent of influence on consumer's store brand buying behaviour (Chin, 2002; Plummer, 1974; Tam & Tai, 1998).

2. Review of Literature

Store brands are one of the creative ideas that have immensely helped the accelerated growth pattern of the FMCG sector and the retail sector collectively. Various factors have contributed to the success story of the store brands (Griffiths, 2009; Raju et al., 1995). The first factor to keep in mind is the decision-making process that runs in a consumer's mind before purchasing a store brand. After delving further down into the subject, it is understood that the entire buying process is the causal reaction of a host of cumulative factors which tend to influence the psychology of the consumer (Baltas & Argouslidis, 2007). Differentiating consumers based on their psychological ability to decide their shopping needs are better known as psychographics segmentation (Demby, 1974). Until 1974, it was always considered that consumer's buying behaviour was predominantly influenced by socio-demographic factors like age, gender, occupation, monthly shopping expenses, family size etc. However, Demby (1974) understood another significant factor apart from socio-demographics that plays an essential role in influencing consumers' buying behaviour. Hence, he coined the term psychographics by combining the two words psychology and demographics. From extant literature, it was found that there were many ways in which psychographics could be defined, and

hence various dimensions to understand this segmentation (Chin,2002). Since psychographics is used to understand the difference in a consumer's lifestyle, social class, or personality variables, the most widely used methods to measure the dimensions are Activities, Interests, Opinions popularly(AIO) and List of Values known (LOV) (Joonghathakarnsathit & Tanthayanount,2002; McDonald,1994). The AIO and LOV dimensions are often used in market research to standardise the consumer's values and lifestyle traits and also to consolidate the distinct classification of activities(behaviour), interests and opinions, which help the retailer in effectively formulating segmentation strategy (Kahle et al.,1986; Wells & Tigert,1971). Since psychographics tends to focus on the consumer's known behavioural and personality traits, it reflects a broader three-dimensional view of a consumer's living and consumption patterns that have been shaped through years of past experiences and social interactions formulated as psychological and sociological factors in the consumer's mind.

Previous literature provides a variety of scale items that have been used in numerous studies to measure the influence of psychographic factors on consumer buying behaviour. For the convenience of the current study, these lists of items have been arranged under the heading Shopping Motivation. Extant literature has been referred to select and prepare the list of scale items under Shopping Motivation. A list of 14 scale items has been developed under Shopping Motivation

to test the theoretical framework for the study. The scale items are price-consciousness (Ailawadi et al.,2001;Burton et al.,1998), quality-consciousness (Batra & Sinha,2000;Burton et al.,1998),value-consciousness(Burton et al.,1998), conscious about retailer's store image (Chin,2002),variety seeking (Ailawadi et al.,2001), shopping for enjoyment (Ailawadi et al.,2001),price-deals discounts(Burton et al.,1998;Chandon et al.,2000), non-price deals promotions(Burton et al.,1998; Chandon et al.,2000), visual display of store brands(Burton et al.,1998; Chandon et al.,2000), impulsive buying(Ailawadi et al.,2001; Burton et al.,1998), pack size(Chin,2002), packaging (Chin,2002), smart shopper perception(Ailawadi et al.,2001;Burton et al.,1998).

After reviewing the extant literature, it was found that not many studies have been conducted in the Indian context to understand the influence of psychographic factors with parameters like AIO, LOV and Shopping Motivation on consumer's store brand buying behaviour in the FMCG sector (Kesic & Piri-Rajh,2003; Tam & Tai, 1998; Todd et al.,1997).

Therefore, a theoretical framework was proposed to understand psychographic factors (AIO, LOV, Shopping Motivation) on the store brand buying behaviour in the FMCG sector, as shown in Figure 1. The model also showcases the direct relationship of socio-demographic factors on store brand buying behaviour while also exerting an inter-relationship on the psychographic characteristics.

Figure 1 Theoretical Framework

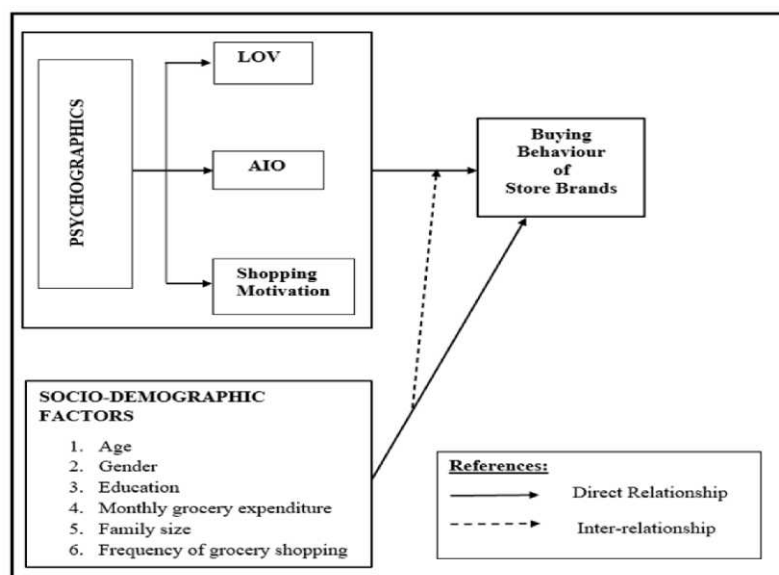


Figure 1 Theoretical Framework

Source: Author's conceptualisation

2.1. Research Objectives and Hypotheses

As reviewed from literature, many studies have been conducted to determine the influence of psychographic factors on store brand consumer's buying behaviour (Baltas,1997; Dick et al.,1995). But

the review literature has brought to light that very few studies on this aspect have been conducted keeping in mind the Indian context. Also, there were fewer studies where more than one parameter has been considered to measure the dimension of

psychographic factors. Therefore, the present study is an attempt to understand how the different parameters of psychographic factors-AIO, LOV and Shopping Motivation tend to influence the consumer's store brand buying behaviour in the FMCG sector in India (Bhatt & Rathod, 2012; Shannon & Mandhachitara, 2005; Sinha, 2003). Therefore, a theoretical framework had been conceptualised, as shown in Figure 1, to examine the following research objectives for the current study:

1. To study the influence of socio-demographic factors (gender, age, occupation, monthly household expenditure, frequency of grocery shopping) on consumer's store brand buying behaviour
2. To analyse the influence of psychographic factors (AIO, LOV & Shopping Motivation) on consumer's store brand buying behaviour
3. To understand the inter-relationship of socio-demographic factors on psychographic factors while buying store brands

Based on the research objectives, the hypotheses developed for the current study are:

H1: Socio-demographic factors influences the consumer's store brand buying behaviour

H2: Psychographic characteristics -AIO, LOV & Shopping Motivation influence the consumer's store brand buying behaviour

H3: Socio-demographic factors have an inter-relationship influence on psychographic factors while buying store brands

3. Research Methodology

The present study was quantitative and used a close-ended questionnaire with a 5-point Likert where "1" denoted Strongly Disagree, and "5" denoted Strongly Agree. The questionnaire consisted of 36 scale items for psychographic factors and six scale items for

socio-demographic characteristics. The population of the study constituted of consumers who purchased store brands from the FMCG sector. The sample size was estimated to be around 400 responses of the total population. However, only 360 responses could be considered valid. A purposive sampling design was used to ensure each respondent selected for the study had been a consumer of store brands. The primary data was collected through the mall-intercept method at various Big Bazaar and Reliance Fresh stores across the cities of Cuttack and Bhubaneswar in Odisha. The responses were carefully treated to be deemed fit for data analysis using the SPSS package (Field, 2013).

4. Data Analysis

For the study, respondents were surveyed across 27 retail stores of Reliance Fresh and 9 stores of Big Bazaar across the cities of Bhubaneswar and Cuttack in Odisha. The response rate for the survey was 89 % resulting in 360 valid responses. The sample had 205 female respondents constituting almost 57% of the sample size, while 155 male respondents comprised nearly 43% of the sample size.

4.1. Analysis of H1

For testing hypothesis H1, a Chi-Square test was conducted between the socio-demographic variables and the dependent variable, which is store brand buying behaviour (Field, 2013). As per the results displayed in Table 2, all the socio-demographic variables show p values to be less than 0.05; hypothesis H1 is accepted. Thus, it can be concluded that socio-demographic variables (as mentioned in Table 2) significantly influence the consumer's store brand buying behaviour and satisfies the flowchart in the proposed theoretical model. Also, Crammer's V values shown in Table 2 suggest the association of the socio-demographic variables with store brand buying behaviour. Among all the variables, occupation has the strongest association, while gender and members in the household have the weakest association with store brand buying behaviour.

Table 2 Summary of Chi-Square test between Socio-demographics and Store Brand buying behaviour

Sr.No.	Socio-demographic	Chi-Square (χ^2)	Crammer's V	df	Sig.
1	Gender	33.636	0.306 (weak)	6	0.000
2	Age	291.352	0.450 (medium)	24	0.000
3	Occupation	374.481	0.510 (strong)	24	0.000
4	Members in household	99.450	0.303 (weak)	18	0.000
5	Monthly household grocery expenditure (in Rupees)	242.748	0.474 (medium)	18	0.000
6	Frequency of monthly household grocery shopping at retail stores	109.428	0.318 (medium)	18	0.000

Source: SPSS Data Analysis

4.2. Analysis of H2

The initial questionnaire contained 46 psychographic scale items, which were reduced to 36 items after pilot testing. For testing hypothesis H2, exploratory factor analysis was conducted to find appropriate factor loadings among the psychographic variables containing 6 statements for list of values (LOV), of 8 statements of lifestyle factors (AIO) such as 3 statements of Activities, 3 statements of Interests, 2 statements of Opinions and 22 statements related to Shopping Motivation (Nunnally, 1978; Pett et al., 2003). The KMO value was measured to be 0.698, which was considered a good fit, and the significant level of Bartlett's test of sphericity was significant at $p=0.000$ which fulfils the test. As displayed in Table 3,

four factor models were selected from the psychographic variables based on the Eigenvalues that were greater than one and by referring to the elbow point of the scree plot. Each factor model was estimated using the Principal Components extraction method and Oblimin with Kaiser Normalisation rotation method, and rotation converged in 60 iterations. The factor analysis was repeated after dropping loadings below 0.4, and cross-loadings were ignored. Based on salient loadings, factors were given unique labels. The factor labels, individual factor loadings, internal reliability of each factor label measured by Cronbach's alpha and the explained variance for each factor label were displayed in Table 3.

Table 3 Summary of Psychographic factor labels and factor loadings

	Factor labels	Statements	Factor Loadings	Cronbach's 'α'	Variance explained
Factor 1	Enthusiastic shopper	Activities Q7	0.785	0.879	23.824%
		Impulse buying Q30	0.714		
		Interests Q11	0.698		
		Impulsive buying Q29	0.626		
		List of Values Q5	0.622		
		Activities Q8	0.440		
		Packaging Q32	0.405		
Factor 2	Utilitarian shopper	Price consciousness Q16	0.912	0.851	17.659%
		Price consciousness Q15	0.626		
		Visual display of store brands Q27	0.532		
		Price consciousness Q17	0.532		
		Visual display of store brands Q28	0.474		
Factor 3	Experiential shopper	Pack size Q31	0.786	0.620	7.546%
		Discount - price deals Q25	0.605		
		Discount - price deals Q24	0.467		
		Variety seeking Q22	0.457		
		Shopping enjoyment Q23	0.444		
Factor 4	Indulgent shopper	List of Values Q4	0.720	0.614	5.742%
		Interests Q10	0.653		
		List of Values Q6	0.484		

Source: SPSS Data Analysis

The influence of the four factor labels on store brand buying behaviour was measured with a multiple linear regression, the results of which are displayed in Table 4 (Hair et al., 2010; Sinha & Uniyal, 2004). The analysis showed that the regression model was significant with an F value of 51.952 and $p = 0.000$ significant ($p < 0.05$). The regression model also suggested that 36.2% (Adjusted R square) variance of store brand buying behaviour was influenced by the four factor labels. This proved that overall, all the four

factor labels significantly influenced the store brand buying behaviour. As shown in Table 4, among the four factor labels, Utilitarian shopper was the most substantial factor to influence consumer's store brand buying behaviour with a $\beta = 0.467$, followed by Indulgent shopper, $\beta = 0.440$ and Experiential shopper, $\beta = 0.269$. On the other hand, enthusiastic shoppers had an inverse influence on consumer's store brand buying behaviour with $\beta = -0.569$.

Table 4. Summary of Psychographic factor labels influencing Store Brand buying behaviour

Hypothesis H2	Regression coefficient	Std. error	Beta (β)	t	Sig.
Utilitarian shopper	.463	.049	.467	9.360	.000
Indulgent shopper	.453	.054	.440	8.421	.000
Experiential shopper	.281	.055	.269	5.121	.000
Enthusiastic shopper	-.442	.043	-.569	-10.342	.000

Source: SPSS Data Analysis

4.3. Analysis of H3

To test hypothesis H3, it is necessary to check the influence of socio-demographic variables on the four factor labels (psychographic variables) derived from EFA (Field,2013; Nunnally,1978). Therefore, the mean of the four factor labels is calculated, and a series of one-way ANOVA is tested between the mean of factor labels and each socio-demographic variable. It is found that the variables gender ($F=6.965, p=0.009$), age ($F= 8.157, p=0.000$), occupation ($F= 15.227, p=0.000$), monthly household grocery expenditure ($F=14.727, p=0.000$) and frequency of monthly grocery shopping at retail stores ($F=12.463, p=0.000$) are significant since $p<0.05$, and hence are responsible for influencing the psychographic factors. But family size ($F=0.653, p=0.582$) does not influence psychographic variables as $p>0.05$.

5. Conclusion

Consumer's buying behaviour has been a matter of interest in many past studies. It explores the retailer's managerial implication by helping the retailer gain a competitive advantage by leveraging its strategies to target the most profitable segment. The study proposed a theoretical model to explore the influence of psychographic variables on consumer's store brand buying behaviour. The model also proposed an inter-relationship of socio-demographic variables on psychographic variables, which influenced consumer's store brand buying behaviour. Testing the hypotheses resulted in finding that occupation had a strong direct relationship with consumer's buying behaviour. At the same time, the psychographic variables – AIO, LOV and Shopping Motivation, were subjected to EFA to narrow down to four factor labels- Enthusiastic shopper, Utilitarian shopper, Experiential shopper and Indulgent shopper, which influenced consumer's store brand buying behaviour. A regression analysis between these four factor labels showed that only Enthusiastic shoppers had an inverse relationship with consumer's store brand buying behaviour while the rest of the factor labels had a positive influence. Also, other than family size, the rest of the socio-demographic factors displayed an inter-relationship on the four factor labels, which influenced the consumer's store brand buying behaviour. Since the stores of one of the two largest store brand FMCG corporates in India - Big Bazaar

and Reliance Fresh have been considered for this study, the results could be of help for these companies to enhance their strategies of capturing the consumer's psychographics by formulating and creating better store brand FMCG products.

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An Empirical Study on Selected Social Media Users' Opinion on Influencer Marketing

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Abstract:

The tremendous rise of influencers on social media has prompted the researcher to undertake an empirical research to understand the opinion of selected social media users on influencer marketing and also to identify the level of importance for different traits of a social media influencer. The relevant data were conveniently gathered from 200 social media users residing in Vadodara City by administering a structured non-disguised questionnaire. As statistical tools, descriptive statistics, percent, Chi Square test, Independent Sample 't' test and One way ANOVA were applied. The results showed that Instagram is the most appropriate medium for influencer marketing while creation of quality contents and knowledge of brands are the most important traits of a social media influencer. Besides, it was found that social media influencer marketing is the convenient and effective marketing tool.

Keywords: Influencer Marketing, Social Media, Influencers

Introduction

As the netizens are fascinated by social media, OTT platforms, virtual connectedness, consumptions of digital products etc., the marketers take the advantage of prevailing digital culture by designing creative marketing campaigns and strategies. In fact, today the majority of social media marketers have adopted meme marketing, influencer marketing, viral marketing, retargeting etc. resulting to influencing the buying behaviour of netizens. For well-known brands, paid partnership and collaboration are being done with professional social media influencers to promote the brand which is regarded as an influencer marketing. The roots of influencer marketing are, needless to say ingrained with the word of mouth. Influencer Marketing is not a new phenomenon in marketing, opinion leaders existed a long time before (Cernikovaite, 2019). Like celebrity endorsement, it is a kind of online marketing emphasizing more on contents, testimonies and a lucrative collaboration with influencers with the aim of recommending the brands and affecting purchase decision. Nadanyiova *et al* (2020) defined 'Influencer marketing is a form of marketing communication, using influencers to target consumers. It helps companies build their brand and loyalty based on consumers' trust in someone they know and admire'

Review of Literature

Chopra *et al* (2021) opined that the recent marketing trends indicate the rise of influencers as an extension of word-of-mouth campaigns. Cernikovaite (2019) believed that influencers brag on and form opinions on certain topics and influence the others on social media. De Veirman *et al* (2019) were of view that influencers are valuable assets for the advertisers and vloggers on You Tube majorly affect the purchase decisions of young consumers. The customer mindset about brand is affected by influencer marketing (Keller, 2006). Rogers (2017) was of opinion that influencer marketing is the way through which a great multitude of customers can be reached out in an authentic manner. Influencer Marketing is the perfect blend of merits of word of mouth and celebrity endorsement (De Veirman *et al.*, 2019). As per the Google market Trend 2017, influencer marketing is perceived as famous digital marketing tool. Nidamarthy *et al* (2020) found that paid reviews by the influencer may not be so useful as unpaid ones. Armenteras *et al* (2017) concluded that influencer marketing affects the perceived brand image. Comments and shared information about specific brands are the most significant factors in altering the buying behaviour (Cernikovaite, 2019). Glueksman (2017) opined that adoption of social media influencer marketing has changed the way of interaction between consumers and brand. Pick (2021) found that perceived influencer's credibility serves an important factor determining purchase intention, attitude towards advertising and product.

Statement of Research Problem

In recent times, the rise of influencers on social media has opened a new avenue for marketers to reach out to target audiences on this technology driven platform. Today, many you-tubers, vloggers, Instagram freaks and artists having huge followers, have emerged out as influencers endorsing brands on their respective social media platforms. Such influencers create contents focusing on brand and try to influence the purchase decisions of

followers. This trend would be advantageous for both well-known and new brands to be promoted through paid partnership or collaboration with such social media influencers. Hence, the research has undertaken this study to gain an understanding on social media users' opinion on influencer marketing.

Significance of Research Study

The findings of the research study provide the greater insights enabling the marketers not only to collaborate with social media influencers but also to have an understanding on key traits of an influencer on social media. This would help them design influencer marketing strategy.

Scope and Coverage of Research

The present study chiefly focuses on influencer marketing and opinion of social media users thereon. The respondents of this empirical study belonged to Vadodara City.

Research Objectives

To understand the opinion of selected social media users on influencer marketing

To identify the level of importance for different traits of a social media influencer

Research Methodology

The researcher administered a structure non-disguised questionnaire containing the demographic details and pertinent statements on opinion and perception towards influencer marketing. The responses on those statements were measured on Five Points Likert Scale from strongly agree to strongly disagree. For reliability check, Cronbach's alpha was calculated, it was measured as 0.874 which was within the acceptable limit. The relevant data were conveniently collected from 200 social media users and the gathered data were analyzed with the help of descriptive

statistics, frequency distribution and percent. Additionally, Chi Square test, Independent Sample 't' test, One Way ANOVA were applied as statistical tools for hypothesis testing.

Sample Profile

The sample of this study was comprised of 61.5 percent male and 38.5 percent female social media users. The total percent of respondents belonging to students, salaried person, self-employed, businessman, house-wife and others were 54.5, 30.5, 7.5, 4.5, 2.5 and 0.5 respectively. The majority of selected social media users (52.5 percent) belonged to age group of 20-24 years while 10.5 percent respondents were from 17-19 years of age group. The respondents falling between the age group of 25-30 years and 31-40 years were 18 percent and 19.5 percent respectively. The total percent of respondents using Facebook, Instagram and You Tube were 70.5, 93.5 and 84 respectively.

Data Analysis and Interpretation

- To the larger extent, the purchase decision of 36.5 percent selected social media users is influenced by the Social Media Influencers while there were 33.5 percent selected social media users whose purchase decision to larger extent is affected by the Advertisement.
- There were 30.5 percent respondents who highly prefer a brand recommended by social media influencers while 45.5 percent respondents had a moderate preference for the brand recommended by the influencers on social media. There were only 20 percent of selected social media users who least prefer the brand recommended by the social media influencers.

Table Number 1
Segment (Brand) Dealt with by Social Media Influencer followed by the selected social Media Users

Segment (Brand) Dealt with by social media influencer followed by the selected social Media Users	Count	Percent
Fitness & Nutrition	122	61
Beauty & Cosmetic	72	36
Lifestyle	118	59
Food	128	64
Travel	107	53.5
Photography	95	47.5
Apparels	113	56.5
Others	6	3

As depicted in the above table, 64 percent respondents followed the social media influencers belonging to Food while 61 percent selected social media users followed those influencers representing Fitness and Nutrition segment (related brands). While 56.5 percent social media users were inclined towards

following influencers recommending Apparels Brands. There were 36 percent of respondents who followed influencers who promote beauty and cosmetic brands. Similarly, 59 percent social media users were interested in following influencers who endorse Lifestyle brands.

Table Number 2 Traits of an Influencer on Social Media and their Importance

Traits of an Influencer on Social Media and their Importance	Most Important		Moderately Important		Least Important		Not at all Important	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Personality (Appearance)	148	74	40	20	11	5.5	1	0.5
Trend Setter Approach	85	42.5	90	45	17	8.5	8	4
Representativeness of Target Group	109	54.5	74	37	12	6	5	2.5
Creation of Quality Contents	153	76.5	40	20	6	3	1	0.5
High Level of Engagement	110	55	75	37.5	13	6.5	2	1
Body Language	123	61.5	69	34.5	8	4	0	0
Knowledge about Brand	153	76.5	41	20.5	6	3	0	0
Connection Through Communication	127	63.5	60	30	12	6	1	0.5
Genuine Recommendation	151	75.5	37	18.5	9	4.5	3	1.5

As represented in the above table, according to majority of selected social media users, creation of quality contents (76.5 percent), knowledge about brand (76.5), Genuine Recommendation (75.5 percent), Personality (74 percent) are most important

traits of an influencer on social media. While 45.5 percent respondents opined that trend setter approach of an influencer is moderately important. Therefore, it can be said that these are the chief attributes required to be a social media influencer.

Table Number 3 View on Appropriate Social Media Platform for Influencer Marketing

An appropriate social media platform for influencer marketing	Count	Percent
Instagram	151	75.5
Facebook	20	10
Blog	2	1
You Tube	24	12
Twitter	2	1
Pinterest	1	0.5
Total	200	100

The above statistics reveal that majority of respondents (75.5 percent) were of opinion that Instagram is the most appropriate for Influencer Marketing amongst all social media platforms while 12 percent respondents believed that You Tube is the most appropriate social media platform for influencers marketing. Surprisingly, there were only 10 percent respondents who consider Facebook as the most appropriate for influencer marketing.

Opinion of Selected Social Media Users on Influencer Marketing

There were 35 percent respondents who strongly agreed to the statement that influencer marketing is more effective social media marketing strategy than meme marketing and retargeting. According to 43

percent selected social media users, influencer marketing has more credibility and reliability whereas 49.5 percent respondents held a strong opinion that influencer marketing is the best and convenient way to reach out to the large number of targeted customers while 49.5 percent of respondents strongly agreed that a brand recommended on social media by an influencer portrays a distinct brand image. Similarly, majority of selected social media users were of strong opinion that influencer marketing is an appropriate strategy for brand awareness and brand recall. Besides, 28 percent respondent strongly agreed to the statement that they do not hesitate in buying any product recommended by an influencer on social media. There were 51 percent respondents who

strongly believed that Paid Partnership, Collaboration and Recognition inspire social media users to be an Influencer.

Hypothesis Testing

Ho₁: The opinions of Selected Social Media Users

on selected criteria of Influencer Marketing and their gender are significantly independent

The responses obtained on five-points Likert scale were converted to categorical variable in order to applied the Chi Square test.

Table Number 4 Chi-Square (χ^2) value for the opinions of Selected Social Media Users on selected criteria of Influencer Marketing vis-à-vis their Gender

Selected Statement on Influencer Marketing	Df	p (Asymp. Sig.)	Result
Influencer Marketing is more effective Social Media Marketing Strategy than Meme Marketing and Retargeting.	12	0.013	S
Influencer Marketing has more credibility and reliability	12	0.064	NS
Influencer Marketing keeps social media users engaged.	12	0.041	S
Influencer Marketing is the best and convenient way to reach to the larger number of targeted customers.	12	0.005	S
A brand recommended on social media by an influencer portrays a distinct brand image	12	0.001	S
Influencer Marketing is an appropriate strategy for brand awareness and brand recall.	12	0.005	S
I do not hesitate in buying any product recommended by an influencer on social media.	12	0.099	NS
I do share the posts of a brand recommended by the influencer	12	0.04	S
I would like to purchase if any brand is marketed on social media by my favourite celebrity	12	0	S
Paid Partnership, Collaboration and Recognition inspire social media users to be an Influencer	12	0.219	NS
S = Significant, NS= Not Significant			

The results of Chi Square test indicate that the opinions of selected social media users on selected statements pertaining to influencer marketing is statistically and significantly independent except two statements viz. 'I do not hesitate in buying any product recommended by an influencer on social media' and

'Paid Partnership, Collaboration and Recognition inspire social media users to be an influencer because the corresponding values 'p' for these two statements are greater than the assumed level of significance (0.05).

Ho₂: The means of Opinion of Male and Female Social Media Users on Appropriateness of Influencer Marketing for Brand Awareness and Brand Recall are the same.

Table Number 5 Group Statistics for Independent Sample 't' Test

Gender		N	Mean	Std. Deviation	Std. Error Mean
Appropriateness of Influencer Marketing for Brand Awareness and Brand Recall	Male	123	4.2033	1.00783	.09087
	Female	77	4.2597	.93756	.10684

The table number describes that the mean of opinion of female social media users (4.2597) on appropriateness of influencer marketing for brand awareness and

brand recall is slightly higher than that of male social media users (4.2033).

Table Number 6 Independent Sample 't' Test

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference
Ho2	Equal variances assumed	1.398	.238	-.396	198	.692	-.05649
	Equal variances not assumed			-.403	170.231	.688	-.05649

The result of Independent Sample 't' test presented in the above table indicates that the corresponding p values for both the equal and unequal variances are 0.346 (0.692/2) and 0.344 (0.688/2) respectively. Because in the both the cases 'p' values are greater than

assumed level of significance (0.05), there is no enough evidence to reject null hypothesis. It is therefore, concluded that the means of opinion of male and female social media users on appropriateness of influencer marketing are the same.

Ho₃: The means of Opinion of Social Media Users of different age groups on Appropriateness of Influencer Marketing for Brand Awareness and Brand Recall are the same.

Table Number 7 Descriptive Statistics

Age Group (Years)	N	Mean	Std. Deviation	Std. Error
17-19	21	3.9524	1.11697	.24374
20-24	104	4.0288	1.04702	.10267
25-30	36	4.3333	.82808	.13801
31-40	39	4.7949	.52212	.08361
Total	200	4.2250	.97937	.06925

As depicted in the above table, the mean values of opinion of selected social media users of different age groups viz. 17 to 19 years, 20 to 24 years, 25 to 30

years and 31 to 40 years are 3.95, 4.03, 4.33 and 4.79 respectively. The highest mean value is of 31 to 40 years age group followed by 25 to 30 years age group.

Table Number 8 Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
5.437	3	196	.001

The above statistics clearly state that the significant value (0.001) is less than 0.05 and thus, the alternative

hypothesis is accepted and it can be said that the variance of at least one age group is different.

Table Number 9 One Way ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.650	3	6.217	7.075	.000
Within Groups	172.225	196	.879		
Total	190.875	199			

The above given One Way ANOVA table reveals that the variation between the age groups of selected social media users is 18.650 and the variation within age groups is 172.225. The variation within age groups is higher than the variation between age groups. As the significance value (0.000) is less than 0.05, the null hypothesis is rejected and thus, it can be said that the mean of opinion of at least one age of group of social media users on appropriateness of influencer marketing on brand awareness and brand recall is different from those of the other age groups. Hence, the difference cannot be attributed due to chance.

Limitations of Research Study:

The study was confined to only influencer marketing which is the one of the strategies of social media marketing. The required data were conveniently gathered from 200 social media users dwelling in Vadodara City only. Hence, the results may not be

generalized. The respondents mainly belonged to young age groups and their experience, biasness and prejudices might have impacted their responses.

Conclusion:

In nutshell, influencer marketing on social media has a great potential to affect the choice of purchase. A creatively devised social media influencer marketing campaign will certainly be beneficial in terms of brand awareness, brand positioning and brand recall.

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Association between New Start-ups and Exports: An Empirical Anecdote from India

Varun Panwar, Jyoti Mahajan, Namita Rajput

Abstract

Shree Narendra Modi as a prime minister gives the vision of "Atmanirbhar Bharat" to make India as a self-reliant nation. For making India self-reliant nation, micro, small and medium enterprises (MSMEs) are considered as economy's backbone. New startups provide employment and support many other factors of production connected to it. New startups are considered an "engine of growth" for the economy, especially in countries like India, as it leads to a rise in GDP and regional development. Competitive global startups also help strengthen the export sector and support various economic crises like reducing the BOP deficit, maintaining foreign exchange reserves, import-substitution, etc. Various reforms has been taken like introducing a new tax regime, Made in India and GST implantation etc. to boost micro, small and medium enterprises (MSMEs). The purpose of this study is to look at the relationship between launching a new startups and its impact on the export sector. With secondary data support, research was conducted utilizing correlation and regression as the critical statistical tools.

Key words: Exports, MSMEs, Correlation, Regression, Startups

1. Introduction

Entrepreneurship is a crucial and inevitable activity that serves as a base for economic development and stability. Entrepreneurs help in the growth and development of small scale industries of an economy, particularly in India. It is very significant in the rise of economic growth in many ways. The growth of entrepreneurs helps the Indian economy to become "Atmanirbhar Bharat" in an absolute sense. Entrepreneurs act as a driver in the economic growth and development of an economy.

Since independence, India had less emphasis on entrepreneurship, yet there were abundant resources available in almost all the sectors. However, after implementing the LPG Policy in 1991, the importance of entrepreneurship is strongly felt for the Indian economy's growth by developing micro, small and medium enterprises (MSME), which is also called the "engine of change" in the developing countries. As a result, new startups in the small sector in India start gaining inspiring growth after 1991. It helps in regional balance growth, especially in rural sectors, provide employments opportunities etc. It also helps lead to import substitution and a rise in the export of goods and services, reducing the Current Account Deficit and giving rise to the economy's growth.

On 2nd June 2020, our honourable Prime Minister Shri Narendra Modi, while addressing the conference to a Confederation of Indian Industry (CII), mentioned that Made in India should not only be restricted to the home country. Therefore, our new startups should focus on the domestic country's manufacturing base and be globally competitive and manufacture with such a quality that what is selling in India can be sold abroad too, boosting our exporting sector.

2. Review of Literature

Many studies have been conducted on new startups and its impact on the export and economic development of the country. These studies also show how vital new startups are to reduce the deficit in BOP and save scarce foreign exchange reserves by adopting import substitution and encouraging exports. However, various studies which were conducted reveal few points as follows:

Ohkuma et al. (2000) discussed that entrepreneur means a person who arranges all the required resources and willing to take the risk, which is to be rewarded with profit. On an average, there are just 12% to 15% of new startups across the globe. This percentage is significantly less as required to attain desired economic growth. They also concluded that more people need to be encouraged to take entrepreneurship, which leads to human welfare and helps sustain development in the economy by boosting capital formation, increasing employment generation and per capita income, more contribution to tax, and many more.

Virgill (2009) emphasized in his study that alone import substitution and outward orientation policy do not lead to industrialization until the role of entrepreneurship is recognized. He further reveals that import substitution without enough enterprises around leads to less innovation, poor quality and high cost. Hence, entrepreneurship should be promoted, which leads to achieving both the goals of import substitution and outward orientation policy further leads to conserving foreign currency and attaining a large

scale of economies, ultimately leading to economic growth.

Hessels & Van Stel (2011) focused on how new startups established in higher-income countries, which have much-advanced technology, are more export-oriented and contribute to the growth and development of the country compared to low-income groups countries. They also analysed the impact of new startups and its impact on economic growth specifically with reference to export new startups in comparison to domestic new startups. They found a positive relationship between new startups and economic growth, whereas export oriented ventures contribute same as domestic new startups to economic growth.

Dhawan (2013) stated that to be self-reliant, a policy of import substitution is adopted by India, which means replacing the imports of goods with domestic production. This is to generate more employment, reduce the BOP deficit, save foreign exchange reserves, and promote industrialization, which leads to economic growth and social welfare. He further added that implementing the import substitution role is considered very important, who takes courage to bear the risk and arrange all the resources required to establish a new startups. Enterprises producing goods domestically reduce imports and boost the export sector, which saves in precious foreign exchange reserves and helps to correct the disequilibrium in the economy.

Chanderasekar & Prabakaran (2016) discussed that new startups act as a catalyst in economic growth. New startups provide more employment opportunities, improvement in the standard of living, better regional development, promote exports and import substitution. They further stated that exports bring foreign currency into the nation, which additionally helps meet imports bills. Hence import substitution and rise in senses lead to economic independence and development.

–**Bindal et al. (2018)** focus on the importance of new startups and its role in employment generation and innovations. As per their study, awareness regarding startups has been increased after the recent schemes announced by the government. Though while starting the startups there are many problems faced by the entrepreneur like, finance, legal advice, family support, fear of failure etc., due to which there arises the need of constant support by the government to sail these startups through these hardships. Prime Minister's startup campaign plays important role and is a great initiative to give moral boosting to these startups not only in India but also across the globe.

Ranjan (2019) analysed positive and negative impacts of entrepreneurship on economic development. His study was exploratory in nature and reveals that entrepreneurship and startups plays very important role as they not only generates employment, but also reduces poverty and regional disparities. He further stated that success of new startups is not measured from the amount of income they earn rather they are successful when they do what they want to and add value to others lives. Though entrepreneurship may have negative impact in two cases that is when they are socially destructive and more focused on personal gains, and when entrepreneur has low ability which may lead to negative externalities.

3. Objectives of the Study

1. To provide an overview of new startups & export of goods and services in India.
2. To study the relationship between new startups & export of goods and services in India.
3. To study the impact of new startups on export of goods and services in India.

4. Hypothesis of the Study

1. There is no significant relationship between new startups & exports of goods and services in India.
2. There is no significant impact of new startups on export of goods and services in India.

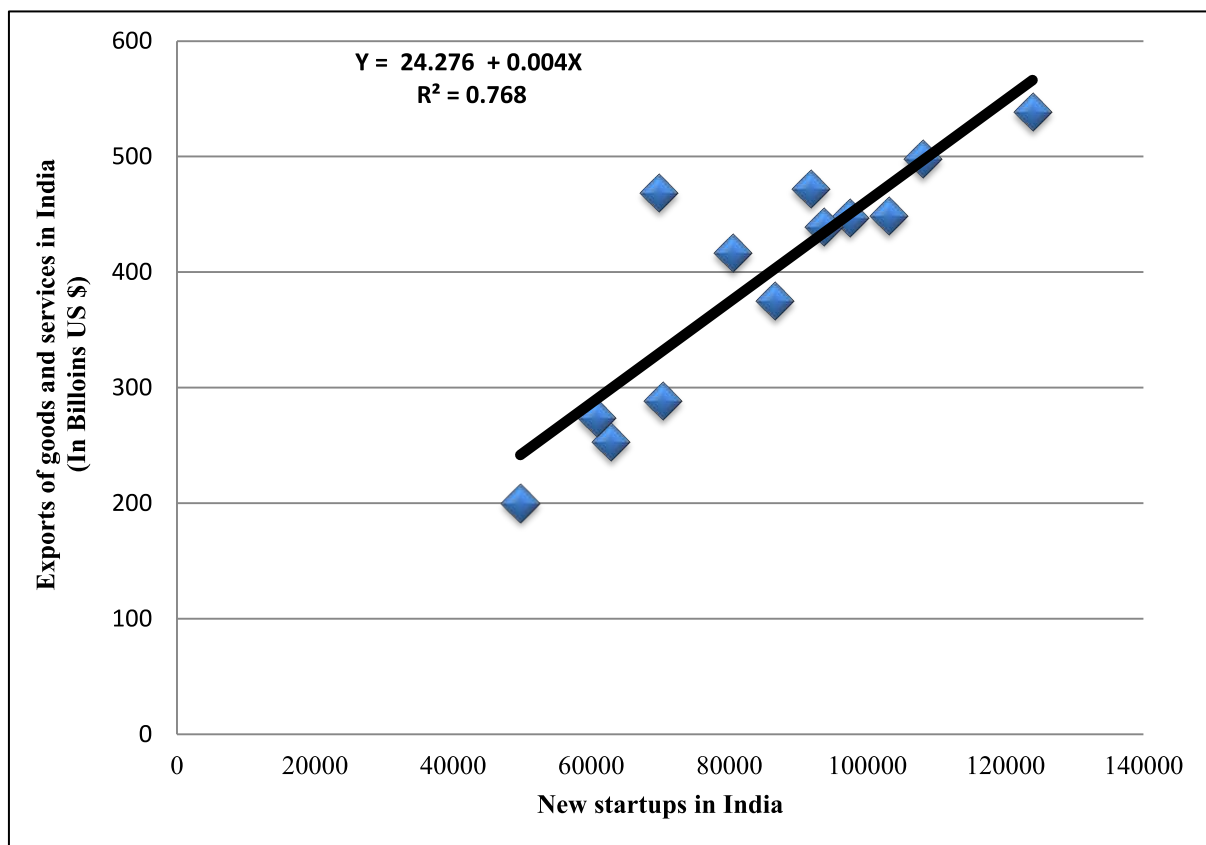
5. Research Methodology

This study is based on secondary data collected from the website of World Bank. The period of study is 2006-07 to 2018-19. Data has been analyzed by applying a coefficient of variation, correlation and regression analysis as the main statistical tools. To begin, the extent of dispersion among the variables was determined using the coefficient of variation. Second, correlation analysis was used to determine the correlation coefficient, representing the link between the two variables. Finally, regression analysis was used to see if there was an observed impact on one variable on another variable. For this study, exports of products and services from India were used as dependent variable, whereas new startups in India were used as independent variable.

$$Y = b_0 + b_1X$$

Where Y = Exports of goods and services in India
(Dependent variable)

X = New startups in India (Independent variable)



Source: Secondary Data (MS-Excel)

Fig. 1: Scatter diagram and trend line between new startups & exports of goods and services in India

Fig. 1 shows a scatter diagram and trend line between new startups & exports of goods and services in India.

The Scatter diagram is less scattered, which shows the significance of the data. The trend line is upward sloping, indicating a positive and strong relationship between the new startups & exports of goods and services in India.

Table 1: Descriptive Statistics

Variables	Arithmetic Mean (1)	Std. Deviation (2)	Coefficient of Variation (C.V) (2)/(1)*100
New Startups in India	84526.3077	21281.70895	25.177
Exports of goods and services in India	393.8996	106.14395	26.946

Source: Secondary Data (SPSS)

Descriptive statistics between new startups & exports of goods and services in India are shown in Table 1. In India, the average value of new startups & exports of goods and services in India is 84526.3077 and 393.8996. Standard deviation value of new startups &

exports of goods and services in India is 21281.70895 and 106.14395, respectively. The coefficient of variations (C.V.) value of new startups & exports of goods and services in India is 25.177 and 26.946, respectively, which is almost similar.

Table 2: Correlation Analysis

	New Startups in India	Exports of goods and services in India
New Startups in India	1	
Exports of goods and services in India	0.877**	1

Source: Secondary Data (SPSS)

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

The correlation coefficient ranges from -1 to +1, indicating that the two variables have a link. Table 2 demonstrates a strong (positive correlation coefficient) link between the two variables. The correlation coefficient between new startups &

exports of goods and services in India is about 0.877, which is statistically significant at the 0.01 level (2-tailed). As a result, the null hypothesis that there is no significant relationship between new startups & exports of goods and services in India is rejected.

Table 3: Regression Analysis

R	R Square (Coefficient of determination)	Adjusted R Square	F	Sig.
.877^a	.769	.748	36.557	0.000

Source: Secondary Data (SPSS)

R Square (Coefficient of determination) measures the strength of relationship/association between the two variables, i.e. new startups & exports of goods and services in India. Table 3 shows the 76.9 % of reliability amongst new startups & exports of goods and services in India. Adjusted R Square is 74.8 % which is significant must close to R Square

(Coefficient of determination). The P-value of regression model 0.000 which is less than 0.05, hence the regression model has statistical significance and a fitness model at 5% level of significance. The study's findings refuted the null hypothesis that no significant impact of new startups on exports of goods and services in India.

Table 4: Regression Coefficients

Variables	Unstandardized Coefficients B	Standardized Coefficients Beta	t-value	Sig.
Constant	24.276		.386	.707
New Startups in India	.004	.877	6.046	.000

Dependent Variable: Exports of goods and services in India

Source: Secondary Data (SPSS)

Table 4 shows regression coefficients of model. The P-value of regression coefficient 0.000 which is less than 0.05, hence the regression coefficients are statistical significant at 5% level of significance. The Beta value of new startups in India is 0.004 which shows that there is positive impact of new startups on exports of goods and services in India. To identify the regression equation, we used the regression coefficients of model on the dataset and got the following result:

$$Y = 24.276 + 0.004X$$

Thus, this study finds a significant correlation coefficient between new startups & exports of goods and services in India. Furthermore, this study also finds positive impact of new startups on export of goods and services in India.

6. Conclusion and Managerial Implications

The low level of capital formation and entrepreneurs has been a significant concern in India for the policy-makers since independence despite having enormous resources available, including human capital. The

quantum of economic activities is the roadmap to increase the economic growth of any economy. However, this paper only discusses the role of new startups & exports of goods and services as major economic activities for an increase in economic growth. Therefore, this paper examines the relationship between the new startups & exports of goods and services in India. Our findings confirm a positive and significant correlation between the new startups & exports of goods and services in India. This paper also found a significant positive impact of new startups on exports of goods and services in India. A likely conclusion is that once new businesses have built their foundation within the economy and have achieved some measure of stability, they will expand into the global market. Thus, creating new startups will lead to a rise in the country's exports of goods and services.

On the whole, it is generally believed that a more globalized world assists emerging economies to have long-term, sustainable economic growth. According

to this research, startups help drive economic growth by increasing the generation of capital and the efficiency of human resources. Moreover, more development of new startups will contribute to the export market, which positively impacts the economy. This paper's discussion will help establish the relationship between the new startups & exports of goods and services in India.

7. Limitation of the Study and Suggestion for Future Studies

The limitation of this study is the data of only a limited period has been taken into consideration. Also, this study focuses only on two variable, i.e. new startups & exports of goods and services. Future studies may include more economic variables to gain more accurate results into the multiple correlation and regression analysis to analyze more dimensions of economic growth. As a result, the conclusions of this study may not apply to other economies. Future studies may include testing whether two or more countries have similarly low export growth rates in their new startup economy.

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Comparative Study on Applications of Environmental Accounting and Auditing Practices for Selected Companies in India

Pratik Shah, Sandip K. Bhatt, Kamini Shah

Abstract

Increased industrial activities and lack of awareness at end of humans with regard to environment protection has led to pollution and disturbed its eco cycle in past years. Now at global level, and also in India the importance of protecting environment has been realised and efforts have been made to have industrial growth but not at the cost of environmental damage. This has given rise to the concept of 'Environmental Accounting' and to verify the same its audit is also done. This article is an attempt in exploring the applications of environmental accounting and auditing at present in India through certain relevant criteria practiced by selected Indian companies.

Keywords: Industrialisation, Environment Environmental accounting and auditing, environment protection.

1. Introduction:

"Environ" a French word translating to "surrounding" is the origin of word 'Environment'. Existence of human kind is possible because of environment only. Because of so much importance of environment, right from ancient times, protection of environment has been taken care of. However, rapid growth of industrialisation and lack of awareness about the damage to environment by certain deeds from human beings, environment got polluted and the entire eco cycle has got disturbed. We are already experiencing negative outcome of not taking care of environment in the form of global warming.

Luckily, this has been realised now and at international level, efforts have been made to protect environment. Industrial growth with sustainability has been introduced now. Our future generation must be given enough natural resources to live their life happily. Proper framework for environmental reporting will certainly create compulsory component on part of corporate to protect environment. There has been no specific accounting format for environmental reporting in India. Companies are disclosing some environmental matters in their annual reports as well as part of their sustainability report on the basis of some guidelines available with respect to environmental reporting in India. In this research paper, authors have tried to comprehend present disclosure practices of selected companies on the basis of environmental parameters identified.

2.1 Literature Review

Environmental accounting and auditing has been an emerging concept. Many Researchers have tried to study various areas related to this topic. Some of such research studies are as under:

(Kumar, 2018) has focused on corporate environmental reporting in India. The researcher has considered Five major industries. From each of this sector, five public and five private sector companies were selected on the basis of ET Wealth 500 Index market capitalisation for the year 2014-15. To examine the data of environmental content, seven major areas of corporate environmental reporting were identified on the basis of the GRI G4 (2014) Guidelines. This research was based on a six-year content examination of fifty corporations' annual and sustainability reports. Most of the environmental disclosures were qualitative in nature and were located in the part of Directors Report of annual report. The highest priority area of the social reporting in Indian companies was Energy and least was the Material and Biodiversity Contribution. The overall trend of environmental reporting in annual and sustainability report of Indian companies was increasing but it was not very satisfactory.

(Omnamasivaya, 2017) studied environmental accounting and disclosure practices of Nifty companies. The study indicated that the environmental disclosures were flexible throughout the years. Size of the companies influenced the degree and quantity of environmental disclosures. The important reasons for low disclosures could be the no compulsory requirements for informing environment information.

(Rachchh & Gadade, 2015) Environmental reporting by Indian Hospitality

Industry was considered. Disclosures were more general or theoretical (qualitative). It lacked consistency thus, disclosure standard were considered unacceptable.

(Jaganathan, 2007) has studied environmental accounting and reporting. He has taken into account 200 top companies for a single year. 20 environmental indicators were identified and grouped into Regulatory environmental Information (7), Accounting Environmental Information (4) and General Environmental Information (9). He has also taken opinion of 143 chartered accountants with respect to environmental accounting and reporting practices. Also six corporate characteristics were also identified to investigate the association between firm characteristics and the state of environmental disclosure. 'The' study concluded that disclosure practices for environmental matters were very poor among selected companies. They have provided detail at various places in annual reports. Strong standards for disclosures were also suggested by chartered accountants. Environmental disclosure was also found to be positively correlated with financial success, age, size, and foreign influence, while being adversely linked with systematic risk.

(Chauhan, 2006) in his study tried to explain the issue of environmental indicators which could be utilized by the corporate sector to adjudge the sustainable administration of environment for better disclosure of actualities identified with environment.

2.2 Research Gap

From the above review literature, it can be observed that at present corporate world has been forced by various stakeholders to consider environmental accounting and auditing as their part of social responsibility. Still there has been no universally accepted model to disclose environmental accounting and auditing aspect in books of account. Considering this research gap, in this research paper application of environmental accounting - auditing at India level has been tried to be touched up on.

3. Research Methodology

3.1 Research design

The basic purpose is to systematically carry out study on import phases of environmental accounting and auditing practices of corporate houses of India. Therefore, a case study for four selected Indian companies has been taken into account in this research study. Under case study, an analysis is done to understand practices like environmental accounting, auditing & disclosure of selected Indian companies

from Steel and Petroleum sector.

Methodology to be followed for Case study of selected four Indian companies

Analytic-descriptive approach is adopted by reviewing financial documents to observe and study the reporting practices from the reports of 5 years from 2015-16 to 2019-20.

Following variables are considered on the basis of review of past studies and sensitivity of environmental accounting:

- (i) Awards and accolades for environmental performance received by company
- (ii) Global Reporting Initiatives (GRI) adoption
- (iii) Framing of Environmental Policy.
- (iv) ISO 14001 certification
- (v) Using renewable energy sources in the company.
- (vi) R&D for environmental protection by the company.
- (vii) Carbon disclosure
- (viii) Materiality. - Materiality Map to map each Sustainability matter along 2 dimensions – what are shareholder expectations and how significant it is to business achievement.

3.2 Scope of the study

Companies from developed countries has been doing well as compared to developing countries with respect to environmental disclosure practices. In India, government and regulatory body SEBI has been issuing various guidelines from time to time for companies to disclose environmental matters in their annual reports. As uniform model for incorporating environmental accounting and auditing has been yet to be finalised, companies need to disclose environmental matters on their own way. Present research work will throw light on existing disclosure practices through case study of four selected companies.

3.3 Research objectives

- 1) To understand the basic concept of environmental accounting and auditing framework.
- 2) To study applications of environmental accounting and auditing with reference to disclosure practices adopted by selected Indian companies.
- 3) To compare performance of selected companies on the basis of identified environmental parameters.

3.4 Formulation of hypothesis

H₀- There is no significant difference in Disclosure of Environmental Related Parameters in TATA Steel Limited Steel Authority of India Limited, Reliance Industries Limited and Gas Authority of India Limited in their annual reports for the time span of five years from the year 2015-16 to the year 2019-20.

3.5 Sampling techniques

For case study, sample are comprising four corporate giants belonging to environment sensitive industry have been taken into account. For analysis purpose two public sector and two private sector companies have been selected. Selected Companies are SAIL, TATA Steel, Reliance industries and GAIL.

3.6 Sources of data collection

The required data and other relevant information have been collected from published annual reports and sustainability reports of selected companies' available from their websites for five years from 2015-16 to 2019-20.

3.7 Limitation of the study

Selection of only four companies under research work is the main limitation of this study.

3.8 Further scope of the study

Environmental accounting and auditing has been a developing concept and hence there are many areas for future research. Future researchers can study more number of companies with new and environmental parameters.

3.9 Usefulness of the study

By understanding existing disclosure practices of companies one can provide basic idea for companies and all its stakeholders to improve environmental reporting practices so that all can be benefited.

4.1 Environmental Accounting

Environmental Accounting was first accepted in Norway in 1970s and in India, it is followed only in environmental sensitive businesses. It is basically all about incorporating environmental costs and benefits and also environmental assets and liabilities into accounts of companies.

Environmental accounting is having scope which can be classified from view point of national level, company level and management level. By implementing environmental accounting properly within company, environment protection will be possible within country also.

4.2 Legal Structure for Environmental Accounting in India

As manufacturing licensing for all real-world purposes has been terminated, the focus has now been on environmental clearance from various government authorities. With growing global concern about environmental conservation, India has also set up a Union Ministry of Environment to coordinate environmental protection and anti-pollution creativities among the various states and departments. Essential legislation has also been passed.

In July 2011, the Ministry of Corporate Affairs of India released the 'National Voluntary Guidelines on Corporate Social, Environmental and Economic Tasks. 'Such guidelines include detailed standards to be implemented by businesses as portion of their business practices, and a standardized company compliance reporting system involving such clear reports, showing the measures that companies have taken to enforce certain standards (SEBI, 2015). These guidelines have been revised in the year 2018.

Recently, on May 10, 2021, SEBI has issued guidelines for new business responsibility and sustainability reporting which will be applicable on the top 1,000 listed entities by market capitalisation. This report will replace the existing BR reports. All companies will require to implement this new reporting from the year 2022-23.

4.3 Environmental auditing

It is a tool primarily used for measurement of the effects of some activities on the environment by comparison against determined criteria and standards.

Types of environmental audit are bifurcated as per standards and its focus. Almost all types of firms are now giving importance to the environmental areas and activities as stakeholders have started to focus on it. It helps to improve the operations in a way that the adverse effects on the environment is curbed down for cleaner, better and healthier future.

International Organization for Standardization (ISO) has given many standards in this area which are intended to guide organisations with compliance and auditors for the execution of environmental audits.

5.1 Content Analysis:

5.1.1 Tata Steel Ltd.

The Company was initially established on August 26, 1907 as a public limited establishment under the terms of the Indian Companies Act, 1882, as "The Tata Iron and Steel Company Limited". The company was founded by the founder of the Tata group, Jamsedji N. Tata (Tatasteel, 2019)

Table 1: Tata Steel Ltd. - Disclosures of Environmental Related Parameters

Sr. No.	Name of parameter	2015-16	2016-17	2017-18	2018-19	2019-20
1	Awards and accolades for environmental performance	YES	YES	YES	YES	YES
2	Global Reporting Initiatives	YES	YES	YES	YES	YES
3	Environmental Policy	YES	YES	YES	YES	YES
4	ISO 14001	YES	YES	YES	YES	YES
5	Renewable Energy usage	YES	YES	YES	YES	YES
6	Research and development in the environmental area	NO	YES	YES	YES	YES
7	Carbon disclosure	YES	YES	YES	YES	YES
8	Materiality. - Materiality Map	NO	YES	YES	YES	YES

Thus, the company has disclosed 6 parameters namely awards received for environmental matters, environmental policy, carbon disclosure, ISO 14001 certification, renewable energy and global reporting initiatives for all five years. Research and development for environmental area and materiality are not disclosed only for one year out of five years during 2015-16 to 2019-20.

5.1.2 Steel Authority of India Limited

SAIL was rationalised as an independent company in 1978. Since its inception, SAIL has been contributory in laying a sound substructure for the industrial development of the country (SAIL, 2019)

Table 2: SAIL- Disclosures of Environmental Related Parameters

Sr. No.	Name of parameter	2015-16	2016-17	2017-18	2018-19	2019-20
1	Awards and accolades for environmental performance	YES	YES	YES	NO	YES
2	Global Reporting Initiatives	YES	YES	YES	YES	YES
3	Environmental Policy	YES	YES	YES	YES	YES
4	ISO 14001	YES	YES	YES	YES	YES
5	Renewable Energy usage	YES	YES	YES	YES	YES
6	Research and development in the environmental area	NO	NO	NO	NO	NO
7	Carbon disclosure	YES	YES	YES	YES	YES
8	Materiality. - Materiality Map	NO	NO	YES	YES	YES

Thus, the company has disclosed 5 parameters namely environmental policy, carbon disclosure, ISO 14001 certification, renewable energy and global reporting initiatives for all five years. Research and development for environmental area has not been disclosed for any year out of five years during 2015-16 to 2019-20. The company has not received any award in the year 2018-19 for any environmental matter. The company has not disclosed materiality for 2 years out of five years.

5.1.3 Reliance industries Limited

In 1966, Dhirubhai Ambani formed Reliance Commercial Corporation as a polyester business. On May 08th, 1973, it was retitled Reliance Industries. Later, Reliance joined financial services, oil refining, and the power market. By 2002 Reliance had grown into a conglomerate worth US\$ 15 billion (RIL, 2019).

Table 3: Reliance industries Limited - Disclosures of Environmental Related Parameters

Sr. No.	Name of parameter	2015-16	2016-17	2017-18	2018-19	2019-20
1	Awards and accolades for environmental performance	Yes	Yes	Yes	Yes	Yes
2	Global Reporting Initiatives	Yes	Yes	Yes	Yes	Yes
3	Environmental Policy	Yes	Yes	Yes	Yes	Yes
4	ISO 14001	Yes	Yes	Yes	Yes	Yes
5	Renewable Energy usage	Yes	Yes	Yes	Yes	Yes
6	R & D in the environmental area	Yes	Yes	No	Yes	Yes
7	Carbon disclosure	Yes	Yes	Yes	Yes	Yes
8	Materiality. - Materiality Map	Yes	Yes	Yes	Yes	No

Thus, the company has disclosed 6 parameters namely awards received for environmental matters, environmental policy, carbon disclosure, ISO 14001 certification, renewable energy and global reporting initiatives for all five years. Research and development for environmental area and materiality are not disclosed only for one year out of five years during 2015-16 to 2019-20.

5.2.4 Gas Authority of India Limited

The company was previously known as India Limited Gas Authority. Gas Authority of India, joining the newly-found vigour into its company individuality, was renamed GAIL (India) Limited on 22 November 2002 (GAIL, 2019).

Table 4: GAIL- Disclosures of Environmental Related Parameters

Sr. No.	Name of parameter	2015-16	2016-17	2017-18	2018-19	2019-20
1	Awards and accolades for environmental performance	No	Yes	Yes	No	Yes
2	Global Reporting Initiatives	Yes	Yes	Yes	Yes	Yes
3	Environmental Policy	Yes	Yes	Yes	Yes	Yes
4	ISO 14001	No	No	No	No	Yes
5	Renewable Energy usage	Yes	Yes	Yes	Yes	Yes
6	Research and development in the environmental area	No	No	Yes	Yes	Yes
7	Carbon disclosure	Yes	Yes	Yes	Yes	Yes
8	Materiality. - Materiality Map	No	No	No	No	No

Thus, GAIL has disclosed environment policy, renewable energy usage, GRI and carbon emission for all five years. It has received award for environmental matter and spent for research and development for environmental matters for 3 years out of five years. Disclosure of materiality map was not carried out even for a single year. The company has ISO 14001 certification only for one year out of five years.

5.3 Summary of disclosure of Environmental Related Parameters by selected companies

Based on the individual selected companies environmental performance on ground of the identified eight environmental parameters, the summary of disclosed parameters for five year during 2015-16 to 2019-20 can be narrated as under.

Table 5: Summary of disclosure of environmental parameters by selected companies

No.	Name of environmental parameter	For how many number of years disclosed by TATA STEEL Limited , out of five years	For how many number of years Disclosed by SAIL , out of five years	For how many number of years disclosed by RIL , out of five years	For how many number of years disclosed by GAIL , out of five years
1	Awards and accolades for environmental performance	5	4	5	3
2	Global Reporting Initiatives	5	5	5	5
3	Environmental Policy	5	5	5	5
4	ISO 14001	5	5	5	1
5	Renewable Energy usage	5	5	5	5
6	Research and development in the environmental area	4	0	4	3
7	Carbon disclosure	5	5	5	5
8	Materiality. - Materiality Map	4	3	4	0

Thus, we can observe that all four companies have been able to disclose four parameters namely environmental policy, carbon disclosure, renewable energy and global reporting initiatives for all five years. TATA steel limited and RIL have disclosed awards received for environmental matter for all five years while SAIL and GAIL have disclosed it for 4 and 3 year respectively. As far as research and development for environmental related matter is concerned, disclosure of SAIL is very poor as it has not disclosed it for any year during five years from 2015-16 to 2019-20, while TATA Steel limited and RIL have disclosed it for 4 years and GAIL has disclosed it for 3 years out of five years. All companies except GAIL disclosed ISO certification for all five years. GAIL has

disclosed it for only 1 year. TATA Steel limited and RIL have disclosed materiality for 4 years while SAIL has disclosed it for 3 years and GAIL has not disclosed even for a single year out of five years. Therefore, we may say that overall performance of TATA Steel limited and RIL is better than SAIL and GAIL in disclosing environmental parameters. All four companies are doing well but still SAIL and GAIL need to invest more for research and development for environmental related matters.

5.4 Kruskal-Wallis Test (ANOVA)

Now, let us test the hypothesis with statistical method. Here, non-parametric test has been applied for the same.

Table 6: Kruskal-Wallis Test (ANOVA)

Test Statistics ^{a,b}	
	Environmental Related Parameters
Chi-Square	3.108
Df	3
Asymp. Sig.	.375

a. Kruskal Wallis Test

b. Grouping Variable: selected companies

Thus, as p-value of Kruskal-Wallis Test greater than 0.05 which indicate that H_0 is not rejected at 5% significance level. It indicated no significant difference in Disclosure of Environmental Related Parameters in all three companies.

6. Conclusion

It may be concluded that environmental accounting and auditing has established its importance globally and in India too. Various initiatives have been taken on international level and at India to adopt environmental accounting and auditing in books of accounts of business firms. It is highly required to decide common framework for all business organisations with reverence to environmental accounting & auditing globally. It is also needed to have compulsion for disclosing certain environmental parameters to integrate environmental accounting & auditing in books of accounts on part of companies to make it more fruitful. The case study of selected four companies implies that all companies are doing well in disclosing environmental parameters, which is a positive sign for the economy. As government, companies, public and all other stakeholders of economy have realised importance of environmental accounting and auditing, we can stay relax about

implementation of environmental accounting & auditing by all companies is just matter of time.

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Stock Market Return and Market Sentiment: Evidence from Indian Stock Market

Ashoke Mondal

Abstract

Sentiment is one of the crucial factors that influence the return of the stock market. This paper makes an attempt to examine the connection between stock market return and market sentiment by using daily data from National Stock Exchange over a period of April, 2001 to March, 2021. In this study, daily trading volume and Nifty 50 indices have been used for the measurement of sentiment and return of stock market. Using Vector Autoregressive model and Granger causality test, the dynamic relationship between market sentiment and stock market return has been studied. From the findings of this study, it has been revealed that there is one way causality from return to sentiment, but no causality is running from sentiment to return.

Keyword: Sentiment, Return, Vector Autoregressive, Granger-causality

1. Introduction

Whether market sentiment influences the stock market return? or stock return influences market sentiment? There is a considerable debate on this issue in the field of empirical finance. Sentiment is a psychological aspect of investors that reflects expectation of a particular investor about the market. On the other hand, market sentiment reflects the overall thoughts and feelings of the investors regarding the movement of the market. It is an important factor that influences the investment decisions. It is the tendency of the investors to make investment decisions based on emotions and noise rather than facts. In conventional theories of finance, it is assumed that investors are rational. They want to exploit the profit opportunities when mispricing of assets arises. It also eliminates the sentiment effect. In this context, Efficient market hypothesis (**Fama, 1965**) advocates the efficiency of financial markets. According to this theory, price of any security incorporates fundamental information. They also assumed that investors behave rationally and should determine the value of security based on the future cash flows and expected rate of return. So, price of any security reflects intrinsic value of that security. If few investors behave irrationally, then their activities are offset by the activities of the arbitrageurs. On the other hand, behavioural scientists assume that investors are basically irrational. According to them, investor's decisions are mainly influenced by their emotion. It is very difficult to predict their behaviour in reality (**Kuzmina, 2010**). They basically influenced by sentiment waves from the external world. Investors are basically optimistic or pessimistic. They have made incorrect estimation regarding the value of stock. As a result, asset pricing deviate from its intrinsic value or fundamental value. **Shiller (1981)** also did not support the rationality behaviour of the investors. According to his view, stock price may be influenced by the factors other than fundamental factors. The return of a stock is influenced by a large number of factors. Some of these factors are fundamental factors and some of these factors are external factors. **Black (1985)** focused on the behaviour of noise traders. They trade securities based on noisy signals or sentiment. As a result, actual security price deviate from true intrinsic value. They noticed that sentiment has positive impact on returns and negative impacts on the volatility of returns.

According to **Bos and Anderson (1988)**, stock prices depend on the future cash flows and profitability of the concern. Future cash flows mainly depend on consumer demands which is a function of the consumer's behaviour and consumer's sentiment. In this perspective, it is assumed that return is positively related with market sentiment. On the other hand, **Baur, Quintero and Stevens (1996)** mentioned that stock prices depend mainly on two factors such as fundamental factors and investor's sentiment. Price of any security is related with the expected rate of return that is influenced by the investor's sentiment. So investor sentiment is an important factor that plays a vital role in investor's decision making process. So, Traditional asset pricing theory did not consider the role of sentiment seriously, but behavioural scientists has considered sentiment as one of crucial factors in asset pricing theory. In this study, an attempt has been taken to study the connection between market sentiment and stock market return.

2. Review of Literature

In respect of relationship between investors' sentiment and return of stock, a lot of studies have been made by different eminent authors. Some of the studies are:

Ahmed and Ullah (2013) have examined the influence of sentiment on returns of Karachi Stock Exchange (KSE). In their study, different variables such as GDP, inflation, Government expenditure rate have also been considered along with sentiment variable. For the purpose of their study, investor's sentiment has been measured by constructing an index using different variables such as dividend, initial public offering, first day return and trading volume. Here, Autoregressive Distributed Lag (ARDL) model has been used. The findings of their study revealed that stock return is negatively influenced by inflation and is positively influenced by GDP. They also found that stock return is positively influenced by investor's sentiment.

Naik and Padhi (2016) have tried to examine the connection between volatility of the stock market and sentiment of investor. In their study, sentiment index has been developed with the help of some market indicators and by using principal component analysis. Here, Vector Autoregressive model and Granger causality test have been applied for testing causality between sentiment and return. Apart from these, EGARCH-M model has been used for testing the influence of sentiment of volatility on stock return. The results showed bidirectional causality between the select variables. They also showed that volatility of the return is negatively associated with sentiment of the investors.

Tuyon et al. (2016) examined the influence of investor's sentiment on return in Malaysia. In their study, three indices such as consumer confidence index, business condition index and stock future index have been considered for estimation of return by using Auto regressive distributed Lag model. The findings of their study revealed both long term and short term connection between the sentiment proxy and return of Malayasian stock market. They also concluded that the results may vary for different size, industry and market states.

Using panel regression, **Anusakumar et al.(2017)** investigated the impact of sentiment on stock return. In their study, both individual stock sentiment and market sentiment along with firm's characteristics variables and macroeconomic variables have been considered. They also is considered trading volume for measurement of sentiment variable. Estimating fixed effects model, they found that stock return is positively associated with investors's sentiment. The results also indicate that market sentiment has less influence on return than stock specific sentiment.

Dynamic relationship between sentiment of the investor and stock return has also been studied by **Junwen and Xinxin (2017)**. Using Granger causality test, they have shown that there exist casual relationship between sentiment and return. Here, EGARCH model has also been estimated. They have shown that volatility of returns is mainly caused by bad news rather than good news.

Ahmed (2018) studied the effect of sentiment on volatility of returns in Indian stock market. In his study, several variables such as dividend premium, first day return of initial public offering, traded volume, closed end mutual fund discount, margin borrowing, stock turnover ratio have been used for measuring investors' sentiment. For that purpose, ARCH model has been estimated. He concluded that investor's sentiment is not solely responsible for increased volatility of stock market, there may be other factors that may affect volatility of stock market.

Using ARCH regression model, **Rupande et al.(2019)** have shown that there is a significant association between investor's sentiment and volatility of return. In their study, a composite index has been developed from a set of proxies for measuring sentiment. From their study, they concluded that behavioural finance has important role in analysing the behaviour of stock market.

Using principal component analysis on monthly data of market related implicit indices, **Haritha and Rishad(2020)** have constructed irrational sentiment index. They have also analysed the contribution of sentiment to volatility of return by applying GARCH model and Granger causality test. They concluded that irrational sentiment along with asymmetrical effects of inefficient market increases the volatility of stock market.

3. Statement of problem

Traditional asset pricing theory did not consider the role of sentiment seriously, but behavioural scientists has considered sentiment as an important variable in analysing the return and volatility of return A lot of studies have been conducted on the relationship between the sentiment and stock return. Some of the researchers have highlighted positive influence of sentiment on return while other researchers have shown the negative influence of sentiment on return. According to noise trader approach, stock return is influenced by sentiment, but from the empirical evidence, it has been established that sentiment is influenced by stock returns. Hence, the empirical evidence on the relationship between sentiment and stock return is controversial. Hence, further study is needed in this respect.

4. Objective of the study

The purpose of this study is to analyse the dynamic

inter-relationship between stock market return and market sentiment. The study will provide some insights that would form a theoretical basis for behavioural analysis.

5. Material and method used

5.1. Data and period of study:

In this study, the relationship between investor's sentiment and stock return has been studied using secondary data. For the purpose of the study, daily data have been collected for the period from 1st April, 2001 to 31st March, 2021. Daily Nifty 50 prices and trading volume data have been collected from Capitaline database for that period.

5.2. Variable used for the study

For the purpose of the study, two variables have been used.

Market return: Here, Nifty 50 has been considered as market proxy. It is one of the important indices in National Stock Exchange (NSE). Nifty 50 index is constituted by taking fifty stocks from different stock and return of the stock market has been measured as follow,

Market return (R_t) = $\ln(I_t/I_{t-1})$, Where, I_t Closing index value for the time period t

I_{t-1} = Closing index value for the time period t-1

Market Sentiment: Different studies used different proxies for measuring sentiment. Some studies use consumer confidence index for measuring investor's sentiment. Some other studies have formed sentiment index by taking different various variables such as dividend, initial public offering, first day return, IPO volume and trading volume etc. To measure overall market sentiment, daily trading volume of Nifty 50 indices has been used. Market sentiment has been measured by the following way

Market sentiment (S_t) = $\ln(TV_t/TV_{t-1})$

TV_t = Trading Volume for the Nifty 50 index at time period t

TV_{t-1} = Trading Volume for the Nifty 50 index at time period t-1

5.3. Techniques used for the study:

For avoiding any spurious results, stationary property of the variables have been checked. For checking stationary property of the variables, Augmented Dickey Fuller test has been used. The test has been done using the following regression equations.

$$\Delta y_t = \beta + \delta y_{t-1} + \alpha_i \sum_{i=1}^m \delta y_{t-1} + \varepsilon_t$$

$$\Delta y_t = \beta + \beta_1 t + \delta y_{t-1} + \alpha_i \sum_{i=1}^m \delta y_{t-1} + \varepsilon_t$$

Here, The following null hypothesis has been adopted:

H_{01} : Return series contain unit root.

H_{02} : Sentiment series contain unit root,

For studying the dynamic relationship between variables, Vector Autoregressive model has been used

$$Y_t = A_0 + A_1 Y_{t-1} + A_2 Y_{t-2} + \dots + A_p Y_{t-p} + \varepsilon_t$$

Where, Y_t is k*1 order endogenous variable column vector.

A_0 is k*1 order constant column vector.

A_1, A_2, \dots, A_p are all k*k order parameter matrix

ε_t is k*1 column vector disturbance term

In the VAR model, two variables such as return and market sentiment have been considered. For determination of optimum lag of VAR model, AIC, HQIC and SBIC criteria have been used.

To test the direction of causality between the variables, Granger Causality test has been conducted by estimating the following equations.

$$R_t = a_1 + \sum_{i=1}^n \alpha_i R_{t-i} + \sum_{j=1}^n \beta_j S_{t-j} + \varepsilon_{1t}$$

$$S_t = a_2 + \sum_{i=1}^n \gamma_i S_{t-i} + \sum_{j=1}^n \delta_j R_{t-j} + \varepsilon_{2t}$$

Here, the following null hypotheses have been formulated:

H_{03} : Market sentiment does not Granger cause stock market return

H_{04} : Stock market return does not Granger cause market sentiment

Analysis and findings

Initially stationary property of variables have examined for avoiding any spurious results. For that purpose, Augmented Dickey Fuller unit root test has been used. The results have been shown in table 1.

Table 1: Results of unit root test

Variables	At level(With intercept)			
	ADF statistics	Critical Value		Prob.
		1% level	5% level	
Return	-66.88	-3.43	2.86	0.0000***
Sentiment	-32.08	-3.43	2.86	0.0000***
Variables	At level(With intercept and trend)			
	ADF statistics	Critical Value		Prob.
		1% level	5% level	
Return	-66.88	-3.96	-3.41	0.0000***
Sentiment	-32.08	-3.96	-3.41	0.0000***

Source: Compiled by the author, *** significant at 1% level

Augmented Dickey Fuller test has been conducted for both the variables in two cases: with trend and without trend. The results show that ADF test statistics for both the variables are higher than critical value. It implies that they are significant at 1% level. So null hypothesis i.e the series has unit root, is rejected for both the variables. It indicates that both the series are stationary at level. Since, the variables are stationary at level, Vector Autoregressive model has been used to

study the dynamic relation between return and sentiment. The model is based on selection on appropriate lag length. For determination of appropriate lag length, different information criteria such as sequential modified LR test statistics(LR), Final Prediction Error (FPE), Akaike Information Criteria(AIC), Schwarz Information Criteria(SIC) and Hannan Quinn Information Criteria (HIC) have been used. Table 2 shows the results of lag selection criteria.

Table 2: Lag selection Criteria

Lag	Log L	LR	FPE	AIC	SIC	HQ
0	12564.68	NA	2.17E-05	-5.06152	-5.05889	-5.0606
1	12958.7	787.557	1.86E-05	-5.21865	-5.21079	-5.2159
2	13090.51	263.3645	1.76E-05	-5.27015	-5.25704	-5.26555
3	13173.38	165.5058	1.71E-05	-5.30193	-5.28357	-5.29549
4	13221.46	95.9704	1.68E-05	-5.31968	-5.296078*	-5.31141
5	13225.47	8.004917	1.68E-05	-5.31969	-5.29084	-5.30957
6	13237.37	23.74314	1.67E-05	-5.32287	-5.28878	-5.31092
7	13248.58	22.35168	1.67E-05	-5.32578	-5.28643	-5.31198
8	13258.81	20.39264*	1.66E-05*	-5.328288*	-5.2837	-5.312654*

Different information criteria indicate different lags. Here minimum lag 4 is selected according to Schwarz

Information Criteria (SIC) and the estimated VAR model is shown in table 3.

Table 3: Results of VAR analysis

Independent variable(Lag)	RETURN	SENTIMENT
RETURN(-1)	0.055516	-0.637934
	-0.01422	-0.29042
	[3.90357]***	[-2.19659]*
RETURN(-2)	-0.03056	-0.069097
	-0.01425	-0.29104
	[-2.14420]*	[-0.23741]
RETURN(-3)	0.011012	-0.592619
	-0.01425	-0.29102
	[0.77270]	[-2.03635]*
RETURN(-4)	0.001532	-0.221592

	-0.01424	-0.29069
	[0.10762]	[-0.76229]
SENTIMENT(-1)	0.00095	-0.531668
	-0.00069	-0.01409
	[1.37726]	[-37.7454]***
SENTIMENT(-2)	0.000786	-0.351937
	-0.00076	-0.01558
	[1.03039]	[-22.5876]***
SENTIMENT(-3)	0.000874	-0.250725
	-0.00076	-0.01558
	[1.14547]	[-16.0929]***
SENTIMENT(-4)	0.00051	-0.138601
	-0.00069	-0.01409
	[0.73933]	[-9.84015]***
C	0.000499	-0.000441
	-0.0002	-0.00412
	[2.47716]*	[-0.10726]
R-squared	0.004341	0.229509
Adj. R-squared	0.002735	0.228266
Sum sq. Resids	0.995466	415.1153
S.E. equation	0.014168	0.289326
F-statistic	2.702861	184.6445
Log likelihood	14102.76	-883.461
Akaike AIC	-5.673817	0.359284
Schwarz SC	-5.662022	0.371079
Mean dependent	0.000517	-0.00054
S.D. dependent	0.014188	0.329347

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

In the Vector Auto-regressive Model, four lags have been considered. The results show that return is influenced by its previous lags. In case of first lag, coefficient is 0.056 and t value is 3.903. it is significant at 1% level and in case of second lag, coefficient is also significant at 5% level, but there is no significant short-term causality running from sentiment to return as the coefficients of different lags of sentiment variable are not statistically significant. On the other

hand, the coefficients of first lag (-0.638) and coefficient third lag(-0.592) of return variable are also statistically significant at 5% . It means that sentiment is influenced by the previous lags of return as well as previous lags of sentiment variable. Therefore, it can be concluded that no short term causality is running from sentiment to return but short term causality is running from return to sentiment.

Table 4 : Results of Granger causality test

Dependent variable: Return			
Independent Variable	Chi-sq	Df	Prob.
Sentiment	2.568872	4	0.6323
Dependent variable: Sentiment			
Independent Variable	Chi-sq	Df	Prob.
Return	9.688759	4	0.046*

Source: Compiled by the author, * significant at 5% level

Table 4 shows the results of Granger causality test. From the table, it has been revealed that Chi-square value (2.5688) is not statistically significant at 5 % level but the impact of return on sentiment is significant. Here chi-square value (9.689) is significant at 5 % level. It means sentiment does not Granger cause returns but returns Granger cause sentiment at 5% level. It means short term causality is running from returns to sentiment. It is also reflected from the results of VAR analysis.

Conclusions

The study is conducted to examine the dynamic relationship between the stock return and investor's sentiment. Here trading volume of Nifty 50 has been used as measurement of market sentiment. The result showed that stock return is not influenced by the sentiment. This is mainly due to the fact that stock return is influenced by many factors such as macroeconomic and other factors. Sentiment has no significant impact on the stock return but sentiment seems to be influenced by the stock return which indicates one way causality is running from returns to sentiment. It also implies that good or bad news regarding the changes of return and macro economic factors also change the behaviour of the investor. They become optimistic or pessimistic and that is manifested through their trading behaviour.

The main limitation of the study is that here one variable i.e trading volume has been used for measuring market sentiment. Other variables may also be used for measuring market sentiment. Secondly, stock return is influenced by not only investor's sentiment, but also other factors such as macroeconomic factors and fundamental factors also influence the stock return. It will be more appealing, if the study is to be conducted by taking investor sentiment along with other fundamental and macro economic factors.

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A study on the Human Resource challenges and opportunities for the sustainable rural tourism development in Aurangabad district

Saurabh Krishna, Kiran Bedi

Abstract

The present paper is based and focused more upon the current discussion about human resource development and the challenges related to the sustainability practices at the rural destinations which are necessary to be addressed at all levels. Many studies have been conducted on the human resource challenges for the urban hotels and resorts however very few or no studies have been carried out on the rural areas especially for the Aurangabad district of Maharashtra. This paper highlights and examines the relationship between human resource development, the need for skill training, and the level of awareness about sustainability and different practices followed at the grass-root level. For this study, a Qualitative research method has been used, with the help of in-depth – semi-structured interviews of the resort owners, employees, local community members, and tourists. The findings of the current study and in-depth discussion with the tourism stakeholders have unfolded many real-time challenges, difficulties, operational issues, manpower challenges, and even the newer possibilities and scope for the development of sustainability-based rural tourism products and services.

Keywords: Human resource challenges, Sustainability, Rural tourism, Skill development

1) Introduction

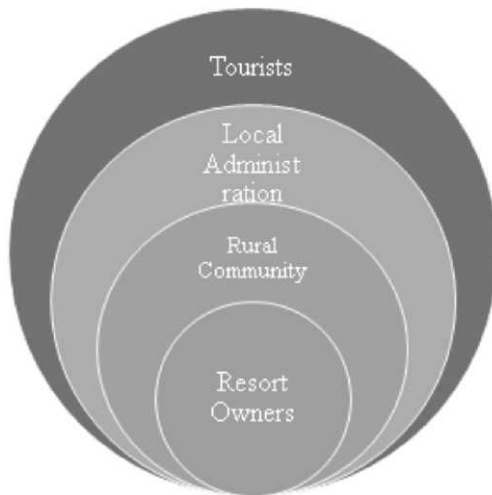
Tourism development has always been viewed as a major tool and a catalyst for the development of any destination. The process of tourism development involves the local community, local resources, the destination, different attractions, human resources, and even the infrastructure which are some of the major components of tourism development. The availability of human resources, participation of the local community, the optimum utilization of local resources, and the sustainable development of tourist's destination plays a major role in the development of rural destination having said that there are many major challenges and difficulties also being faced by the stakeholders and the business owners. The villages and rural areas in India hold a unique place when it comes to the social, economic, and environmental spheres. The rural development phenomenon and the growth of rural tourism is becoming more and more complex despite the technological advancement, increased facilities, and limited availability of resources especially after the post - independence period. Rural tourism development and growth has a long history in India however the researcher believes that many approaches, philosophies and the policies still needs to be examined to understand the rural tourism development in India and especially in the Aurangabad district of Maharashtra.

The main aim and the purpose of this paper is to highlight the different HR challenges being faced by the rural resort owners, tourism stakeholders and also to understand the scope and opportunities for sustainable rural tourism development in the Aurangabad district. However, the paper has also tried to highlight the current sustainable practices being followed by some of the stakeholders and the level of awareness in the tourists and the stakeholders who are directly or indirectly associated with the rural tourism in Aurangabad district.

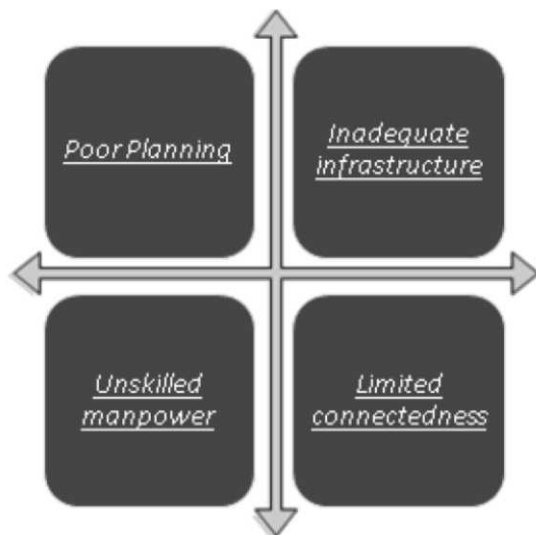
2) Rural Tourism: - The Niche Market

India as a country is rich in culture, heritage, and traditions, and when it comes to rural destinations it has many more to offer which is unique, basic, and authentic. Rural India is full of colors, greenery, fresh air, people with warmth even a wide range of rural art, handicraft, folk songs, folk dances, local sports activities, local recreational facilities, yoga practices, traditional and old health care system, organic food production and consumption, basic lifestyle and unique customs and cultures (Upadhye, 2015 & Pagdhare, 2011). Aurangabad being the tourism capital of Maharashtra is witnessing a sharp increase in the demand for rural tourism and a trend of urban tourists visiting the rural farm quite often has been on a sudden rise. According to the owner of Hiranaya Rural resort, in the last few years, the number of domestic tourists and their repeat visits have increased, there is also a change in the trends and demand pattern of the tourists visiting the rural resorts.

(Cawley & Gillmor, 2008 & Argent, 2011) highlighted that in the rural areas there are multiple stakeholders such as tourists, resort owners, host community, CSO's and even government organizations and in most of the cases achieving common ground between the rural stakeholders are highly difficult which results in poor development and uneven growth pattern.



(Baum, 2002) has argued that rural tourism development is often characterized by poor planning, inadequate infrastructure, unskilled manpower, and limited connectedness between different stakeholders, and this limits progress and the equitable spread of any associated benefits.



(Source: - Baum, 2002)

Rural tourism has always proved itself to be a growing phenomenon and Aurangabad being rich in rural and tourism attraction adopted the local Maharashtra theme for attracting and showcasing the rural life and culture of Maharashtra since these tourism concepts and initiatives are resulting in a varying degree of success at the same time it also encounters many problems and issues related to human resource and sustainability.

2.1) Human Resource & Skill Development:-

No doubt the tourism industry especially when it comes to employment has a poor reputation for hiring permanent employees, offering low-grade salaries, no work-life balance, absence of career graph, and limited opportunities for career growth and development (Wood, 1995 & Baum, 2002). As the

industry is growing and the demand for skilled manpower is also increasing, every tourism and hospitality firm needs to have proper mapping and recruitment methods, training programs, and a detailed career progression plan should be ready for each employee (Barron, 2008). Even the NGOs, skill development agencies, NSDC, and government-owned training centers will have a pivotal role to play to offer skilled and qualified professionals to the industry and to minimize the HR challenges being faced by the rural resorts (Swain, 2006). This paper aims to highlight the HR issues and challenges, current sustainability measures, and the level of awareness about the eco-friendly behavior in the resort owners, employees, and even the tourists visiting the rural areas of Aurangabad.

2.2) Aurangabad – The Tourism Capital of Maharashtra & Hub for sustainable development:-

Aurangabad tourism offers a wide range and variety of tourism themes such as heritage, leisure, adventure, pilgrimage, eco-tourism, rural tourism, and even medical tourism. In the last few years, there has been an increase in the awareness and positive response for the acceptability of sustainability in the Aurangabad region especially in the rural areas of Khultabad, Daultabad, Verul (Ellora caves), Fardapur (Ajanta caves), and in the parts of rural attraction sites. The concept of sustainable development has always been viewed as an approach by which efforts are made to balance the benefits or outputs of the industry to ensure that the industry can continue to exist without depleting or destroying the resources base on which it depends (Keller, 2017). However, when we talk about sustainable rural tourism, the rural and the host community play a bigger role. Here the critical approach is the one which is in low impact, small in scale careful in development, and lower in negative impact towards the rural setup and the destination (Connor, 2013). These activities eventually result in higher local involvement, participation of the host communities in decision making, and sustainable development of the destination. Human resource and lack of skilled manpower is another major challenge which is faced by the rural resort owners, where the absence of training and lack of professionalism can be seen in the employees working at the rural resort.

3) Research Methodology:-

The current research is based on the research questions and purpose of the study, the research has been designed to acquire information from tourism stakeholders such as rural resort owners, rural communities, and tourists regarding their views on two major aspects of this research i.e. 'challenges related to the human resource development and the scope' and 'opportunities for the growth of sustainable

rural tourism development in the rural areas of Aurangabad'. The study has also tried to examine the views of the stakeholders about the contribution of skill development for the growth of rural youths, employment generation, and awareness about sustainability and the different sustainability practices followed at the rural resorts. The research sample included the following major groups for the current study.

3.1) Rural resort owners/Senior Managers:-

The main purpose of selecting the rural resort owners of Aurangabad was to understand the nature of their product, use of local theme for their resort, service type, quality, and the different facilities which are offered by them to the tourists. The study carried out a structured discussion with 12 rural employees and the senior managers who have been working with the rural farms over the last 7 years to understand their level of participation in the resort operations and the significance of achieving a higher level of guest satisfaction.

3.2) Local Residents/Rural communities:-

Local community members play a significant role in the growth and development of rural tourism in the rural areas of Aurangabad. Local villagers of Aurangabad are somehow directly or indirectly connected or dependent on rural tourism for employment or economic benefits. A separate interview guide was also prepared to understand the views of local people and their contribution to the overall development of sustainable rural tourism, the Sarpanch of the gram panchayat, and few villagers around 7 of them were interviewed.

3.3) Domestic/International tourists:-

Tourists and the guests who stay at the rural resorts or have availed of your services are the best assessors and they are the ones who can give authentic feedback about your product. To collect and understand their valuable feedback, experiences, and suggestions the researcher had interviewed around 5 domestic tourists from Aurangabad city and the Jalna city, as many of the tourists especially the ladies refused to participate.

3.4) Research approach:-

The parameters which were used for the assessments of the respondents focussed mainly on the motivation of the rural youths and the employees of the resorts, it also focussed on the nature and the content of the skill development program, as the training program which is offered by Pratham is in English and many rural youths face a huge problem in understanding and learning. However in order to understand the sustainability in detail, an interview guide was used with a set of around 11 questions focussing on the sustainability practices, eco-friendly behavior, eco-friendly products used at the resorts, and the level of

awareness and support they get from the tourist and the local community. The current study is mostly exploratory and endorses the qualitative research approach of primary research methodology (Malhotra, 2008 & Dworkin, 2012).

Looking at the required quality of information through the interview and discussion, a semi-structured open-ended questionnaire was the instrument for data collection. The narrated interview data has been recorded and interpreted based on the research objective. The researcher assured all the respondents who contributed for the study that their identity and personal informations will not be revealed and a higher level of confidentiality would be maintained.

3.5) Research Question:-

How human resource development and enhancement of skills of rural youths would contribute to sustainable rural tourism development in the rural areas of Aurangabad?

3.6) Objectives of the Study:-

- 1) *To examine and highlight the major human resource challenges & skill-related issues faced by the rural resorts in Aurangabad.*
- 2) *To analyze the different sustainability practices and eco-friendly measures followed at the rural resorts.*

4) Results & Discussion:-

The study presents the different strategies for rural tourism and sustainability practices, some of the major findings of the study suggest and recommend the necessary actions and the possibilities for the breakthrough.

- Many respondents from all the resorts agreed that currently, the tourism industry needs skilled and competent people. It was also found that many resorts did not have specific recruitment policies and training modules for their employees.
- Many employees at the operational level pointed out the poor salary structure, and the employees also felt that there should a structured career growth plan and guidance must be provided by the HR or owners of the resort.
- There should be a professional outlook and system in place to address some of the major issues such as lower salaries, long working hours, improper career path, poor training and development modules, and work-life balance issues etc.
- Many tourists and local community members highlighted that the local administration and resort owners must encourage local tourism development for supporting the small business at the rural level and promote the local culture, traditions, and heritage of Aurangabad.

- Many local tourists also felt that the use of digital media platforms and proper advertisement of rural products can make a bigger difference in the overall growth and development of rural tourism products.
- The rural community, local administration, and the resort owners must consider conservation and rural tourism management as the priority, and proper guided steps and mechanisms must be followed for sustainable planning and development.
- Many resorts are following the different sustainable practices such as rainwater harvesting, composite pit, plastic-free zone, solar energy, and aggressive plantation drive however few resorts are also using gobar gas plant and separate sewage treatment plant (STP plant).
- Major parts of Khultabad & Daultabad are very strong in their ecosystem, which are also rich in flora, fauna and has many lakes and ponds, which can be developed as alternative walking routes, even the bicycle tourism, and camping sites can be developed near the lake.
- There is also a need to develop a structured training manual for the resorts which will enable the resort owners and the senior managers to conduct a structured skill-based training at their resort.

5) Conclusion:-

The present study has attempted to highlight the significance of rural tourism for the growth of rural development through empowered rural youths and their contribution to the sustainable growth of the local area. No doubt rural tourism is developing as a new vertical of the tourism sector especially in the parts of Maharashtra where Aurangabad has seen a breakthrough over the last five to seven years. No doubt with the strong growth in the tourism sector, the present challenges related to the skilled human resources, and quality manpower especially at the assistant level and supervisor level remain a major roadblock for the tourism and hospitality industry. It is high time, where the local administration, resort owners of Aurangabad, PACE training center, or any other NGO training institutes must come forward to develop combined and effective measures for training the youths and creating awareness about the sustainability practices at the resort and village level. The resort owners can even think about newer additions, innovative products, sustainable and eco-friendly practices, eco-friendly products, and the constant support of the local rural community for the conservation of local heritage and the development of tourism in the rural areas of Aurangabad.

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Impact of COVID-19 on Government Revenue: A Study with Special Reference to GST in India

Shacheendran V, Swathy Krishna

Abstract

The COVID-19 pandemic affecting almost all the sectors of India, and have caused significant revenue loss to the economy. Lack of sufficient cash flows resulted in the close down of many MSMEs and the unemployment rate sharply increased from 9 per cent in March to 24 per cent in 2020. High level of compliance gap was witnessed during the initial stage of pandemic and records lowest level of GST performance. Tax analysis and forecasting of revenues are inevitable for developing economic and fiscal policies. The paper attempt to analyse the impact of COVID-19 pandemic on the GST collection in India, further the study used ARMA model to make a short-term forecast of revenue collection for the period 2021-22.

Keywords: ARMA model, COVID-19, Goods and Services Tax, Pandemic, Tax revenue

1. Introduction

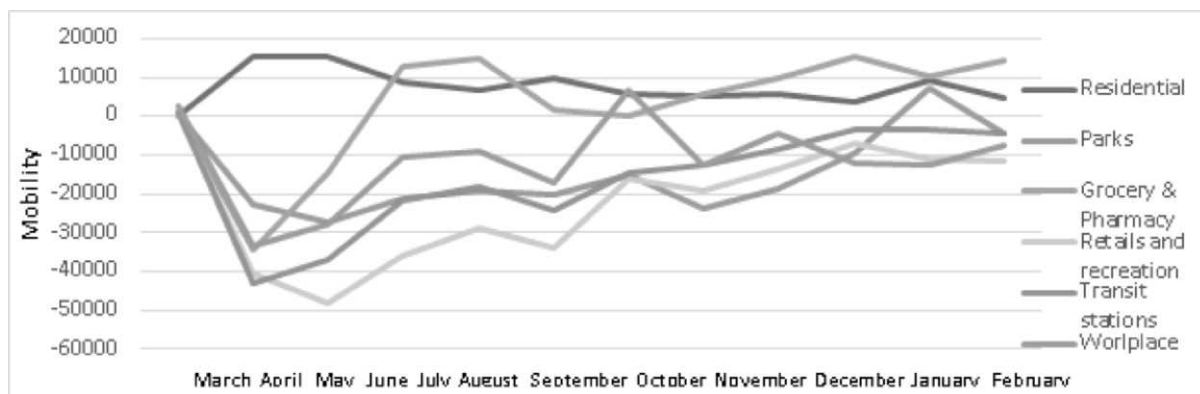
The COVID-19 pandemic had an unprecedented impact on the income source of millions, resulting in the contraction of the Gross Domestic Product (GDP) by 5.2 per cent in 2020 (World Bank, 2020). International Monetary Fund (IMF) forecasted a global decline in the growth rate by 4.4 per cent in 2020-21 and India's growth rate is projected to decline by 10.3 per cent (IMF, 2020). The pandemic causing economic disruption at both demand and supply chain affecting almost all the sectors, resulted in significant revenue loss to the economy. The stringent restrictive measures taken by the government to control COVID-19 outbreak resulted in the lowest level of GDP growth in Q3 of 2019-20. The economic distortion caused by pandemic led to significant revenue loss, the consumption-based tax collection was severely affected, GST collection was short by 3.13 per cent from the budget estimate in 2020 and is expected to contract the economy by 5 per cent in the fiscal 2021 (CRISIL, 2020).

The intensive control measures caused diverse macro-economic uncertainties in the economy, the google mobility report showed sharp decline in the physical mobility during Q1 in 2020-21. The Indian economic adversities were characterised by sharp fall in consumer demand, lower international trade and decline of revenue performance. The novel coronavirus has severely affected the human lives and have led many businesses in the verge of bankruptcies. The economies where indirect taxes contribute the major portion of the revenue sources were the worst effected (Jose et al., 2020). Such dilemma calls for urgent fiscal and economic reforms to bring the economy to the right track of progress. The real time economic data on international trade, tax collection and other economic factors could be very much useful to study the impact of pandemic on the economy and could help in making forecast of future economic tendencies. So, the study tried to analyse the impact of COVID-19 pandemic on the GST collection and tried to project the future revenue performance using ARMA (1,2) model. The government and other developmental agencies have become highly cautious and have been introducing various policy initiatives to stabilise the economy. Tax revenue assessment and revenue forecasting is the base for forming economic and fiscal policies. So, this research can potentially act as a base for further in-depth study and the findings of the study may have policy implication on the regulators.

2. Impact of COVID-19 Pandemic on Indian Economy

The global pandemic with subsequent restrictive measures involving social distancing, close down of public spaces and restriction on mobility have disrupted domestic and international trade resulting in significant revenue loss to the economy. The google community report on visits to six categories of places indicates the change in mobility of the people with the median value of the baseline period.

Figure1. Community Mobility Data



Source: Google Mobility Report of India (March 2020 to February 2021)

Note: The data set represent change from the baseline of 5 weeks from January 3, to February 2020.

The table shows visits to places during the time of COVID-19 pandemic in India. The data indicates a significant decline in the visits to places like parks, groceries, pharmacies, retail, recreation, transit change and work places during the initial months of COVID-19 outbreak. However, a rising trend was observed in case of mobility to residential places. The mobility trend towards retail and recreation spaces like restaurants, shopping centre and cinema halls have declined by -61 per cent on May 2021 compared to the baseline period. During May 2021, the mobility trend of visits to parks, public transport hubs and work place had a decline varying between -44 per cent to -50 per cent. And a decline of -23 per cent was reported across the visits to supermarket, food warehouse, farmers market and pharmacies. The absolute amount of loss incurred by the government is difficult to ascertain, but it is a known fact that the pandemic had a devastating impact on the economy. India's growth rate is projected to decline by 1.9 per cent in 2020-21 (IMF, 2020). Indian railway is being levying a reduced GST rate of 5 per cent on the passenger services and incurred an average revenue loss Rs 31.86 crore per month. The automobile industry was one among the most affected, and incurring a loss of Rs 2300 crore per day during the lock down period. Similarly Indian textile sector having a growth of 1.66 per cent in 2019, was severely affected by the pandemic (Panigrahi et al., 2020). India being the biggest source of qualified technical staffs and is the second largest receiver of Foreign Direct Investment (FDI) had a significant loss in foreign currency and incurred loss in the GST collection of Rs 4950 crore per month with respect to the domestic transaction.

Consumption of grocery, apparels and electronic products were affected by the global pandemic, causing a revenue loss of 300 crore on per day sales and subsequently leading to a loss of Rs 54 crore per day in the GST collection (IBEF,2020). Despite the

surge in the domestic demand for pharmaceutical products, India being a major exporter of pharmaceutical products was severely affected by the temporary close down of the airports and other transportation mode. Suitable economic revival package with policy reform can bring the economy through the path of recovery (Patnaik & Sengupta, 2020). Effective reforms measure could recover the economy with a stabilised GDP growth (CRISIL, 2020).

3. Review of Literature

Fiscal policy is a growth strategic tool to raise funds for financing the social or infrastructural development programmes. International experience shows tax administration along with efficient tax refund mechanism can improve tax compliance (Harrison & Krellove, 2005). The pandemic led economic distortion affecting the revenue collection of the government especially in case of developing countries. The real time data on tax performance and the impact of pandemic on the economy can have a significant policy implication on the regulators.

Mukherjee (2020) tried to forecast the State-level GST revenue performance for the period November 2020 to March 2021 under different scenarios using year-on-year growth rate, and found that tax revenue uncertainties have hastened by COVID-19 impact. The study projected a GST revenue fluctuation between Rs 10.3 lakh crore to Rs 11.6 lakh crore compared to the previous financial year with a GST collection of Rs 12.2 lakh crore and the GST revenue growth rate of the major states is expected to vary between -3.3 per cent to -12.3 per cent.

Vasanthakumar (2020) used univariate auto regressive integrated moving average (ARIMA) model to forecast the GST revenue trend over the period 2020-21 using the historical data starting from August 2017 to December 2019. The ARIMA model (2,1,0) found a positive revenue trend with highest revenue collection

in the month of April 2020, while the reverse result was obtained for the month of September 2020. But the pandemic situation is expected to bring down the GDP growth by 10 per cent in 2020-21 (IMF, 2020).

Patnaik & Sengupta (2020) focussed on studying the impact of COVID-19 under three scenarios for the period 2020-21, using a baseline scenario computed using Tax to GDP ratio for the period 2011-12 to 2019-20. The optimistic scenario where a fall in tax revenue by 10 per cent is expected to generate a fiscal deficit of 5.6 per cent and 8.1 per cent fiscal deficit in case of the pessimistic situation where the tax revenue is found to decline by 20 per cent. The baseline scenario is projected to have a decline in the gross tax revenue by -12 per cent and GST collection by -4.1 per cent. The pandemic caused the deepest recession since the great recession of 1990's. The global GDP came down by 2.5 per cent in 2019 and subsequently a sharp decline to -4.3 per cent by 2020 (UNCTAD, 2020). The pandemic situation makes it essential to identify the revenue impact. Relief measure developed based on in-depth analysis of revenue and sectoral impact can effectively reduce the COVID-19 impact (Steel & Phillips, 2020).

4. Objectives of the Study

1. To explore the impact of COVID-19 pandemic on GST revenue in India.
2. To forecast the GST revenue collection for the financial year 2021-22.

5. Hypothesis of the Study

H₀: The COVID-19 pandemic did not have a significant impact on the GST revenue in India.

H₁: The COVID-19 pandemic had a significant impact on the GST revenue in India.

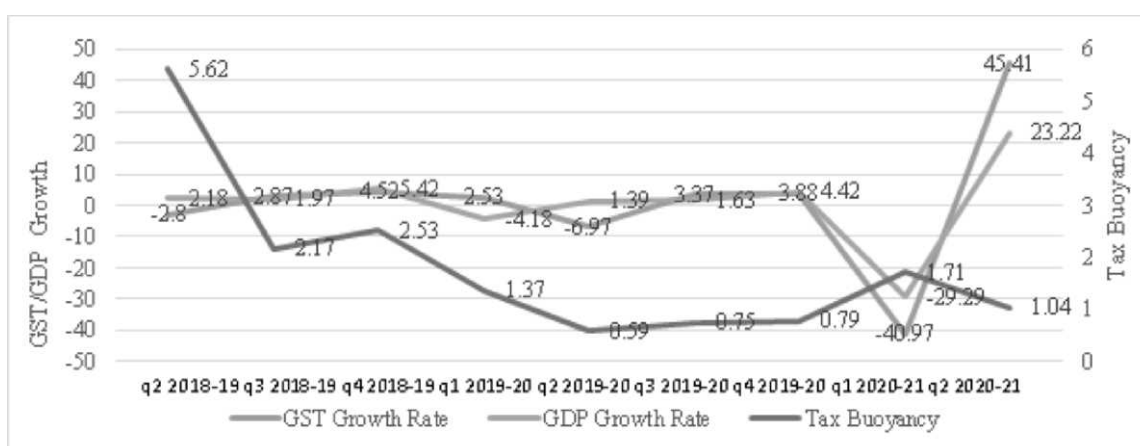
6. Data and Methodology

The present study tried to analyse the impact of COVID-19 pandemic on the GST collection in India. The time series data on GST collection have been sourced from the Press Release of Ministry of Finance and the Statistical Report of GSTN and the quarterly data on Gross Domestic Product (GDP) was obtained from the data published by Ministry of Statistics and Programme Implementation. The data pertaining to the period before and after the COVID -19 i.e., from August 2017 to March 2021 was used to forecast the GST collection. The study used the Econometric Software E- Views to perform Auto Regressive Moving Average (ARMA) model to make a short-term forecast of revenue collection for 2021-22.

7. GST Revenue Performance During Pandemic

Tax buoyancy is a key indicator for measuring administrative performance, as it indicates the responsiveness of change in the tax revenue to the change in the Gross Domestic Product (GDP). Improvement in public expenditure could improve economic activity leading to corresponding improvement in the growth rate (Paliwal et al., 2019).

Figure 2. Tax Buoyancy, Quarterly GDP and GST Growth Rate



Source: Computed

Notes: Tax Buoyancy (year-on-year) = Growth Rate in GST Collection / Growth Rate in GDP Gross Domestic Product (GDP) at Constant Price (2011-12)

The table shows a very low tax buoyancy during the last three quarters in 2019-20. In 2019-20 the GST collection falls during Q2 by -6 per cent and subsequently gained momentum in Q3 and Q4 by a growth rate of 3.37 per cent and 3.88 per cent respectively. The unprecedented impact of pandemic caused sharp decline in the GST collection by -40.96

per cent in Q1 of 2020-21, while a positive recovery was witnessed during Q2. But, buoyancy during Q1 and Q2 in 2020-21 showed a value greater than 1. The revenue collection over March and April, 2021 showed fastest recovery. OECD projected a GDP growth of 12.6 per cent in 2021-22 and released a revised rate of contraction of 7.4 per cent instead of 9.5

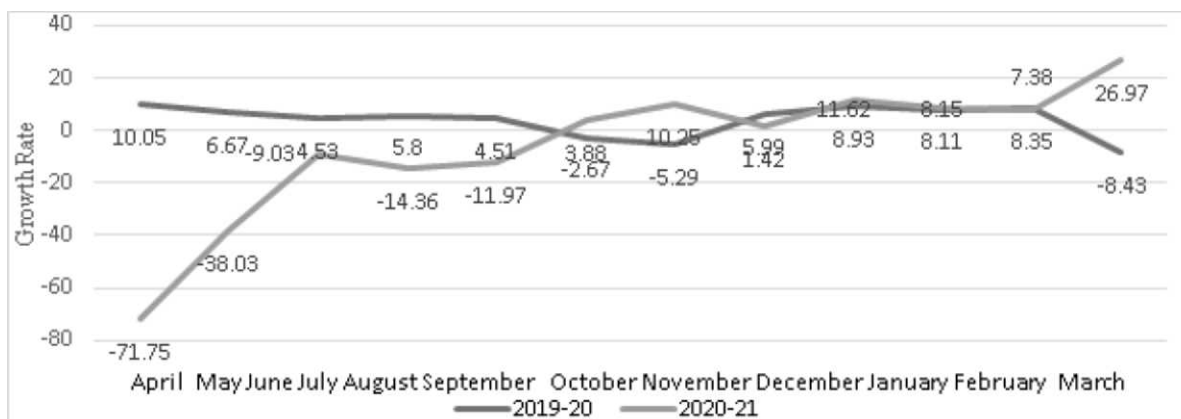
per cent in 2020-21, but the unprecedented mutation of the corona virus may hamper the economic recovery.

7.1 Monthly Growth Rate in GST Collection

The GST collection during 2020-21 were around 94,731 crores on average monthly basis, meanwhile in

2019-20 the average collection stood at 1,01,843 per month. In the month of April 2020 only 23 per cent of the taxpayers have filed GSTR-1 and 69 per cent files GSTR -3B, same rate of compliance behaviour was witnessed in May 2020.

Figure 3. GST Revenue Growth Rate



Source: Computed

The GST collection records for the lowest performance in April and May, 2020. The revenue performance of April 2020 was 71 per cent lower than the revenue collection of the same month in the previous year. Highest decline in growth rate of GST collection was observed during Q1 of 2020-21. The revenue performance during 2020-21 was highly fluctuating, showed a quarterly growth rate of -41 per

cent, -8 per cent, 8 per cent and 14 per cent respectively compared to 2019-20. The revenue performance has started improving over September 2020 with a sequential growth rate of 45 per cent in Q2 compared to Q1 of 2020-21. The economy witnessed highest revenue performance in the month of March 2021 with a growth rate on 26 per cent over the GST collection during the same month of the last year.

Table 1. Quarterly Growth Rate in GST Collection

GST Collection	2019-20				2020-21			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
CGST	13.57	12.42	14.92	-8.16	-40.06	-4.75	4.57	8.72
SGST	-11.69	-10.21	-11.93	-5.71	-45.52	-8.67	1.48	5.47
IGST Domestic	-3.98	-0.35	-4.44	-4.905	-40.90	-4.19	11.88	14.02
IGST Customs	0.06	7.74	17.25	10.72	-36.67	-12.95	13.84	33.11
Cess Domestic	-5.17	2.34	0.52	-1.88	-41.98	-8.26	4.46	5.35
Cess Customs	-19.19	1.94	5.83	-0.07	-39.35	-4.14	8.92	-8.39
Total GST	-6.69	-2.50	-2.97	-2.38	-41.02	-7.82	7.69	13.74

Source: Computed based on the press release of Ministry of Finance

Note: Year-on-year quarterly growth rat

The year-on-year growth rate of GST collection over Q1 and Q2 of 2020-21 showed sharp decline, but subsequent recovery could be observed in Q3 and Q4. The highest level of decline was observed in Q3 i.e., -41.02 per cent.

7.2 ARMA Modelling

The study used ARMA (2,1) to forecast the GST collection. While preparing this paper the GSTN has released data till 31st March 2021, so the data over the period August 2017 to March 2021 were used for projecting the revenue collection for 2021-2022. To

improve the model fitness two outliers were eliminated. GST collection was analysed using autoregressive model AR(p) and general moving average model MA(q). Trial and Error method was adopted to specify the p and q terms, thus, obtained ARMA (1,2) model type. The main requirement of performing an ARMA modelling is that the residuals should be normally distributed and should not exhibit autocorrelation.

To test the normality of the residuals the study used Jarque - Bera test.

Table 2. Testing of Normality

Mean	Median	Maximum	Minimum	Skewness	Kurtosis	Probability
99071	97417	123902	83780	0.69	3.25	0.18

Source: Computed

The p- value of Jarque – Bera normality test is 0.18 which is greater than 0.05, thus indicating the normality of the distribution.

The study used Breusch – Godfrey LM Test to measure the serial correlation in the residuals.

Table 3. Testing of Autocorrelation

F- statistics	2.54	Prob	0.09
Obs* R-squared	4.95	Prob Chi-square	0.08
Durbin-Watson Stat	2.07		

Source: Computed

The Breusch-Godfrey serial correlation LM test showed a p-value of 0.08, thus indicating there is no serial correlation among the residuals.

The stationarity of the data is another essential condition to perform ARMA model.

Table 4. Testing of Stationarity

	T- Statistics	Prob*
Augmented Dickey-Fuller test statistics	-3.99	0.017
Test critical values: 1% level	-4.21	
5% level	-3.53	
10% level	-3.19	

Source: Computed

Augmented Dickey-Fuller test was used to check the presence or absence of unit root. The p value lesser

than 0.05 indicates stationarity of data at the level itself.

Table 5. Testing Model Fit

Variable	Coefficient	Std. Error	T- Statistics	Prob
AR (1)	1.01	0.00	472.49	0.00
MA (2)	-0.88	0.09	-9.98	0.00
Fit Statistics				
R-squared	0.59		Schwarz criterion	20.39
Adjusted R-squared	0.58		Akaike info criterion	20.30

Source: Computed

Having identified an ARMA model type (1,2), and having a R- squared value 0.59, which comes under

the acceptable limit. The analysis found both AR and MA model significant with a p-value less than 0.05.

Table 6. GST Projection for the FY 2021-22 (in crores)

	2020-21			2021-22			
Month	Actual	Forecasted	Change	Month	Actual	Forecasted	Change
April	32172	101434.6	215.29	October	105155	101183.1	-3.78
May	62151	101296.8	62.98	November	104963	101176.7	-3.61
June	90917	101503.9	11.64	December	115174	101307.6	-12.04
July	87422	101298	15.87	January	119847	101854.3	-15.01
August	86449	101259.7	17.13	February	113143	101859.4	-9.97
September	95480	101288.1	6.08	March	123902	101702.5	-17.92
Total GST					11,36,775	1217164.7	7.07

Source: Computed

Note: Growth rate- year-on-year

The revenue collection during August 2017 to March 2021 was used to understand the revenue trend of FY 2021-22 and found a growth in the GST collection by 7 per cent compared to 2020-21, but was short by Rs 4953 crore compared to 2019-20. The projected year-on-year growth rates of GST collections shows a decline from October 2021 and records the lowest in the month of March 2022. The GST revenue during March 2020 shows 27 per cent year-on-year growth compared to a varying growth between September 2020 and February 2021. The average growth rate during Q3 of 2020-21 is 7.76 and the average year-on-year growth has risen to 14.16 per cent in Q4.

8. Discussion and Conclusion

Value Added Tax is considered to be a superior tax mechanism among the consumption or turnover taxation system, and tax efficiency depends on the taxable efforts and taxable capacity of the states (Coondoo et al., 2003). Like all the other economies, India economy too was affected by economic distortion caused by the COVID-19 pandemic, witnessing the lowest GST collection during April and May 2020. The ARMA (2,1) model found a growth in the GST collection by 7 per cent compared to the previous year 2020-21, but the GST collection during the forecasted period was found to be short by Rs 4953 crore compared to 2019-20. Further, the projected year-on-year growth rates of GST collections shows a decline from October 2021 and records the lowest collection in March 2022.

The economy witnessed high level of compliance gap during the initial stage of pandemic, in the month of April 2020 only 23 per cent of the taxpayers have filed GSTR 1 and 69 per cent filed GSTR 3B, same level of compliance behaviour was witnessed in May 2020. Temporary reduction of tax rate may cause fiscal pressure among the government (Guo and Shi, 2020). While, financial and fiscal policy measures could ease down the compliance burden of the tax payers. Extending the deadline for return filing, deferring tax and other related payments supplemented by a faster refund mechanism can improve tax compliance (OECD, 2020). Digital transformation is inevitable in this pandemic scenario, an efficient cost reduction technique could build up the business capabilities and enabling them to overcome the crisis (Anderson et al., 2021).

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Perspectives of the Prospects towards Online Teaching

Chirag Darji, Avdhesh Jha

Abstract

With a view to making the classroom teaching effective, the teachers have been adopting various classroom teaching pedagogies. The revolutionary and forceful approach of online teaching in covid-19 situation brought the mixed opinions of the stakeholders on the status of teaching. This motivated the researchers to carry out a survey study at international level. Thus, the research questions demanded the inquiry with respect to the perception towards online teaching, the best part of online teaching, satisfaction towards online teaching, problems of online teaching and the satisfaction with the progress through online teaching from the teachers, students and parents. This study concluded that (i) The major difference was observed on online teaching among all the stakeholders ie teachers, students, parents and other members of the society. (ii) Further, the stakeholders found the significance of online teaching. (iii) the teachers perceive more challenges with respect to the online teaching than as perceived by the parents and students on the same.

Keywords: Teacher, Education, TLP, Learning, Online Teaching, Online Learning

Introduction

In the 21st Century, people across the globe face unpredictable challenges in order to survive and sustain at dimension of the society ie politics, culture, economics, education and religion. Amongst all, education faced many ups and downs to instil the values, education and skills among the students in all the countries. UNO(2020, August) report shows that Education suffers at the highest level and affected to more than 11.6 billion students in more than 190 countries. This has happened because the human found the alternative classroom teaching option. The consequences of the same are hard to pen down in the short span and in the only alternative option. Looking at this from the 3 P's model i.e. Planning, Process and Product, people have in true sense a mixed opinions because the planning depends upon the need analysis, observation etc. which affect the process of teaching and the same reflects into result on the students' learning part. Paudel (2021) found a majority of the students, teachers and parents are beneficial in the online teaching. It may interpret, health is wealth, sound mind in a sound body. Therefore, people prioritized health and consider it as a best option to be replaced in regular curriculum and classroom teaching.

Almost all the educational institutions adopted various online teaching learning methodologies and to execute so various online teaching software and applications were used such as Zoom, Microsoft Team, Google Meet, Skype, Google classroom, Big Blue button etc. The sudden emergence of various online assisted teams, platforms and groups were formed like Vedantu, Byju's, Guru etc. Such groups put in all the highest efforts to provide the standard-quality teaching assistance. In fact, the respondents surprised looking at the extraordinary, smart and highly graphical facilities in teaching and learning. Such online teaching, affected each dimension of the education i.e. aims, curriculum, teaching-learning, student support and assessment and evaluation. It has forced stakeholders to rethink about the aims of education, the curriculum should be blended mode where some percentage of courses should be taught online, teaching learning must be creative, interactive, quality based, focuses the most on cognitive development of the students and the impartial, fast and innovative evaluation system.

Benefits of Online Teaching

Preferred by the Many Stakeholders: In the covid-19 situations, when the face to face physical classroom teaching was quite dangerous, the stakeholders opted the online mode of teaching and found the most effective and democratic for the all the types of learners i.e. highly attentive, average attentive and non-attentive students. Online interaction is a learning experience for both teachers and learners. (Paudel.P. 2021) Physical Presence not required which enables economy of time, money, energy. Flexibility in time, place etc. (Smedley 2010), (Paudel, P. 2021). (Arkorful, P. and Abaidoo,N. 2015) There is less distraction as students study alone. (Paudel, P. 2021). It can be best used in distance teaching: learning where from rural areas may also study. (Sun, Chen 2016)

Major Challenges of Online Teaching: Mukherjee, A., 2021 and

Sengupta studied in 2018 that 30% of our population lags on 3 R's i.e. Read, Writing and Arithmetic which is a basic literacy. Certain negative emotions are found among the young children on learning the contents and values such as boredom, stress, confusion, isolation etc. (Conrad, 2002); (Hara and Kling, 2003); (O'Regan, 2003); (Rovai & Wighting, 2005). The interviews with the experts and students presented *lack of skills, over rely on online teaching aids, threat to girl child, threat to female faculty, technology threats, technology issues, cyber bullying, isolation, lack of self-efficacy, procrastinate, oversaturation with information, lack of interaction, less exposure to practical's, lack of focus, attention, lack of control/monitoring, expertise knowledge, holistic approach, network issues, data cost, electricity, cost of smartphones, home environment, attention span, mischief by students, security, classroom environment, health issues, assessment, and doesn't caters the students* as the challenges faced during online teaching.

From various studies, only a student has given positive feedback about online learning but rest others studies show the learners found various psychological issues like anxiety, frustration. Isolation, fear, worries etc. on the online mode of classroom teaching than the traditional mode of classroom teaching. (Unger & Meiran, 2020). A student name Paul from Melrose and Bergeron's study (2007) states that in some respects, the students could interact with the teachers whom they found less comfortable in traditional classroom teaching. A student from Hara and Kling's (2000) stated that some teachers left certain ambiguous classroom instructions in the classroom teaching. A student from Howland and Moore's (2002) stated that the online teaching helps him to develop autonomous learning and made access various resources to solve the doubts and dilemmas. Having such results, it becomes necessary to study the satisfaction of the teachers, students and parents towards the online teaching.

Research Questions

With the advent of the online education and its pros and cons as discussed above following are the research questions which need to be verified from the teachers, students and parents. How do the teachers, students and parents perceive the online teaching? What are the perceptions of the stakeholder i.e. Parents, teachers and students towards the merits of online teaching? What are the perception of the stakeholders i.e. teachers, students and parents on the challenges of online teaching.

Objectives of the study

The following are the objectives for the study.

1. To study satisfaction of the stakeholders i.e. Teachers, Parents and Students
 - i. The online teaching as better mode of teaching
 - ii. Teaching/Learning online
 - iii. The progress (intellectual level) of the students through online teaching
2. To study the satisfaction of the parents i.e. teachers, students and parents on merits of online teaching.
3. To study the satisfaction of the parents i.e. teachers, students and parents on challenges of online teaching.

Hypothesis Following are the hypotheses of the study.

Ho₁ There will be no significant difference between the mean achievement score of the stakeholder i.e. parents, teachers and students on the online satisfaction inventory.

- i. Online teaching as better mode of teaching
- ii. Teaching/Learning online
- iii. The progress (intellectual level) of the students through online teaching

Ho₂ There will be no significant difference between in the mean achievement scores of students, teachers and parents on merits of the online satisfaction inventory.

Ho₃ There will be no significant difference between the mean scores of students, teachers and parents on the challenges of the online satisfaction inventory.

Research Design

Population of the study comprised of the stakeholders i.e. teachers, students and parents from the schools of Gujarat state. 57 teachers, 78 students and 54 parents were selected as the sample by the convenience sampling for the study. A questionnaire with closed ended questions was prepared and conducted on students, teachers and parents. Google form was used to conduct the survey. The data collected was grouped and graphs, percentage, mean, Kruskal Wallis test was used to conduct the analysis and interpretation of data.

Analysis and Interpretation of Data

Ho₁ There will be no significant difference between the mean achievement score of the students, teachers and parents towards the online teaching in the online teaching satisfaction inventory.

Table 1
Satisfaction on the online teaching inventory between the groups (in pairs)

Groups		Mean	Std. Deviation	Median	Minimum	Maximum
AVG Q1 Q3 Q5	Parent	2.9877	1.14002	3.0000	1.00	5.00
	Teacher	1.5906	0.40833	1.6667	0.67	2.33
	Student	2.9145	1.03814	3.0000	1.00	5.00
	Total	2.5362	1.11645	2.3333	0.67	5.00
Sig. of K Wallis		0.0000	Significantly Differing Pairs (Parents-Teacher and Teacher -Student)			

Based on the Kruskal Wallis test, from the table 1, it is vivid that test remains significant for the parent and teachers as well for the teachers and students in pairs. Thus the hypothesis that there will be no significant difference between the mean achievement score of the stakeholders i.e. students, teachers and parents towards the online teaching in the online teaching satisfaction inventory may be rejected. It implies that significant difference exists in the satisfaction of students, teachers and parents towards the online teaching in the online teaching satisfaction inventory. From the data in table 1 it is clear that the teacher and students as well the teachers and parents differ

significantly with respect to their satisfaction on the online teaching inventory. Moreover, it could be seen from the table 1 that the mean score of the satisfaction of the students and parents on the online teaching inventory is higher than that of the teachers which implies that the parents and students have much higher satisfaction than the teachers towards the online teaching.

Ho₂ There will be no significant difference between the mean achievement score of the stakeholders i.e. students, teachers and parents on merits of the online teaching in the online teaching satisfaction inventory.

Table 2
Satisfaction on the merits of the online teaching inventory between the groups (in pairs)

Groups		Mean	Std. Deviation	Median	Minimum	Maximum
Sum Merits	Parent	3.6111	2.89708	3.0000	1.00	14.00
	Teacher	4.6140	3.28283	4.0000	0.00	13.00
	Student	4.0769	2.89545	3.0000	1.00	14.00
	Total	4.1058	3.02638	4.0000	0.00	14.00
Sig. of K Wallis		0.1800	Not Significant			

Based on the Kruskal Wallis test, from the table 2, it is vivid that test remains insignificant for the parents, teachers and students in pairs. Thus the hypothesis that there will be no significant difference between the mean achievement scores of the stakeholders i.e. teachers and parents on the merits of the online teaching in the online teaching satisfaction inventory may not be rejected. It implies that difference amongst the students, teachers and parents is negligible enough to be considered for the merits of the online teaching in

the online teaching satisfaction inventory. Thus it could be said that with respect to the merits of the online teaching, the students, teachers and parents doesn't differ significantly.

Ho₃ There will be no significant difference between the mean achievements scores of the stakeholders i.e. students, teachers and parents on the challenges of the online teaching in the online teaching satisfaction inventory.

Table 3
Satisfaction on the challenges of the online teaching inventory between the groups (in pairs)

Groups		Mean	Std. Deviation	Median	Minimum	Maximum
Sum Challenges	Parent	6.5000	5.52780	5.0000	1.00	26.00
	Teacher	24.1404	15.20037	22.0000	3.00	65.00
	Student	7.5000	5.12126	7.0000	0.00	22.00
	Total	12.2328	12.24349	8.0000	0.00	65.00
Sig. of K Wallis		0.0000	Significantly Differing Pairs (Parents-Teacher and Teacher -Student)			

Based on the Kruskal Wallis test, from the table 3, it is vivid that test remains significant for the parent and teachers as well for the teachers and students in pairs. Thus, the hypothesis that there will be no significant difference between the mean achievement scores of the stakeholders i.e. students, teachers and parents on challenges of the online teaching in the online teaching satisfaction inventory may be rejected. It implies that difference exists between the students, teachers and parents for the challenges of the online teaching in the online teaching satisfaction inventory. Moreover, it could be seen from the table 3 that the mean score of the challenges of online teaching inventory of the teachers is much higher than that of the students and parents which implies that the teachers perceive more challenges with respect to the online teaching than as perceived by the parents and students.

Results and Discussion

1. Satisfaction of teacher, students and parents towards online teaching

There was a significant difference exist between the mean scores of the stakeholders i.e. students, teachers and parents towards online teaching and that the satisfaction of the students and parents towards the online teaching is higher than that of the teachers. There could be many reasons like Parents and students are satisfied in terms of safety during Pandemic, family member's concentration, learning flexibility and family members personal support whereas the teachers couldn't observe them and assess the actualization of original learning on students part. Further, the purpose of holistic development of students couldn't be fulfilled in online teaching which may be less prioritise by the parents and students of contemporary society.

2. Merits of Online teaching

Significant difference does not exist between the mean achievement scores of the stakeholders i.e. parents, students and teachers towards the merits of online teaching. The opinions of the stakeholders are negligible on the merits of the online teaching. It can be interpreted that the online teaching has various benefits for parents, students and teachers such as Learning from anywhere at any time, saving on travelling, fuel and time. Further, the teaching learning process becomes rich in terms of supplementary resources, experts talks, videos, articles and access of global resources.

3. Challenges of Online Teaching

Difference exists between the students, teachers and parents towards challenges of the online teaching. Teachers' perception towards the challenges of online teaching are higher than that of the students and

parents which implies that the teachers perceive more challenges with respect to the online teaching than as perceived by the parents and students on the same. It can be interpreted from the result that the parents and students have less challenge in learning than the teachers while teaching in online platform. In spite sparing the huge time, energy and resources, the outcome is not predictable on the learners' part. The teachers face the major challenges like ICT skills of the students & parents, lack of projects based on field work experiences, over dependency on online teaching learning resources, lack of emotional touch, Cyber bullying, take re-take of the video recording, Oversaturation with information, lack of concentration, internet facility, preparing you tube channels and quality and availability of resources, mischief by students, health issues and value inculcation. So, it can be concluded from the above result that the teachers face more challenges in online teaching than face to face teaching.

Conclusion

This study concluded that difference exists in the satisfaction of the stakeholders i.e. parents, students and teachers on the online teaching inventory and that the satisfaction of the students and parents towards the online teaching is higher than that of the teachers. However, difference in the perception among the stakeholders towards the merits of online teaching is not observed but with respect to various challenges of online mode of teaching, the students, teachers and parents differ and that the teachers perception towards the challenges is much higher than that of the students and parents which implies that the teachers face more challenges with respect to the online teaching than as perceived by the parents and students on the same. However much research need to be conducted to know views about Teachers, Parents, Management Members and Students from their view point across various different geographical areas, among different age group students for the effective implementation.

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Customer Value Proposition Pay-Off in Business Model Innovation: An Introspection on “Spotify”- The Game Changer of Digital Music Industry

Shivaji Banerjee, Mohua Banerjee, Tripshita Saha

ABSTRACT

“Future of music is access, not ownership.” -Daniel Ek, Co-founder and CEO, Spotify

History of mankind across world stands to be the testimony for revolutions emerging out of anomalous, unprecedented notions. The concerned research effort intends to feature a narrative on one such start-up initiative which metamorphosed the audio business globally. Spotify, the Sweden based company launched in 2006, marched forward to race along the existing key players of the market only to emerge out as single corporate entity with an audio dominance by taking over the digital music industry titans. Triumph card for the start-up was their extraordinary business model itself, which swiped off other players by providing creative content freedom to artists and protecting authenticity for listeners, production houses. This paper unfolds the journey of Spotify since its cradle days till the present date and further provides a detailed insight on their unique freemium and premium service packages, music eco-system of peer assisted and personalized music sharing, developed to support their business focus of cult creation by supreme quality digital music offering to the listeners that is piracy-free and directly sourced from the original creators leading to an exceptional Business Model Innovation. Relevance of studying Spotify payoff, which acted as a pioneer to the permanent change in global audio business lies in acknowledging the fact that market always corrects itself and foremost, a strong business conviction with an uncompromising belief can actualise a miniature player bringing down the industry mammoths. The research lies in putting forward an observation towards recognizing the immense importance of Customer Value Proposition (CVP) for any and every product/service offerings.

Keywords: Business Model Innovation; Supreme Quality Digital Music; Piracy-free Music; Freemium & Premium Service Packages; Peer Assisted & Personalized Music Sharing; Customer Value Proposition (CVP).

1. Introduction

The immense importance of a Business Model was neglected for quite a long period, painted with a rosy picture of delusional profit earning promises which initially succeeded in gluing the investor subconscious. As the myth started burning out, the concept of having a business model also was becoming redundant in entrepreneur mind-sets. Strategies, built only to gain an upper hand through a competitive edge was being replaced with models. But, sooner the practical experiences of global leaders from diverse business fields gave clarity to misconceptions developed and emphasised in drawing a line somewhere to stop overlapping the concepts together which would prevent corporate entities from ambiguous business idea generation and execution difficulties. A Business Model is a combination of two factors, i.e. the story telling of the entire business system operations and the calculative financial facts (**Harvard Business Review, 2019**). There are ample success stories and divestment drama witnessed in corporate world justifying the relevance of inventing or reinventing an effective business model. What remains unnoticed still is need for a situational analysis for all the components of any successful model. As a result, business houses which attempted in designing, developing a model with very little understanding on value creation for customers, have failed abruptly. In order to capitalize a business opportunity it is absolutely necessary to identify the needs and gaps in existing product offerings in the market and accordingly try to come out with an offering that serves the potential and augmented demand, only then a business is able to generate value in the customer cerebrals.

1.1 The Cold War

Any model should be distinctive in their business execution procedures along with its revenue generation capacity, sources and the failure contingencies must be considered too. This not only prepares a company for the competitive edge required, but also allows customers a clarity on the particular business idea uniqueness. The digital music industry before 2006, was majorly dominated by Apple (iTunes) and (iPods), their model was dependent upon per downloaded price of music which was 99 cents then, according to the variant of iPod and its storage capacity. The major loophole of the Steve Jobs product was, though iTunes was accessible to all Apple users and had Windows support too but, with a rise in affordable and mass production of android phones by Google, the much high-built wall for sophisticated customer category began to get compromised with cheap technological competency, reasonable pricing and free downloaded music in Mp3 format, music sharing through Bluetooth accessibility and other portable devices (**The Spotify Play, Diversion Books, 2021**). This was an alarming situation for Apple as it was facing threats from both iPhones and iPods, especially with iTunes where it was an unbeatable player with an audio security supporting original piracy free music, but the access was limited to only Apple community. The digital audio business was then left unprotected to authenticity of music, unalarmed to havoc infiltration of pirated music resulting to a culture of audio availability with zero heed to its creators and also the quality of the creative contents. This entire gloomy scenario occurred as a boon to the Swedish Start-up initiative, Spotify, which was successful in reversing fate of global audio business because of

their phenomenal business model, developed to address and resolve all existing gaps in the industry.

1.2 Objectives

This study will aim at:

- ❖ *Primarily*, analysing the Spotify business model.
- ❖ *In addition to it*, apprehending the importance of business value creation for any successful innovation.
- ❖ *Last but not least*, understanding the implication of customer value proposition in their model as a stop-gap solution for the audio business in totality.

2. Materials and Methods

The concerned research effort is descriptive and explorative in nature supported with elaborate and extensive information gathered from secondary sources as per the need and availability of data. A systematic literature review based on relevant bibliographic references along grey literature of previously published works and documents has been conducted for achieving the above mentioned objectives. The financial statements, prospectus and annual reports in reference to the number statistics for preceding three consecutive years of the company have been thoroughly studied for a deeper insight. Qualitative content based resources from electronic searches and review articles, journals from websites has been utilised for novelty of the research.

3. The Curtain Raiser

“The value of a company is the sum of the problems you solve.” -Daniel Ek

The idea that intrigued the subscribers to Spotify was its on-demand music streaming service. This feature

allows listeners to browse, enjoy licensed music tracks through national/international/regional albums, artists and users are also able to create, share their playlists. Initially when the company launched, it came out with Windows/PC version and thereafter with a mass mobile application version supported by most of the Android smartphones. Presently, the internet radio service of Spotify comprising over 35 million songs is accessible to Linux computers, Mac OS, PlayStation, Xbox one home gaming consoles etc. The whole concept lead into building a music eco-system with content generation, moderation and creation opportunity for artists and listeners both, which helped in developing a sense of belongingness through peer-to-peer music sharing. As shown in the canvas below, it can be understood that Spotify concentrated in connecting music lovers by utilising lucrative customer data resources, again, an unlikely move for a start-up to be this much customer-centric at core. The [Figure 1] shows that the company was burdened with four different regular running costs, balancing out with just two revenue sources, that too either one of them being discretionary. What is to be noticed here that, in spite of these practical shortcomings, the novice player, which should have been growth oriented, diverted their entire focus on creating and adding value to their business propositions by rooting themselves in hearing and fulfilling customer demands. The major outcome from it was the company exceeded by far in its cost-benefit ratio building, irrespective of restricted revenue sources, as they succeeded in long-term customer retention through their service quality. All of it shook the audio business as these were the uncharted waters till now and for a new entrant in the industry serving every unresolved gaps with such an impact became, the talk of the town.



[Image Source: <https://debdey.com/portfolio/identifying-the-spotify-business-model-user-research/>]

4. The Game Begins

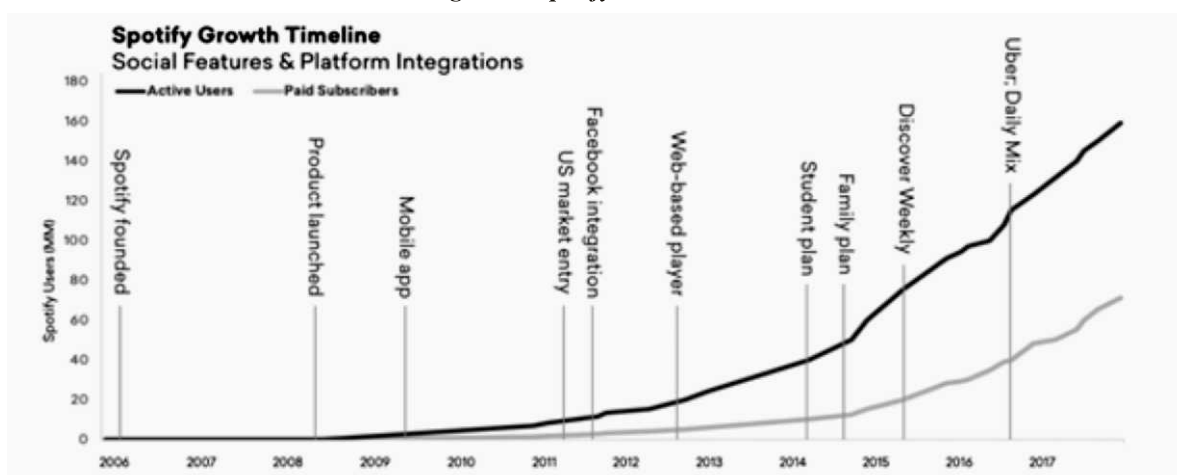
The graph [Figure 2] displayed below helps us to view the journey of Spotify, since it was founded in 2006 till 2017, where along with contributing to their basic

business idea of live music streaming, they narrowed down for product specifications by releasing premium packages for subscribers through customer segmentation such as student, weekly, daily and

family plans as needed. The darker upward rising U-shaped curve shows the increasing number of Active Users for the above mentioned time period. Also, it is observed that, number of paid subscribers are showing a rising trend, but still the company awaits a picture of exceeded paid subscribers over its monthly active users (MAUs). What worth noticing was, that Spotify kept themselves glued to free live music streaming for everyone, even after registering the fact that users are trying out their **Premium** versions, they did not stop providing charge-free music to all users. This proved to be a very intelligent decision and rightly served its purpose. The **Freemium** version kept pooling in

listeners which increased the number of active users and simultaneously the company gained an advantage on potential paid subscribers who could avail their premium packages in future. To top it all, the various options given to the users such as, **trying out their premium version for the first month totally complimentary, ad-free music, offline music and the open-ended subscription facility** that allowed subscribers a choice to not avail for paid-up version, once the plan expires, be it any (monthly, weekly, daily, family or student). They can still continue enjoying high quality original music free on Spotify.

Figure 2: Spotify Growth Timeline

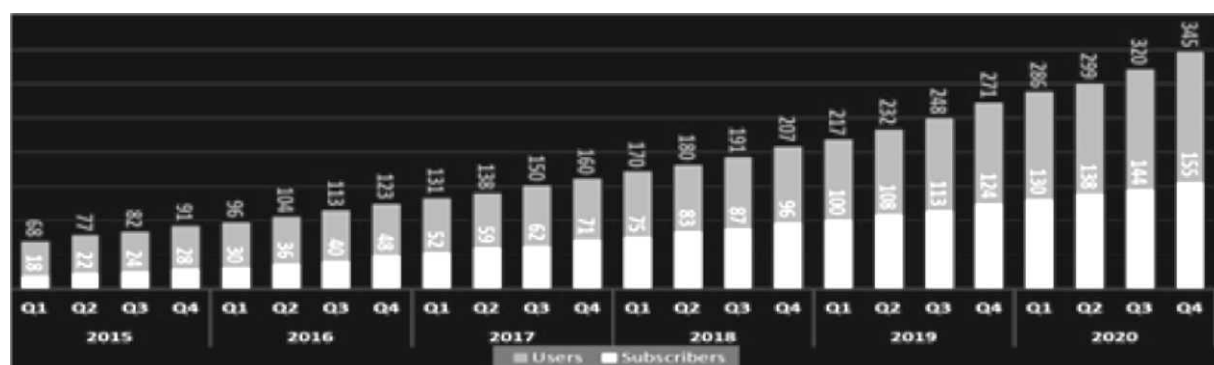


[Image Source: Goodwater Capital]

[Figure 3] shows Spotify performance in all 4 financial quarters over past 5 years, starting from 2015-2020. The historical context can be referred to find Spotify subscriber percentage over monthly active users in Q4 2015, which stood at 31%, respectively followed by a positive margin of 39% in Q4 of 2016 and that of 46%, in the Q4 of 2018. According to company's financial disclosures for the fourth quarter of 2020, there were 345 million MAUs of Spotify, out of which 155 million were paid-up subscribers to their premium packages.

This shows a direct jump, in comparison with 2020 third quarter figures of 320 million MAUs and 134 million premium subscribers of Spotify. If we calculate by year-on-year basis, there is an increase in number of users by 74 million, which is around 27%; and rise by 31 million in premium subscriber category, nearing to a figure of 25% [Figure 3]. The illustration above is self-explanatory to ideate that Spotify by then had started spinning the audio business globally.

Figure 3: Spotify Users and Subscribers (In Millions)



[Image Source: Spotify Financials]

5. The Knock-Out

The discussion so far, helps us to build an idea regarding effective market expansion and penetration strategy of Spotify, which already had given a sweet taste of success to the company. Further, to get a better grip on the situation it is important to analyse about the existing close rivals of Spotify and also being a new entrant in the industry, how well is it coping in terms of enhancing their customer base through capture, maintenance and growth for a solid market share built in comparison with experienced players. The major contenders of Spotify globally are *Apple Music*, *Amazon Music*, *YouTube Music* and *Tencent Apps*. When observed the 2020 market share statistics, Spotify is found making noise in the industry by altering user perceptions, making them switch from other online music streaming platforms to theirs. Below, [Figure 4] in the last financial year, the company is seen to acquire a market share of 33%

which is an approximate aggregate figure of its closest rivals, i.e. Apple and Amazon Music. This generates an idea regarding Spotify's consistent rise in business volume and growth rate despite a dearth of experience, especially if compared with Apple music which has high-built product sophistication walls and targeted customer niche because of their technical competencies. Spotify entered the hyper competitive Indian market in 2019 February with a sceptical mind, as there were already 15 existing players, many of which were well navigated across the Indian music industry. Simultaneously, Spotify was facing license procuring difficulties from local record labels such as *T-Series*, *Shemaroo* and *Saregama*. The key domestic influencers then being *JioSaavn*, having 10 times more MAUs than Spotify when it stepped in, *Wynk Music* & *Gaana* too had a substantial grip over market share.

Figure 4: Spotify Vs Global Competitors

MUSIC STREAMING PLATFORMS	2020 MARKET SHARE GROWTH [IN %]
Spotify	33
Apple Music	20
Amazon Music	15
Tencent Apps	11
YouTube Music	5
Others	16

[Image Source: Spotify Financials]

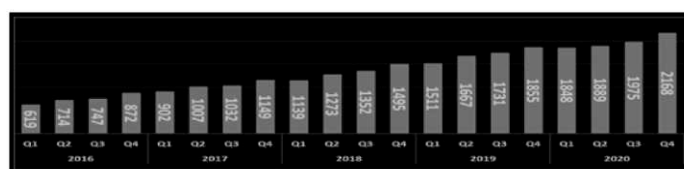
But sooner, Spotify did overtake Gaana with 42.1 million MAU in the 3rd quarter of 2020 and was approaching towards doing the same for subscribers to JioSaavn and Wynk music. There were international players such as *Apple*, *Amazon Music* and *YouTube Music* operating in full swing, but they lacked a focus on localisation which helped Spotify to eclipse them with quite an ease. Despite the heavy competition, Spotify cemented itself in India, within 1.5 years timeframe with a noticeable growth in their MAUs by around 27%, an aggregate sum of 345 million by the end of Q3 2020, only because they were single-minded in adding customer value to the Indian perception through understanding local music preferences and interests.

6. The Number Count

To throw light upon their financial figures, along with increasing MAUs and extensive growth in global

music industry market share, Spotify can be observed in steadily improving their profit earning capacity since the first quarter of 2016 till the last quarter of 2020 [Figure 5]. The graph below portrays the company's revenue figures globally, as classified quarter wise. The revenues are found to be shooting upwards from quarter to quarter of the same year, for instance, the revenue of Q1 to Q4 of 2020 shows rise by almost 15%. Similarly, year-on-year comparison from 2019 to 2020 also gives a contributing margin by 16% approx. Now, if compared between the 4th quarters of 2018 and 2020, Spotify is noticed to have increased their profit margin by a fat difference of exact 45%, which is an unthinkable revenue collection for a start-up, amidst the presence of veteran players. Spotify as evidenced by now has thoroughly penetrated the market and is steering the fate of audio business worldwide.

Figure 5: Spotify Revenue Worldwide in Quarters [In EUR Millions]



[Image Source: Spotify Financials]

7. The Wall of Fame

Our focus company, is both classic and contemporary example of a corporate entity that systemised the idea of encashing its business model since its formative days. Spotify broadly has two model versions i.e. *Freemium* and *Premium*. The former one comes free with the specifications mentioned in [Table 1, Spotify Support] while the latter one has nominal charges with loads of benefits. Presently Spotify has extended their Premium model version with variety of subscription plans, such as *Premium Individuals; Premium Student; Premium Duo; Premium Family and Partner Premium Plans*. Each of them as understood has been designed to fit the requirement of

the user. The subscription charges differ across countries, so does the discount and trial period offers. But the basic specifications as shown below, remains same for all the variants of Premium Model. The model versions explained below helps us to understand that though Premium subscriptions are a prime revenue source for the company, yet if we compare between the benefits in the two, apart from advertisements in the Freemium version, Spotify is providing all their customers almost an identical service, this gesture is enough to apprehend their business approach of value addition to customers over profit earning.

Table 1: Spotify Plans

SPECIFICATIONS	FREEMIUM	PREMIUM
Over 50 Million Songs	Yes	Yes
Download Music	No, only can add to Liked Songs	Yes
Music Quality	Moderate to High	Highest
Ad-Free Music	No	Uninterrupted
Shuffle Play	Only for selected playlists	Yes
Podcasts & AudioBooks	Available	Available
Download Podcasts	Yes	Yes
Travel Abroad with Music	Yes, but only for up to 14 days	Yes

In the present context, it is worthy noticing that for a start-up with a gross life of 15 years, the number of new features added as well as different services introduced without compromising on their core service motive is phenomenal, as each of the features

such as *Private Listening, Sharing Playlists, Following Artists and Friends* and the new services like *Podcasts, Spotify Greenroom, Spotify Livestream shows*, have been highly accepted and popularised in no time.

Table 2: Spotify Service Offerings in Brief

FEATURES	BRIEF DESCRIPTION
<i>Spotify Profile</i>	Shows user name, profile picture, all their public playlists, recently played artists, who they follow and who are they followed by.
<i>Music Library</i>	Here, users can save anything – songs, albums, artists, and playlists for quick reference by just liking them.
<i>Create and Share your Playlist</i>	Allows user to create their own playlist, as per their taste in music and share it amongst their circle.
<i>Play Que and Shuffle Play</i>	Allow users to see and arrange the next song to be played, whereas in shuffle play one can change order, jump and mix play across tracks, albums, which is ideal for long playlists. Though the latter is restricted to Premium users only.
<i>View Listening History</i>	User here can find songs which they have recently listened to and can repeat it on loops.
<i>View Song Lyrics</i>	Suggested for music lovers who enjoy all genres of music, irrespective of language/dialect/apprehensive barriers, mostly for international, regional or folk songs.
<i>Follow Artists and Friends</i>	By following artists, user is ensured of not missing out on any new releases by their favourite artists and helps Spotify to suggest better recommendations. Similarly, by following friends one can see their current favourite tracks.

<i>Private Listening</i>	Here users can control their profile visibility by turning it on and others won't know about what he/she have been listening to, without disturbing their music recommendations. E.g.- Discover Weekly
<i>Group Sessions</i>	Exclusive for Premium subscribers where they can invite friends via link, they can join and enjoy the session in real time. Also everyone invited can control the tracks to be played.
<i>Podcasts and Audio Books</i>	A recent feature added by Spotify where users can listen to newly added seasons/ episodes of their favourite shows, audio files.
<i>Spotify Radio</i>	Here, one can enjoy any collection of songs by saving the artist, album or song, it automatically updates itself.
<i>Spotify Greenroom</i>	A new social media app where users can host and participate into live chat sessions with their favourite artists or fans of similar music interest.
<i>Spotify Stations</i>	A simplified version of Spotify, specially designed for mobiles which can be used along the main app as well as individually. It helps users to unlock better stations by frequent listening.
<i>Spotify Livestream Shows</i>	Users here can buy tickets of virtual concerts on Spotify of their favourite artists, these are generally pre-recorded and streamed live, only the paid listeners are allowed to join the concert through a link shared to them.

The [Table 2, Spotify Support] above, gives a summarised view of the ample features introduced by Spotify which has now become a fully grown community based music sharing platform, by connecting peer to peer, artists to fans and all music

lovers. This table is a documentation on the baby steps taken by Spotify in all these years towards maximising customer proposition and providing them with a musical delight package that no other company in the digital music industry could think of.

8. The Mileage Morale

Figure 6: Spotify CVP Statement



[Image Source: Spotify]

“Put your consumers in focus, and listen to what they're actually saying, not what they tell you.”
–Daniel Ek

An ambitious remark from the CEO to practice what is preached, builds enough inquisitiveness to reason behind Spotify pomp show. The factor which added life to the years of journey so far for Spotify, was their excellent use of Customer Value Proposition (CVP). [Harvard Business Review 2016] CVP is a statement or promise by the company to its customers which clearly identifies the value, operation mode and distinguishable idea of their business. A value proposition should be convincing enough to persuade

customers regarding the business capability. The image shown [Figure 6] is the CVP statement of Spotify, which very aptly is stood by them. The start-up sticks to their promise of availing on-the-go music to everyone, delivering service value as claimed. Presently, Spotify operations are based on five value proposition pillars.

➤ **Accessibility** - To claim to provide music for everyone and everywhere was a break through idea itself, as it directly challenged the much protected high walls of Apple along other experienced contemporaries.

- **Customization** – Designing a recreational service package not only as per customer preferences but also for a global reach Spotify had to focus on local taste and language limitations as per geographical diversity.
- **Pricing** – Spotify came up with an exclusive affordable price range of different duration based subscription plans (*Premium*) for the masses of all age, occupation, income level, without compromising on their generic offering (*Freemium*).
- **Performance** – By introducing the above Spotify had already promised too much which required market testing, in terms of application supportability on smartphones and desktops, music accessibility, quality of music, database of global music of all genres etc., where they came out with flying colours.
- **Brand Status** – Positioning a brand in the customer perception needs time for market penetration and product awareness, music lovers started preferring and referring Spotify in a period as short as 2 years from entry (seen in Indian context). Goes without saying Spotify is a word of mouth brand now.

9. Conclusion

"We led with our conviction rather than rational, because rational said it was impossible." - Daniel Ek.

There are lot of perspectives on Spotify that still remains untouched due to restrictive research focus, but the laboured deliberation comforts us with an outlook of placing customer insistence at the nucleus of any market offering, as financial facts present the outcome and position, whereas to tap the pulse of a market, admitting market impediments and making effort towards bridging those gaps builds the foundation for a rewarding business plan. What could be a fitter case than this for perceiving the virtue of tenacious conviction in business accomplishment by an assemblage which got its wings way before, they had learn to walk.

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CSR Expenditure Pattern of Indian Aerospace and Defense Companies- An Analytical Paradigm

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Abstract

This study intends to examine the pattern of CSR expenditure in Aerospace and Defense public sector companies. The sample of four companies for which the secondary data for six years has been taken into consideration and the relevant hypotheses have been tested through Kruskal Wallis test. Though, the companies adhere to the inclusive pattern of expenditure, it has been confining their funds towards one or two areas leading to low contemplation or no weightage to other parameters. Also, there has been no significant difference in pattern of the CSR expenditure of the companies over the years and amongst each other.

Keywords: Corporate Social Responsibility, Companies Act, 2013, Section 135, Schedule VII, Triple Bottom Line, Companies Amendment Act, 2019, CSR Expenditure Pattern, Niti Aayog.

Introduction

Business being an integral element of the society, is liable to its people for its mere existence. In contemporary times, the organizations can't get rid of their social obligations as it impacts the society economically, socially and environmentally. The companies are required to surrender a certain fraction of their profits for the development of society in order to survive and sustain growth in the market. The notion of corporate social responsibility is being acknowledged by this viewpoint. Managers have begun to realize that they owe responsibility to society as they owe to business enterprises. Besides, the Public companies, being enterprises of the social importance, have been expected to act in a socially responsible manner and to benefit the society in their best interests. In India, for building a better future, the Indian government has brought into effect new CSR guidelines through Section 135 of Companies Act, 2013 requiring companies to spend 2% of their average net profit of last three years' towards various CSR activities. Even, Schedule VII gives some broad areas where CSR funds of the companies can be deployed to discharge their social obligations towards various sections of the society. However, the continuous amendments have been made in the section concerning CSR.

This paper intends to examine the pattern of CSR expenditure of the Aerospace and Defense Public companies after an implementation of the provisions of Section 135 of Companies Act, 2013.

Review of Literature

CSR helps in enhancing the image of companies and general public support companies as they find CSR as their source of development. Furthermore, it has been spelled out that guidelines of Section 135 of Companies Act, 2013 has also resulted in the expansion of CSR initiatives (Jaysawal and Saha, 2015). Most of the companies contribute towards environmental sustainability, disaster management, healthcare, women empowerment, education but the disclosures are prevalent only for the safety and healthcare (Pahuja and Juneja, 2016). However, even after the compulsion of CSR contribution, many companies have been failed to contribute minimum 2% of last three years' average profits towards CSR (Sai, 2017). Most of the companies did not comply with the minimum limit of 2% in an initial year while out of them many companies pushed their limits and have increased their contribution towards CSR in subsequent years (Kumar and Dhanda, 2017). It has been observed that manufacturing companies tends to contribute more towards CSR as compared to service companies and that too mainly towards environmental elements (Krishnan, 2018). The companies have enhanced their contribution while transforming from voluntary to mandatory period, however the companies contributing more in voluntary period have reduced their contribution to reach upto minimum limit of contribution (Kavitha, 2018). The CSR contribution has been more inclined towards healthcare and sanitation followed by rural development and education where the area like environmental sustainability never be given due consideration (Banerjee and Pulikkamath, 2019). There has been a high disparity in expenditure in different zones due to ambiguously defined guidelines and geo-political aspects (Khan and Bandopadhyay, 2019). The activities towards the corporate social responsibility by the firms are likely to benefit them at greatest when they make the local areas as the focal point of their contribution (Newman et al., 2020). The acceptance of CSR by the

businesses for their core objective of sustainability has been a significant driving force for the growth of CSR, thus depicting its buoyant potential and future (Carroll, 2021).

Research Gap

The review of the existing literature illustrates that till date, CSR has been talked about qualitatively and if had been quantitatively, the aggregate aspect has been given consideration. The parameters of CSR towards which the companies have been working upon have not been discussed in past researches in quantified terms. It has been acquainted that CSR contribution has been made to various parameters, but the question remains at what extent, whether including every area or confining towards one or two areas. Thus, in order to fill in a research gap, the various dimensions of CSR expenditure have been studied deeply in accordance with the Schedule VII of Companies Act, 2013.

Research Methodology

The rationale behind the study is to know the extent of CSR activities of Aerospace and Defense Companies in alignment with Schedule VII of Companies Act, 2013 for which the data have been analyzed and presented quantitatively through percentages, tables, graphs etc. and the observations have been explained descriptively on the basis of the trends and the pattern detected in each company. Moreover, to compare whether Aerospace and Defense companies are consistent with each other in terms of CSR expenditure towards different areas. For the said purpose, hypotheses of intra-company, inter-company and overall comparison have been framed which have been tested using Kruskal-Wallis test. The sample of four Aerospace and Defense Companies have been selected for the study viz., Bharat Electronics Limited, Bharat earth Movers Limited, Bharat Dynamics Limited and Hindustan Aeronautics Limited. The study depends upon the secondary data extracted from their annual reports, sustainability reports, governmental portal of CSR etc. for the period of six years post implementation of Companies Act, 2013 from 2014-15 to 2019-20. The model framed in the study has been predominantly based upon the thrust areas listed in Schedule VII of Companies Act, 2013. In order to develop the existing model, the latest amendments to the Companies Act have been incorporated till The Companies Amendment Act, 2020. The CSR expenditure devoted towards diverse activities have been listed and the quantum of attention and the extent of contribution have been analyzed on different areas of CSR by each company.

Intra Company Hypothesis

H_{01} - There is no significant difference in the CSR expenditure of individual Aerospace and Defense Companies (BEL, BEML, BDL and HAL) since 2014-15 to 2019-20.

Inter Company Hypothesis

H_{02} : There is no significant difference in the year wise CSR expenditure of sampled Aerospace and Defense Companies.

Overall Comparison

H_{03} : There is no significant difference in the CSR expenditure pattern of sampled Aerospace and Defense Companies.

Data Analysis and Interpretation

The details of CSR expenditure of Aerospace and Defense Companies from 2014-15 to 2019-20 are as follows:

*See details in Appendix- Table 1, Table 2, Table 3 and Table 4

The CSR expenditure of BEL recorded an increase of 537.20% in a span of 6 years while BEML has been overall reflected a decreasing trend in 2016-17, 2017-18 and 2018-19 except in year 2015-16 and 2019-20 with an increase percentage of 40.67% and 39.35% respectively. The CSR expenditure of BDL has overall portrayed an increasing trend from 2014-15 to 2017-18 but took a slight downfall from 2018-19 to 2019-20 by 15.39%. However, there has been a volatility in the CSR expenditure of HAL across the sampled time period. The area of promotion of education and enhancing vocational skills have been given maximum diligence by BEL and BEML in each year with the maximum contribution towards it in each year followed by Healthcare and Sanitation while BDL has contributed maximum towards Healthcare and Sanitation 39.85% of total expenditure in aggregate of six years and HAL has inclined its maximum contribution towards one particular area in each year like in Healthcare and Sanitation in 2014-15, Environmental sustainability in 2015-16 and in promotion of education in rest of the years. The dimension of environmental sustainability, protection of art, heritage and culture, promotion of national and rural sports, measures for armed forces veterans and rural development have been given extremely minimal or no attention at all by the companies. Furthermore, the areas like women empowerment, welfare of child and senior citizens, contribution towards various Govt. funds, contribution to technology incubators, slum area development and disaster management and relief activities have not been given any consideration at all in any year by any company of Aerospace and Defense sector.

Intra Company Comparison

Using IBM SPSS22, Kruskal Wallis test has been applied to test whether BEL, BEML, BDL and HAL shows any difference in the CSR expenditure when intra-company comparison is drawn for year 2014-15 to 2019-20.

Table 5: Mean ranks of years for the companies

Year	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total
N	13	13	13	13	13	13	78
BEL	40.38	46.54	39	36.19	38.85	36.04	-
BEML	41.31	45	37.62	37.58	37.62	37.88	-
BDL	31	39.85	42.08	43.92	41.69	38.46	-
HAL	37.35	39.58	39	38.54	40.42	42.12	-

According to table 1.5, BEL and BEML reflect their highest mean rank in 2015-16 which depict their best performance in terms of CSR expenditure in that year. For BDL, the mean rank is the highest in year 2017-18,

while for HAL, the mean rank is the highest in year 2019-20 which reflects their best performance in those years.

Table 6: Results of Kruskal Wallis test for the Companies

	Chi-Square	Degree of freedom	p-value
BEL	2.44	5	0.786
BEML	1.948	5	0.856
BDL	3.385	5	0.641
HAL	0.373	5	0.996

Table. 6 shows that since p-values for all the companies are greater than 0.05, this implies null hypotheses are accepted for all the companies at 5% level of significance. Hence, there is no significant difference in the CSR expenditure pattern of all the four companies individually over the years.

Inter Company Comparison

Using IBM SPSS22, Kruskal Wallis test has been applied to test whether the companies show any difference in the year wise CSR expenditure from year 2014-15 to 2019-20.

Table 7: Year wise mean ranks of the companies

Year	BEL	BEML	BDL	HAL	Total
N	13	13	13	13	52
2014-15	28.08	25.54	22.69	29.69	-
2015-16	28.31	24.46	25.27	27.96	-
2016-17	25.92	21.38	28.69	30	-
2017-18	24.04	21.31	30.35	30.31	-
2018-19	25.46	20.77	28.42	31.35	-
2019-20	24.42	22.38	26.92	32.27	-

According to table 7, it has been found that HAL reflects the highest mean rank in the years 2014-15, 2016-17, 2018-19 and 2019-20 which depicts its better performance in context of CSR expenditure covering the different areas in comparison with other companies. In year 2015-16, the mean rank is the

highest for BEL and in year 2017-18, BDL is having the highest mean rank which means they have performed better than other companies in terms of contributing towards different areas out of their total expenditure in these respective years.

Table 8: Results of Kruskal Wallis test for the years

Year	Chi-Square	Degree of freedom	p-value
2014-15	2.288	3	0.515
2015-16	0.729	3	0.866
2016-17	3.128	3	0.372
2017-18	4.475	3	0.215
2018-19	4.28	3	0.233
2019-20	4.037	3	0.257

Table. 8 shows that since p-values for all the years are greater than 0.05, this implies null hypotheses are accepted for all the years at 5 % level of significance. Hence, there is no significant difference in the year-wise CSR expenditure of the companies.

applied to test whether the companies show any difference in the CSR expenditure pattern from year 2014-15 to 2019-20. For this analysis average expenditure in percentage from year 2014-15 to 2019-20 has been calculated for all the four companies.

Overall Comparison

Using IBM SPSS22, Kruskal Wallis test has been

Table 9: Overall Mean ranks of the companies

Company	N	Mean Rank
BEL	13	27.77
BEML	13	19.08
BDL	13	31.04
HAL	13	28.12
Total	52	-

From table 9, it is found that the mean rank is highest for BDL which reflects its best performance amongst all the companies in said time period and BEML is

having least rank which depicts it has performed poor in comparison with other companies during the years 2014-15 to 2019-20.

Table 10: Results of Kruskal Wallis test for the Companies

	Chi-Square	Degree of freedom	p-value
Overall	4.719	3	0.194

Table. 10 shows that since p-value is greater than 0.05, this implies null hypothesis is accepted at 5 % level of significance. Hence, there is no significant difference in the CSR expenditure pattern of sampled Aerospace and Defense Companies from 2014-15 to 2019-20.

Findings and Suggestions

Out of the sampled companies, BEL and BDL have increased their amount of contribution towards various CSR activities while BEML has portrayed the decreasing trend and HAL has portrayed a mixed trend of expenditure in a span of six years. Furthermore, each company has tried to cover most of the dimensions prescribed by the Companies Act, 2013 in Schedule VII but BEML lags behind a bit in this aspect. The expenditure pattern of BEML reflects a little concentrated approach that its contribution has

been confined mainly towards education. The other companies like BEL, BDL and HAL too, though contributed towards diverse areas covering most of all, have been focused upon one or two dimensions, contributing maximum fraction of their gross contribution towards those areas. The various areas like women empowerment, child and senior citizen welfare, protection of national heritage and culture, contribution to various government funds, contribution towards institutional technology incubators, promotion of rural sports and other activities have received a volatile attention by each company. The slum area development and disaster management and relief activities have not been touched upon by any company in any year. Also, environmental pollution has been an alarming area in

India, but against the expectations, the amount of contribution towards it has been always found to be truncated. In order to prove a relevant hypotheses developed, the results of Kruskal Wallis test depicted no significant difference in CSR expenditure pattern of the companies over the years when compared with oneself and each other. This denotes that companies do not tend to alter their pattern of spending towards CSR which reflects their inclining approach towards their contribution.

The companies should not only adhere to an inclusive approach but should also make a considerable contribution towards various areas rather than concentrating the funds towards a single or two areas. The environment of the country gets mostly affected by the manufacturing industries which releases different harmful gases and wastes into it, leading to its continuous depletion. Hence, the area of environmental sustainability need to be addressed at a greater extent in comparison of the current contribution towards it. It can be further suggested that likewise the guidelines for 2% of three years' average profits mandatory contribution, the guidelines for the expenditure pattern to be followed should be drafted to ensure an inclusive and equivalent approach of CSR expenditure.

Conclusion and Future Scope of the Study

The CSR mandate has ushered a new era of spending towards the social activities and reporting about it. This has steered up the quantum of the expenditure by the companies for discharging their social obligations. All the companies are contributing well towards the diverse areas of CSR. But the ambiguity over the manner in which these areas need to be addressed leads to the concentration of the expenditure towards one or two areas. While, the other areas get a very little consideration or no consideration at all. The inclusive and equivalent approach is being entailed to be adopted in order to expand the scale of the welfare so that every dimension develops at an enhanced pace. The environmental sustainability is a significant area that requires attention more than it is getting in current scenario, thus the companies should work upon to increase the quantum of expenditure towards it to ensure that they get resources in future unceasingly. The future study can be conducted by increasing sample size, taking other sectors or type of units and by making comparative analysis of various sectors to get more generalized results.

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Appendices

Table 1: Details of CSR Expenditure of Bharat Electronics Limited for the years 2014-15 to 2019-20

Measures	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20		Total	
	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%
Total CSR Expenditure	4.57	100	7.89	100	11.64	100	14.39	100	24.16	100	29.12	100	91.78	100
Eradicating Hunger, Poverty and malnutrition, promoting health care & sanitation	1.03	22.55	1.69	21.35	0.54	4.60	0.05	0.37	0.54	2.25	0.30	1.03	4.15	4.52
Promoting Education & enhancing vocational skills	3.09	67.71	3.29	41.63	9.57	82.22	13.28	92.26	20.87	86.37	18.62	63.94	68.72	74.88
Promoting gender equality, empowering women, child and senior citizens welfare & reducing inequalities	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ensuring Environmental sustainability	0.17	3.72	0.69	8.75	0.10	0.86	-	-	-	-	-	-	0.96	1.05
Protection of national heritage, art & culture	0.125	2.73	0.17	2.14	-	-	-	-	-	-	-	-	0.29	0.32
Measures for the armed forces veterans, war widows & dependents	0.15	3.282	-	-	-	-	-	-	-	-	0.2	0.69	0.35	0.38
Training to promote sports at national & international level	-	-	0.65	8.24	-	-	-	-	0.5	2.07	-	-	1.15	1.25
Contribution to various Govt. funds for welfare of society & backward classes	-	-	-	-	-	-	-	-	-	-	10.00	34.34	10.00	10.90
Contribution towards technological advancement	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rural and Urban development	-	-	0.19	2.38	0.14	1.20	0.39	2.72	0.56	2.32	-	-	1.28	1.40
Slum Area Development	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disaster Management and Relief Activities	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	1.22	15.50	1.29	11.12	0.67	4.64	1.69	6.98	-	-	4.87	5.31

Source: Author's Calculation on the basis of the data taken from Annual Report of BEL

Table 2: Details of CSR Expenditure of Bharat Earth Movers Limited for the years 2014-15 to 2019-20

Measures	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20		Total	
	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%
Total CSR Expenditure	3.27	100	4.60	100	3.51	100	3.35	100	3.10	100	4.32	100	22.14	100
Eradicating Hunger, Poverty and malnutrition, promoting health care & sanitation	0.1997	6.11	0.3296	7.17	0.023	0.66	0.0044	0.13	0.0053	0.17	0.0055	0.13	0.57	2.56
Promoting Education & enhancing vocational skills	2.9599	90.62	2.9327	63.80	3.4855	99.29	3.3401	99.81	3.09	99.76	4.25	98.32	20.06	90.60
Promoting gender equality, empowering women, child and senior citizens welfare & reducing inequalities	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ensuring Environmental sustainability	0.0828	2.53	0.874	19.01	-	-	-	-	-	-	-	-	0.96	4.32
Protection of national heritage, art & culture	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Measures for the armed forces veterans, war widows & dependents	-	-	0.2085	4.54	0.002	0.06	0.002	0.06	0.002	0.06	-	-	0.21	0.97
Training to promote sports at national & international level	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Contribution to various Govt. funds for welfare of society & backward classes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Contribution towards technological advancement	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rural and Urban development	0.024	0.735	0.2519	5.48	-	-	-	-	-	-	0.07	1.55	0.34	1.55
Slum Area Development	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disaster Management and Relief Activities	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: Author's Calculation on the basis of the data taken from Annual Report of BEL

Table 4: Details of CSR Expenditure of Hindustan Aeronautics Limited for the years 2014-15 to 2019-20

Measures	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20		Total	
	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%
Total CSR Expenditure	45.77	100	90.71	100	67.96	100	77.29	100	72.45	100	82.00	100	436.18	100
Eradicating Hunger, Poverty and malnutrition, promoting health care & sanitation	23.42	51.17	5.07	5.59	6.46	9.50	5.40	6.99	2.47	3.40	9.26	11.29	52.07	11.94
Promoting Education & enhancing vocational skills	2.34	5.12	17.55	19.35	35.26	51.89	50.14	64.87	50.16	69.23	31.86	38.85	187.32	42.94
Promoting gender equality, empowering women, child and senior citizens welfare & reducing inequalities	0.66	1.44	0.12	0.13	1.23	1.80	0.304	0.39	0.25	0.35	-	-	2.56	0.59
Ensuring Environmental sustainability	9.82	21.46	56.10	61.85	7.52	11.06	10.13	13.10	3.00	4.14	0.91	1.11	87.48	20.06
Protection of national heritage, art & culture	-	-	-	-	-	-	-	-	0.22	0.30	-	-	0.22	0.05
Measures for the armed forces veterans, war widows & dependents	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Training to promote sports at national & international level	0.67	1.47	0.96	1.06	1.46	2.15	0.92	1.19	4.88	6.74	2.21	2.69	11.10	2.54
Contribution to various Govt. funds for welfare of society & backward classes	-	-	-	-	-	-	-	-	-	-	20.00	24.39	20.00	4.59
Contribution towards technological advancement	-	-	0.41	0.45	0.08	0.11	-	-	-	-	0.1	0.122	0.59	0.134
Rural and Urban development	8.85	19.34	9.92	10.93	15.96	23.49	9.63	12.46	8.54	11.79	14.68	17.90	67.58	15.45
Slum Area Development	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disaster Management and Relief Activities	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	0.009	0.002	0.57	0.63	-	-	0.77	0.996	2.53	4.05	2.98	3.63	7.26	1.66

Source: Author's Calculation on the basis of the data taken from Annual Report of HAL

Table 3: Details of CSR Expenditure of Bharat Dynamics Limited for the years 2014-15 to 2019-20

Measures	2014-15		2015-16		2016-17		2017-18		2018-19		2019-20		Total	
	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%	Amount (in Cr.)	%
Total CSR Expenditure	4.16	100	11.25	100	13.18	100	18.39	100	16.83	100	15.56	100	79.38	100
Eradicating Hunger, Poverty and malnutrition, promoting health care & sanitation	3.90	93.75	1.42	12.62	4.75	36.04	8.33	45.26	2.97	17.67	10.26	65.94	31.63	39.85
Promoting Education & enhancing vocational skills	-	-	4.80	42.67	4.43	33.57	6.45	35.07	10.13	60.17	4.24	27.25	30.04	37.85
Promoting gender equality, empowering women, child and senior citizens welfare & reducing inequalities	-	-	-	-	-	-	-	-	0.50	2.99	-	-	0.50	0.63
Ensuring Environmental sustainability	0.26	6.25	-	-	-	-	0.63	3.43	0.14	0.80	-	-	1.03	1.29
Protection of national heritage, art & culture	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Measures for the armed forces veterans, war widows & dependents	-	-	3.5	31.11	-	-	0.5	2.72	-	-	-	-	4.00	5.04
Training to promote sports at national & international level	-	-	-	-	2.25	17.07	-	-	-	-	-	-	2.25	2.83
Contribution to various Govt. funds for welfare of society & backward classes	-	-	-	-	0.15	1.14	0.0493	0.27	-	-	-	-	0.20	0.251
Contribution towards technological advancement	-	-	1.23	10.93	-	-	-	-	-	-	0.236	1.52	1.47	1.85
Rural and Urban development	-	-	0.3	2.67	1.16	8.81	1.76	9.58	2.34	13.90	0.20	1.29	5.77	7.26
Slum Area Development	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disaster Management and Relief Activities	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	0.45	3.38	0.68	3.67	0.75	4.47	0.62	4.00	2.50	3.15

Source: Author's Calculation on the basis of the data taken from Annual Report of BDL

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Onboarding Older Adults to Technology – Challenges and Opportunities

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Abstract

COVID-19 pandemic exposed the world to unprecedented disruption. Home isolation demanded technology driven life and older adults too followed suit. Fear, anxiety, panic, and resistance to change added on the stress of using mobile applications. Navigating multiple mobile applications exemplified stress associated with use of technology. Degenerative changes in physical and mental capacity also make older people technology incapacitated. In this study the authors basing on TAM focused on the perceived usefulness, perceived ease of use and acceptance of technology (mobile applications) in everyday lives by older adults. Both quantitative and qualitative analysis was used to draw conclusion. Assessment of survey responses reveals dark truth about mobile technology adoption by this segment. Life is not smooth with technology available in palm top rather filled with stress. To help older adults embrace technology, specific actions are recommended. This study contributes to the existing body of literature as research on older adults experience with technology is not explored much in the Indian context.

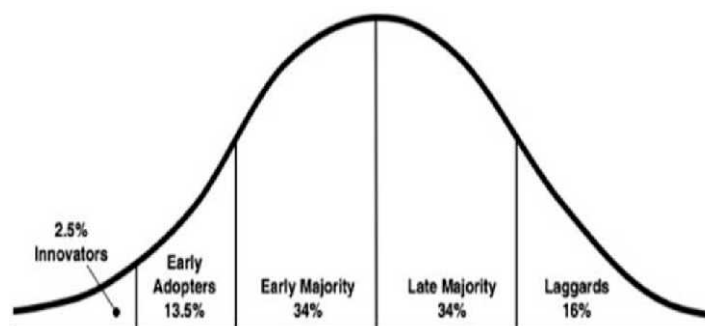
Keywords: Technology Adoption, Mobile Applications, Older Adult, Perceived usefulness, Perceived ease of use.

Introduction

The tremors of unprecedented disruption witnessed during COVID-19 pandemic were felt in all walks of lives. Lock down and home isolation demanded technology driven life. Banking, medical, investment, daily grocery purchase, entertainment, communication, etc were done using the multitude of online platforms. Is thriving in the technology driven world, as easy as child's play? Digital, print and television media is replete with advertisements/shows by renowned personalities on the ease of use of technology (Bacchan, Kaun Banega Crorepati; ETBrandEquity, 2018). Nevertheless the answer may not be a definite 'yes' for all sections of society. United Nations report that, "population ageing is poised to become one of the most significant social transformations of the twenty-first century, with implications for nearly all sectors of society, including labour and financial markets, the demand for goods and services, such as housing, transportation and social protection, as well as family structures and intergenerational ties". (United Nations, n.d.). In India, as indicated by Population Census 2011 there are almost 104 million older people above the age of 60 years. Older people in India are projected to be 173 million by 2026 (India Ageing Report, 2017). It is generally acknowledged that senior people show low change in accordance with the approach of new innovations contrasted with more youthful ages. It is either because they don't have the experience or due to present health status (Clutter & Meara, 2001). This study revolves around older people acceptance of technology (mobile applications) in day to day living.

Literature review and hypotheses development: In the theory - 'Diffusion of Innovation', 5 kinds of innovation adopter category are described (Rogers, 1962). This theory postulates that by diffusion innovation is communicated over time among the participants in a social system.

Figure 1: Categories of Technology Adopters



Source: Innovation Adopter Model (Rogers, 1962)

From Figure 1 we deduce that older generation fall mostly under the 5th category i.e. laggards or 4th category i.e. late adopters. Older people due to degenerative changes in memory capacity postpone the adoption of technology to the last mile possible. Given this background, for this group, learning to use the plethora of mobile application functions is herculean task. Not being able to adopt is daunting as everyday living becomes challenging. The speed with which technology is penetrating in our everyday lives, it becomes imperative to adapt quickly to the changing

technology. Are the older people prepared? In 1989, Davis et. al., propounded the Technology Adoption Model. This model builds on two variables – “Perceived usefulness” and “Perceived ease of use”. It identifies the causes of acceptance or rejection of information technology.

In a study by Miztner et. al., (2010) among 113 older adults in USA, respondents perceived the benefits of technology use to offset the costs of its use. Keeping up functional independence is imperative for older adults. Several studies conducted in between 2003 to 2009 in Europe reported the abhorrence of elderly users towards adoption of technology just because they want to stay updated (Horrigan, 2009; Melenhorst et al., 2006). It is necessary for technology to be perceived to be useful. Heinz et. al., (2012) also endorse older adults are less inclined to embrace new technology unless they are able to identify specific advantages for themselves. Their study converged on five themes (a) Frustrations, Limitations, and Usability Concerns; (b) Transportation; (c) Help and Assistance; (d) Self-Monitoring; and (e) Gaming. Understanding how to use technology without fear shall enable older adults to use technology. Based on these evidences we propose:

H1: There is no significant difference in 'perceived usefulness' associated with mobile application.

Fischer et al. (2014) discern older individuals normally fall behind most recent innovation since they are blocked by restricted communication. A small fraction of the older people utilized ATM services as they found it difficult to conform to new technology. Individuals, who utilized them, detailed fulfilled benefits and discovered that innovation eased their lives (Mollenkopf et. al., 2004). Marston et. al., (2019) surveyed senior people residing in UK and Canada. Analysis of their study ascertained two subject area: facilitators of technology use (i.e., sharing of information and feeling secure), and detractors of technology (i.e., feelings of apprehension of use). Senior adults are dynamically restricted in their capacity to utilize and get to information due to multiplicative impacts that accompany expanding age factor. Carpenter and Buday (2007) conducted field study amongst 324 adults (computer users 115 and computer non users 209) above the age of 65 years in a retirement community in St. Louis, USA. The study concludes intricacy of discovering data, exploring, and utilizing programs were huge hindrances, as were worries about security and protection. Utilitarian hindrances, for example, joint inflammation that meddles with composing, visual shortages, and ergonomic obstructions (e.g., small text dimensions)

were depicted as restricting elements. Based on these evidences we propose:

H2: There is no significant difference in 'perceived ease of use' associated with mobile application.

In India not much research is reported on ageing and elderly population association with technology enabled mobile phones. Hence the motivation for undertaking the present study. Moreover some research conducted in the western countries and reported in this paper as part of literature review during the nineties and early twenties are appropriate in India in the current circumstances.

Data and Methodology: A survey was designed to assess the acceptance or rejection of mobile application technology in day to day lives by older adults. This study is based on the Technology Acceptance Model. Questionnaire consisted of 6 questions on 'Perceived usefulness', 6 questions on 'Perceived ease of use' [both adopted from Davis, 1989 et. al] and 1 open ended question. Crucial information included the respondents (i) Familiarity with mobile technology, (ii) Trust with use of mobile applications, (iii) Benefits due to ease of use, (iv) Inclination to use mobile applications and (v) Challenges encountered while navigating applications. The questionnaire was vetted from industry experts. For this study technology is limited to the number and type of mobile applications used/not used by the elderly people. All respondents had personal smart phones integrated with internet facility. Non probability sampling technique – snowball sampling was used for this study. People above the age of 60 years who had retired from full time employment were the target respondents. Pilot study on 55 respondents was done to test the questionnaire. In the final study, a total of 334 older people from across India accepted our invitation to participate in the direct interview. However 317 responses (Table 2, detailed respondent profile) were used for the study as respondents answered all questions. To check for significant differences between the means of independent groups (age and education) one-way analysis of variance (ANOVA) was used. This test assisted in hypotheses testing and draw conclusion.

Reliability test of structured questionnaire: To measure internal consistency of data, reliability test is used. Using Cronbach alpha it was attempted to understand the efficacy of the questionnaire. Reliability measure was determined whether the same latent variable i.e. “perceived usefulness” and “perceived ease of use” or not. As shown in Table 1 Cronbach alpha score of 0.876 and 0.779 indicates high level of internal consistency (Cortina, 1993).

Table 1: Reliability Statistics

Parameter	Cronbach's Alpha	Number of questions
Perceived usefulness	0.876	6
Perceived ease of use	0.779	6

Source: SPSS output

Table 2: Respondent Profile

Total respondents (N)	Gender %		Age(in years)%		Highest Qualification %			
	M	F	60-70	> 70	>PG	PG	UG	<UG
	67	33	83	17	27	18	33	22
317	71	29	68	32	11	9	61	19
	69	31	75	25	19	14	46	21

Source: Primary Data

Legend: PG= Postgraduate; UG=Undergraduate

All valid responses acquired between 5 July 2020 and 25 February 2021 was a part of this analysis. Sample included men and women with about 75 percent of them in the age group of 60 to 70 years and 25 percent of them being above the age of 70 years. 69 percent of the respondents were male and 31 percent of the respondents belonged to female gender. Geographical spread of respondents were over 6 Indian states namely Maharashtra (86), Delhi (88), Rajasthan (47), and Madhya Pradesh (33), Andhra Pradesh (38), and Assam (25).

Result and Discussion

H1: There is no significant difference in “perceived usefulness” associated with mobile application and age of the respondents.

Perceived Usefulness: In our study “Perceived Usefulness” is defined as the extent to which an individual accepts that using a particular mobile application would improve their life. High degree of perceived usefulness indicates the user belief in positive use-performance relationship.

Table 3: ANOVA – Perceived usefulness of Mobile Application with Age

		Sum of Squares	df	Mean Square	F	Sig.
Help_check_regular_purchases_finances_medications_I_should_take	Between Groups	21.489	1	21.489	12.698	.006**
	Within Groups	533.085	315	1.692		
	Total	554.574	316			
Help_better_manage_and_keep_track_of_finances_and_medications	Between Groups	104.090	1	104.090	40.111	.000**
	Within Groups	817.443	315	2.595		
	Total	921.533	316			
Help_to_not_miss_any_recurring_payments_and_medications	Between Groups	13.340	1	13.340	8.082	.005**
	Within Groups	519.941	315	1.651		
	Total	533.281	316			
Enhance_my_quality_of_life	Between Groups	.739	1	.739	.614	.434
	Within Groups	379.071	315	1.203		
	Total	379.811	316			
Make_it_easier_to_manage_my_finances_and_health	Between Groups	34.033	1	34.033	23.500	.002**
	Within Groups	456.188	315	1.448		
	Total	490.221	316			
Useful_in_my_everyday_life	Between Groups	.440	1	.440	.211	.647
	Within Groups	658.235	315	2.090		
	Total	658.675	316			

**significant at 5 percent level. Source: SPSS output

As per evidence thrown by the sample in Table 3, we reject H1, as the p value is less than 0.05. We are 95 percent confident that respondents in different age groups have different response to 'perceived usefulness' of mobile application. Most of the respondents were not comfortable operating their mobile handset along with the various applications. Our survey reveals that perceived usefulness is very low among respondents. Increased fear of perceived risk is a deterrent in older adults willing to try and adopt new technology. Cognitive changes, emotional and aging years impact an elderly person's enthusiasm to engross in use of mobile application in daily lives. Visual discomfort caused frustration in the older adult's capacity to successfully explore the applications on cell phone. All these reasons clubbed

together gave low positive response with respect to 'Perceived Usefulness' of mobile applications.

H 2: There is no significant difference in “perceived ease of use” associated with mobile application and qualification of the respondents.

Perceived ease of use: Perceived ease of use is segregated into 2 main clusters – first relates to physical effort and second relates to mental effort. Recollecting how to perform tasks, utilizing the manual and depending on system direction are largely related with the way toward figuring out how to utilize a system. 'Learning' and 'using' are two disjoint activities. However there exists strong correlation between “ease of learning” and “ease of use” (Roberts & Moran, 1983).

Table 4: ANOVA – Perceived ease of use of Mobile Application with Education

		Sum of Squares	df	Mean Square	F	Sig.
Learning_to_use_mobile_app_was_easy	Between Groups	7.524	3	2.508	4.939	.003**
	Within Groups	404.791	313	1.293		
	Total	412.315	316			
Easy_to_get_the_mobile_app_do_w_hat_I_want_to_do	Between Groups	5.257	3	1.752	3.524	.028**
	Within Groups	1047.513	313	3.347		
	Total	1052.770	316			
Instruction_mobil_e_app_clear_and_understandable	Between Groups	17.664	3	5.888	1.616	.186
	Within Groups	1140.771	313	3.645		
	Total	1158.435	316			
Mobile_app_flexi ble_to_use	Between Groups	3.692	3	1.231	3.349	.000**
	Within Groups	1102.989	313	3.524		
	Total	1106.681	316			
Easy_for_me_to_become_skillful_at_using_apps	Between Groups	17.207	3	5.736	3.014	.001**
	Within Groups	595.670	313	1.903		
	Total	612.877	316			
Find_the_apps_to_be_easy_to_use	Between Groups	6.968	3	2.323	.897	.443
	Within Groups	810.187	313	2.588		
	Total	817.155	316			

**significant at 5 percent level. Source: SPSS output

As per evidence thrown by the sample in Table 4, we reject H2, as the p value is less than 0.05 in 4 out of 6 cases. We are 95 percent confident that respondents 'perceived ease of use' varies across their different education level. Survey reveals respondents are anxious and intimidated by difficult user interfaces. Loss of functional capabilities is an obstacle in 'Perceived ease of use'. Older people are not able to infer the instruction on use of mobile app easily. They avoid usage of technology due to low self-confidence about learning or updating their knowledge. According to Technology Adoption Model, a positive combination of “Perceived Usefulness” (PU) and “Perceived ease of use” (PEU) gives rise to Behavioral Intention which culminates into “Actual System Use”.

From our survey we find the strong relationship between PU and PEU exists for only a miniscule percentage of the sample under study. Thereby we infer 'Actual Usage of Mobile Applications' remains a distant dream for a large section of the respondents.

Figure 2 depicts the keywords used by respondents while describing their aversion for use of technology in day to day lives. Three critical themes emerge from the description of limited technology usage by the respondents, namely— fear, anxiety, lack/low confidence, and fraud. Respondents expressed their fear of loss of money due to wrong passwords, inappropriate data entry etc. Carrying of physical cash has its own share of advantages and elderly people are most comfortable with the traditional means of



Figure 2: Reasons for technology aversion

Source: Primary data

payment. 34 percent of respondents mentioned they have strong sense of social responsibility for physical interaction.

The next serious element as mentioned by the respondents is the lack/low confidence which shows up as a major barrier in adoption of mobile technology. This can be associated with low digital literacy skill. Accelerated pace of innovation in mobile applications is demanding for older generation to acclimatize themselves. 'Anxiety' is bound to surface when fear and inadequate confidence encompasses an individual. For an elder person with degenerative physical conditions - hands trembling, low vision, inability to recall login credentials it subconsciously makes the person anxious. Financial apps are least preferred as the fear of loss of money is the highest. As such, having access to infrastructure does not imply automatic usage of all its features. Advancement in technology does not guarantee a fool proof safe and secure system. There exists a dark world web of cyber criminals who are constantly pilfering personal data. Older people expressed the fear of being subject to fraud and the imminent loss they would face. 20 percent respondents also narrated personal incidents of being victimized by cybercriminals and they lost money. A popular grocery app in India - Bigbasket reported data of 2 crores users being leaked. With this data breach, user can be target of phishing attack or other related scams. Not restricted to financial frauds, there exists high probability of identity theft, customer care scam, OTP scam, delivery scam and many more innovative scams designed by conniving scamsters (*Business Standard*, 2020). All users of mobile applications and digital payment channels are susceptible to online fraud. However the older generation being more vulnerable, their inability to update/alter/keep track of the changing requirements categorizes them at high risk. Bakshi & Bhattacharyya (2021) reported similar findings in the Indian context - blocks in dynamic use of ICT specifically attitudinal obstructions, earlier regrettable experience, worries over network protection, several menu options in apps and absence of learning space are additives for slow adoption of technology amongst senior citizens.

5. Recommendation: When technology is part and parcel of life, it is imperative to provide protection of

people using technology. It is recommended that banking authorities run continuous campaign to explain the simplicity and benefits associated with mobile apps. Emphasis has to be laid on how the older adults need to be alert on fraud tactics used by cyber criminals. Insurance coverage at nominal premium may be offered to elderly people. At branch level, bank manager may identify the number of account holders who are above the age of 60 years. Focused hands on sessions may be arranged for them on how to use mobile apps. As part of discharge of corporate social responsibility, corporates may also set up kiosks at where older people can visit and get hands on exposure on app usage. Home service may be provided to people who are unable to join the physical sessions or visit kiosks. Those companies may track the usage of mobile applications by elderly people and provide assistance in swift adoption of technology. Our study confirms to the findings by Czaja and Lee (2009). The requirements and inclination of older adults interface with technology and mobile application should be seen through independent perspective. Technological innovation can't be planned as 'one size fits all'.

Conclusion: This study opens up the Pandora's Box. It highlights the bruising reality of digital divide amongst generation. Our study supports the research by William and Murugesh (2018) where they address the low rate of technology adaption. The risk of digital exclusion of older people is high. On one hand exists a realm continually developing with technology and on the other end of the spectrum are the older people who juggle with basic technology. Ghosh, (2019) also reinforces that older adults should be encouraged and trained to use technology. Smooth usage of apps comes from a balance between confidence and assurance. Efforts need to be taken to erase the conflict between 'Perceived usefulness' and 'Perceived ease of use'. All stakeholders should take steps to prepare the older generation for a world in which they can meaningfully engage with technology.

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A Conceptual Model on Impact of Psychological Capital on Employee Engagement: Mediating Effect of Perceived Organizational Support

Nina Muncherji, Smita Pillai

Abstract:

This article is aimed at improving organizational effectiveness by highlighting the importance of psychological capital and the mediating effect of perceived organizational support on employee engagement. Hope, Self-Efficacy, Resilience and Optimism (HERO), within an individual, a higher-order construct has the maximum strength and capacity to provide momentum to individuals to achieve higher performance. This study focuses on proposing a conceptual framework on personal resources and job resources together for employee engagement from the lens of JD-R framework and Conservation of Resources theory.

The practical implication of the research for Human Resource Managers is to introduce the timely psychological interventions to improve individual capacity rather than just improving the system and policies to achieve sustainable growth.

Keywords

Psychological Capital, Perceived Organizational Support, PsyCap Intervention, Employee Engagement, Conservation of Resources, JD-R Model, Social Exchange theory

Introduction:

Organizations across the world are asking the questions. “Are people engaged? Or they are enraged?”. What makes the organizations different from each other? After the rise of Industry 5.0 the industries are moving from digitalization and automation to human touch and craftsmanship (Selvaraj, 2019). The future would be for cognitive computing where organization will apply human intelligence and thought processes to the computer and achieve innovation and customized product for the customers to achieve brand value. So human assets are not going to be outdated in the times to come. Previous research and failures of many organizations have already given them a learning that investing on digitalization and technology will give them ROI after 3 years and by that time the technology would be outdated and they would need to again be on the run for a new transformation. So, in real terms, the return is not seen or enjoyed by the investors. Instead, just a small investment on upgrading human assets will increase the return on investment with high performing workforce. Compared to all traditional capital (financial, structural/physical, and technological), Human Capital, Psychological capital has proven to be long-term, unique, and renewable source to achieve competitive advantage and sustainability (Luthans & Youssef, 2004). Jefferey Pfeffer, An American Professor said, “about seven-eighths of today's organizations "just don't get it"—what he has called "the knowing-doing gap." The gap can be reduced by “doing” of the Human Resource Department to regain competitive advantages, through the recognition and effective management of human, social and now positive psychological capital. There are a few researches focusing on the impact of perceived organizational support on engagement by considering many different factors like Job demands, Personality, PsyCap and other variables as moderator and mediator. However, the organizational policies for rendering support to employees are considered to be fixed and as per policy guidelines they cannot be different and extended for individual employees. This has opened the arena for our research objective that Psychological Capital is the individual capacity and it can be improved and developed through training and intervention. So, irrespective of whether there is perceived support or policies in favor of employees or not, if individuals PsyCap are improved, the employees will not be impacted by the policies and they will continue contributing to organizational success. This study focuses on the Impact of Psychological Capital on Employee Engagement directly and also indirectly through the mediator i.e. perceived organizational support.

Literature Review:

Psychological capital is defined as “the individual's positive psychological state of development component characterized by Hope, Self-Efficacy, Resilience and Optimism or HERO within oneself” (Luthans & Youssef-Morgan, 2017). Psychological Capital is a second higher order construct based on the shared commonalities of four first order construct like hope, self-efficacy, resilience, and optimism. These four-constructs work together as 'Resource Caravan' when they travel together may synergize and will produce evident result over time and across the functions (Hobfoll, 2000). It also has some influence of Broaden and Build theory, this theory is based on the concept that positive emotions will broaden the awareness

and help in building the resilience and coping skills in individuals.

Hope: Charles Synder, the pioneer of the Hope research has given three components to the world. They are Goal, Agency, and Pathway. Agency is a belief on oneself that we can make things happen, Pathway is to strategize or plan the road map and Goal is about how you can get there or achieve them (Weir, 2013). Higher hope is positively related to the higher performance (Lopez et al, 2009). Synder and his associates in their research have found that the human resource with higher hope are more profitable compared to those with lower hope and show higher retention rate and greater satisfaction level and overall well-being (Adams, et al., 2003).

Self-Efficacy: Self-Efficacy is the “belief in one's capabilities to organize and execute the course of action required to produce given attainment” (Bandura, 1997). Self-Efficacy is the most important psychological mechanism for achieving work-related outcome (Stajkovic & Luthans, 1998). Higher the level of self-efficacy higher is the level of work performance of employees (Randhawa, 2004). In one of the research finding, the self-efficacy is also related to commitment among US Certified clinical perfusionists with 99% confidence interval (Garcia, 2015). Employees with higher self-efficacy possess full energy, feel dedicated, and are absorbed in work which fosters employee engagement (Hidayah Ibrahim, Suan, & Karatepe, 2019).

Resilience: Resilience was discussed as a personality trait many years ago. Later the researchers confirmed that it can change when the individual interacts with the environment (Kim-Cohen & Turkewitz, 2012). Resilience has been tested in different contexts such as 'healthcare', 'education', 'social policy' like work environment. Resilience is defined as “positive psychological capacity to rebound, to 'bounce back' from adversity, uncertainty, conflict, failure, or even positive change, progress and increased responsibility” (Luthans, 2002). Resilience when applied to the workplace leads to a positive change in workplace with increased responsibility, employee well-being and job performance (Kašpárková, Vaculík, Procházkaa, & Schaufeli, 2018). High resilience is also connected to high job engagement and work engagement which further leads to good health and its related work ability.

Optimism: Optimism is defined as 'individual's positive attributional style about success' (Seligman, 1998). Optimism can be a 'state' as well as a 'trait'. Here, for psychological capital we consider state as it can be developed by proper interventions. State optimism has a significant impact on reduced burn out and increased commitment, satisfaction, task

performance and other job related outcomes (Kluemper, Little, & DeGroot, 2009). Optimism also has a significant impact on life-satisfaction and mental well-being of individuals (Scheier & Carver, 1985).

Thus higher-order psychological capital is related to positive employee outcome like job satisfaction, performance, engagement, organizational citizenship behavior and intention to stay. Psychological capital and perceived organizational support together impact the employee engagement positively. As we know, when individuals are high on psychological capital, they perceive that they have capability and when they get right amount of support from organization, they show outcomes like individuals being engaged and committed.

Why and How Psychological Capital Improves Employee Engagement?

Bandura through his studies has proven that the personal resources are positively related to job resources (like perceived support from organization) and further leads to employee engagement (Lorente, Salanova, Martínez, & Vera, 2014). Psychological Capital fosters the positive emotions in individual employees and in turn will enhance the engagement. The increase in positive psychological studies and the growing importance of human capital and their psychological involvement in business development has given a boost to employee engagement concept.

Employee Engagement:

Employee involvement has evolved to describe one's resources or energy and self-investment in one's job role from the word 'Embracement' coined by Goffman in 1961. It was later that employee engagement appeared in the academic literature.

Kahn (1990) introduced the concept of 'employee engagement' to the academic literature. The author defined engagement as “the harnessing of organization members' selves to their work roles; self-employment and self-expression of people physically, cognitively, and emotionally in their work lives.” In addition, the author posited three prerequisites for employee engagement, these are safety, meaningfulness, and availability. Maslach and Leiter (1997) defined engagement as “an energetic state of involvement that is opposite of burnout” or falls on the two ends of the continuum. According to Schaufeli et al. (2002), “employee engagement is a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption”. 'Vigor' is the level of mental endurance, energy and persistence. 'Dedication' refers to the state of mind and emotion reflecting meaningfulness, inspiration, eagerness, and pride and finally, 'Absorption' is being fully involved in one's work physically, mentally and emotionally. This definition by Schaufeli is being the

base for the Utrecht Work Engagement Scale (UWES) which is widely used in engagement research.

It can be noted from the aforementioned discussion that no single agreed-upon concept of engagement exists. However, the present study adopts the definition given by Schaufeli et al. (2002) as this conceptualization of engagement has become the dominant in academic literature. There is an immediate rise in the research paper on the topic of employee engagement after the few scholars like Martin Seligman (1990) has claimed the science of positive psychology and the concept of work engagement fits into this approach. This shows that "Positive psychology has laid a fertile soil for the area of research in engagement has blossom". In the longitudinal study by Xanthopoulou, Bakker, Demerouti, & Schaufeli (2009) for 18 months found that the personal resources (like self-efficacy, optimism) later lead to work engagement.

Propositions P₁: Psychological capital has a significant positive relationship with employee engagement

Perceived Organizational Support (Mediator)

In 1986, Eisenberger and his associates have developed POS construct considering organizational support and social exchange theory. Perceived organizational support will be influenced by various factors like pay, policies, appraisal, reward, extremity and frequency of appreciation. POS generally works on reciprocal relation with employee engagement. Perceived Organizational Support has a positive influence on employee engagement, well-being, performance and inverse relation with absenteeism (Eisenberger, Huntington, Hutchison, & Sowa, 1986). Personal resources (PsyCap) and Job Demand-Resource (like POS) will come together in a synergy as stated in Conservation of Resources Theory to form a Resource Caravan to energize and motivate employees to stay engaged in work. Enriching resource caravan for ecosystem towards engagement can happen only if the resources are properly aligned. Successful organizations provide employees with organizational support, safety, security, employee resources, and also share the internal resources to be used for successful accomplishment of organizational mission. These mentioned resources together known as resource caravan for sustainable organization. This also serves as a resource passageway in which resources are shared, created, fostered and pooled for the organization success (Hobfoll S. E., 2000; Hobfoll S. E., 2011).

Proposition P₂: Perceived Organizational Support has a significant positive relationship with employee engagement.

Proposition P₃: Perceived Organizational Support

mediates the relationship between the Psychological Capital and Employee Engagement

Base Theories for this Study :

Positive Organizational Behavior: Positive Organizational Behavior is defined as "The study and application of positively oriented human resource strengths and psychological capacity which can be used together for improving the performance in the workplace" (Luthans F., 2002b). Here, In this study Psychological Capital is the capacity that is to be used and improved efficiently to increase engagement

Job Demand-Resource Theory: "According to job demand-resource model, this model helps in predicting the well-being of the employees". The model groups the working conditions into two types: 1. Job Demand 2. Job Resources/positives.

Job Demand is understood here as emotional stressors in one's role. The emotional stressor could be time pressure, work pressure, work overload, poor working conditions, poor peer relationship, role ambiguity.

Job Resources is understood as the physical, social, or organizational factors that help you achieve goals, and reduce stress. They include autonomy, strong work relationships, opportunities for advancement, coaching and mentoring, and learning and development.

It's being proven that the personal resources have an impact on the job demand and job resources. JD-R model states that when the job demands are high and job resources are less employees feel strain and burn-out (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). The managers use JD-R model to increase the employee involvement by increasing their PsyCap (personal resources) leads to increase in Job-Resources which in latter increases the employee engagement. Previous research findings show that the Job demand and Job resources mediates the relationship between PsyCap and Employee Engagement (Grover, Teo, Pick, Roche, & Newton, 2018)

Social Cognitive theory: Social cognitive theory was initially started as social learning theory by Albert Bandura in 1960. Self-efficacy has the critical component of social cognitive theory which has the impact on human behavior, motivation, thought, action and performance. 'Social cognitive theory considers the unique way in which the interaction can happen by controlling the behavior and directing it to the goal achievement behavior. According to social cognitive theory the social interaction plays an important role in behavior modification. Like positive environment and culture will influence the outcome of the behavior (Stajkovic, 1998). So, by improving the efficacy and efficiency of an individual the outcome can be reached.

Broaden and Build Theory: Broaden and Build theory was initially proposed by Barbara Frederickson as a way to address the positive emotions as a work towards positive psychology and also to report and emphasize the lack of research on positive and more on negative emotions (Fredrickson, 2001). The contribution of theory was on broadening awareness towards building resilience and response to events by increasing positive emotions. Every individual goes through difficult phase in life may it be personal or job-related. But through this theory, researcher focus on building the human capital by organization with at most resilient behavior to overcome any crisis they face.

Conservation of Resources (COR):

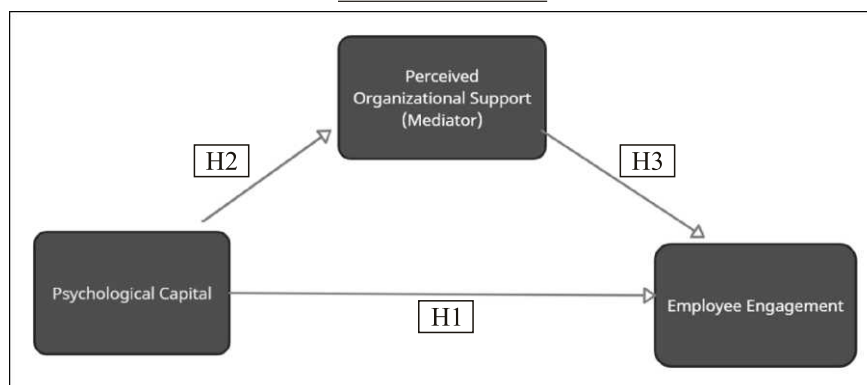
Conservation of Resources (COR): Hobfoll (1989) has introduced the conservation of resources theory as a contribution to stress literature. According to Hobfoll, like animals, humans also tend to reserve their resources when they feel the threat for resource loss. They conserve the resources and use them when required. This theory has been used as a base for many psychological research like PsyCap, Perceived Organizational support, Psychological well-being, engagement and so on. Hobfoll has theorized that the resources do not exist individually but they travel in packs or caravan like PsyCap (Hope, Efficacy,

Optimism and Resilience). As stated in Psychap, it is malleable and can be developed. "The resources are also the result of nurturance and learned adaptation. They are likely to appear as co-traveller" (Hobfoll S. , 2011).

Social Exchange Theory: Social Exchange Theory suggests that there are some exchanges happening when the employer and employees come together. The relationship will be built on the basis of trust and loyal relationships as a rule of exchange by the employer and employees (Cropanzano & Mitchell, 2005). When employees perceive that the employer creates an environment where there are supportive supervisors, they feel obliged to repay the employer through work engagement and desirable outcomes (Saks, 2006). Reciprocity is something that exist in today's workforce. If the employees feel that they are valued, and are receiving enough support from superiors and supportive culture they will definitely show extra-role behavior which will be the motivating factor for emotional, cognitive and physical engagement of the employees at work.

From the above-mentioned theories, we could directly find the relationship between Psychological Capital and Employee Engagement and the mediating role of Perceived Organizational Support

Theoretical Model:



Discussion:

This era of millennial workers is very cautious in using and conservation of their personal resources. The belief of reciprocity in them is very evident. If the personal resources and job resources will match up to their expectation then only, they will be fully engaged. Previous research has also proven that job and personal resources are reciprocally related. When individuals are sure that they are working in resourceful environment they are more committed and engaged. They bring all their personal resources like self-efficacy, optimism together and prepare them for facing demanding situations. They perceive the situation and build in more personal resource to fight

the demand and crisis. Individuals have a tendency to learn from the environment around them and they form stronger positive self-evaluation about themselves and in turn they may realize or build more resourceful work-environment (Kohn & Schooler, 1982). This research opens an arena for the scholars on how the personal-job resources can lead to highly engaged workforce. This is in line with the research done by Gupta, Shaheen, & Reddy (2017), they explained the mechanism of the JD-R Framework for the work engagement. According to them the engaged employees have the ability to utilize their own job resources to cope the job demand and improve job performance and reduce effect of work-alienation. In

the presence of Psychological Capital, employees tends to be more engaged than in its absence. From the extant literature of Engagement, it has been a proven phenomena that engaged employees are intrinsically motivated to fulfil their work-related objective and they will activate their job resources to achieve their performance goal (Meka-A-Pirak, Supanti, Nakorn, Chongphakdi, & Sattayarak, 2020).

Practical Implication

In Indian Organization, HR departments still remain highly focused on policy formulation and bringing disciplinary changes in the organization to make employees perform. They ignore the fact that now they are not dealing with workforce of baby boomers' generation and Gen X, here now there are maximum number of individuals in workforce who are GenY or Millennial generation and a more educated as well as talented workforce. These generations only work on reciprocity, if organization cares and works for their development, values them then only they will contribute. It is also hard to retain them if they are not being valued and not appreciated for the performance done. HR has to be more vigilant about the changes happening in the workforce and implement a robust system where individual PsyCap is to be improved to help them perform and stay with the organization. The organization has to work on timely introduction of psychological training intervention for employees so that they learn to build their resources to meet organizational and environmental demands and keep bouncing back from crisis to continue contributing and help engagement graph not take a dip.

Future Research and Limitation:

PsyCap brings a sense of energetic and affective connection with the individual employees work and they feel that they are able to handle the demands of their work (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). This paper has proposed a conceptual model which can be empirically tested in future through cross-sectional study to look at different kind of impact the model has on different sectors. Even the cross-level studies in hierarchical structure can be conducted, considering managers from different level to look at how personal resources and job resources are producing a magical impact on employee engagement.

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Comparative Freight Performance of Russia, European Union and USA

Uday Shankar Jha

ABSTRACT

This article provides a comparative analysis of freight performance of three important regions of the world: - Russia, the European Union and the United States of America that illustrate a broader framework of changing pattern of their freight performance by their railways. The trajectories of freight working in railways have been varying in different parts of the world at different times with several up and down. However, with massive growth of road transportation there have been gradual shift of the freight from the railways to roadways particularly white and blue goods. Still the transportation of bulk commodities have been reverted back to the railways and even some quantity of blue goods have come back to the railways particularly once the facilities of railways have improved. Initially this study connotes the freight performance of the railways after disintegration of USSR that encouraged private participation in railway operation which is followed by the declining European Union performance of railways during 1970 whereby Britain took a lead of privatization without any major improvement in market share as against road which is followed by the roller coaster ride of railways in USA. This comparative study thus presents how the trajectory of railways is different in each country and how in coming future it is going to be shaped by various factors operating in any country.

Keywords

Rail Transport, Freight, Road Freight Transport.

Freight Performance of Russian Railway

Third largest network of world is in Russia where there is railway network of 85,200 km. Out of this 43,300 km are electrified. It has 12.18 lakh freight railcars, 11,100 freight locomotives (diesel and electric) and 6,100 diesel switching locomotives. Disintegration of Soviet Union has severe negative effects on Russian railway industry. At one hand freight volume decreased from 2500 billion tonnes km in 1990 to 1150 billion tonnes km in 1995. During this time losses from passenger services increased. This led to financial deficit, deterioration in its assets and decline in its productivity. In the past profit of freight transportation was used to compensate the loss of passenger transportation. To overcome this crisis rate of freight transportations was increased. However, this resulted in reduction of freight transportation itself. Quality of track, investment in new equipments and maintenance declined. Since assets and infrastructure deteriorated, the track kilometre under speed restrictions increased by about 30 percent. Thus, most of its rolling stocks were relatively outdated and in need of either renewal or decommissioning.

Somewhere in 1997 the Russian government decided the process of railway reforms to achieve the goal of better safety and higher quality and presence in entire Russia so that complete transportation facility is available in all part of Russia. To get private sector players association positive financial conditions were framed for Railway industry. Hence, in 2001 Russian government started supporting and funding a comprehensive reform process to achieve greater efficiency and competitive advantages. According to Russell Pitman and Milla Laiis these reform process can be divided into three stages:

During first phase of reform in 2001 and 2002 government function and railway operations function were divided. For regulation purpose FRTA (Federal Railway Transportation Agency) was created. Operation activities were handed over to RZD (Rossiiskie Zheleznnye Dorogi). It maintained Railway Infrastructure and operated trains for freight and passengers. The RZD provided open access to any outside agency like any company of wagons or locomotives. For this infrastructure access price was separately charged, whereas, charges for wagons and locomotives were also collected separately.

Second phase of reform started in 2003 when "Federal Charter of Railway Transport" delineated business model and area of responsibility for private players. Cargo companies were given freedom to operate their own cargo. This facilitated emergence of private rail operators and rolling stock leasing companies. They were allowed to give wagons on rent to customers or to provide logistic solutions. Separate business units with independent accounting system were created for various areas by RZD. Thus during this phase a separate subsidiary was created for long distance freight hauling and it was separated from passenger operations, commuter operations, construction and maintenance infrastructure and activities. In this period, non-discriminating infrastructure access conditions for independent train operations were created and implemented. Even RZD sold some of its locomotives and rolling stocks to those operators. In passenger segment the system of cross subsidy from freight earning was discontinued. Instead, government provided subsidy for passenger transportation Third phase

started from 2006. Increasing competition was main goal during this time by separating activities from the infrastructure operations. However, this was done only in organizational situation and single parent company was still running all subsidiaries.

By 2005, privately owned wagons made one third of the country's freight traffic. By 2011. RZD formed First Freight Company (FFC) for wagon holding so that competitive environment is created. Initially in 2011 FFC was initially holding three fourth wagons. This increased to hundred percent by controlling all 2.17 lakh wagons by 2017.

After these reforms the regulatory and policymaking function remained with governmental agencies whereas business operation was given to the RZD. Various subsidiary activities, like running schools, hospitals hotels etc was handed over to other agencies. By above steps even RZD owned companies started facing competition from other independent operators. By 2012 several private companies like 'Global Trans', Gazprotrans etc. came into existence. Even RZD sold its assets to FFC. Subsequently, RZD also disposed its 18 repair and maintenance depot. Due to this share of privately owned wagons increased to 80 percent by 2013. Remaining repair depots were separated into two competing companies.

Outcome of Reform:

Action taken since 1995 had an impressive result. By 2010 freight turnover by Russian railway increased around 90 percent. Different global economic crises like slow down of 2008, fluctuation of oil prices, changes in economic condition of Russia etc. has some effects. Still freight turnover was continuously increasing, through, slowly several times. By 2014 freight traffic increased to 2.30 trillion km. This was 42.3 percent higher than that of 2003. Even after that, freight traffic has been increasing slowly with some ups and down. As far as financial performance is concerned, at the initial stage of reform it was slow. However, with increasing freight traffic and prices it continued to increase steadily.

Asset Management

In railway role of wagons and locomotive is very important. Understanding its dynamics gives an insight in movement of Russian railways. Privately owned wagons become more favourable among private investors. Even customers found private owned wagons, more favourable. Hence there was significant growth in privately owned wagons. Subsequently, customers were able to choose between RZD wagons at the regulated tariff price or wagon managed by a non-RZD operator at a market determined price. Since non-RZD operators were able

to provide better wagons so more customers shifted to commercial operators who were providing wagon at market prices. Due to these number of privately owned wagon increased to 9.55 lakh by 2015. Whereas, RZD owned approximately ten thousand wagons. These were primarily used for its internal transport. On the other hand there were few investors for locomotives. Due to this, RZD deployed its resources on investing in renewal of the locomotive fleet. Presently, RZD control all main line locomotives and traction services.

Ongoing Journey

The reforms in Russian railways have been much slower than originally planned when it was started. It is more active between 2000 and 2010 when speed of reform was much higher. During this period there was massive increase in rail freight traffic and its market share. There was reduction in freight rate. Hence operational productivity increased manifold. Huge investment was made for high value freight stock. However, the journey is yet to be complete and there are several issues which are yet not resolved. Locomotive market is still in government hand. Private participation is still low for up-gradation of railway infrastructure, railway technology and new railway lines. Even regulating issues, tariff reform and public service obligation is with government. Now these are future challenges for the Russian Railways to overcome the ongoing issues which are presently affecting its operation.

Railways in European Union (EU)

In this comparative analysis, the case study of EU has taken as it gives an example how Railways in different countries are trying to evolve over period time to attune itself with modern system of working in the sense of financial and performance standard. The EU which is a political and economic union of 27 member states like France, Germany, Italy, Switzerland, Sweden, Portugal, Spain etc., covering almost entire Europe was founded in 1999 and coming into full force in 2002 with an aim of free movement of people, goods and service. Prior to formation of EU, railways in various European countries were fairly or moderately developed for more than one century for both goods and passenger services. However, with the development of road transportations it was facing severe competition. To overcome ongoing economic challenges, privatization first started in British Railways after 1979 by Margaret Thatcher and almost completed by John Major. EU directive 440 of 1991 initiated deregulation of railway by inducing competition for better efficiency. By Railway Act 1993, operations of the British Railway Board were broken up and sold off. For this, various regulatory functions were transferred to newly formed Rail

Regulator. Various private companies got control of different activities. Ownership of major infrastructure including bigger stations went in the hands of rail track companies. Maintenance of track and renewal of assets were sold to various companies. Three rolling stock dealing companies got ownership of passenger trains whereas freight rail passed to two companies.

The above directives of EU also started in other countries of Europe for deregulating railways. Common feature was bifurcating operation and infrastructure operations and maintenance. Third parties were given access to the network. Competition was the hallmark in all areas. Above ambitions have been pursued for next 25 years by three other directives. Ultimately, fourth Railway package was approved which contains 'Market pillars'. From 2020 onwards national passenger services were open to "on track" competition whereas for public services "off track" contracts are planned 2023 onward.

As such Railways in the EU were not performing well since 1970. As per Pietrantonio & Pelkmans, there was steep decline of Market share of railway transport. Freight transportation has missed the market in both relative term and absolute term. Between 1990 and 2001, in overall term, there was growth in the need of freight transportation by 25 percent. Out of this road transportation captured 35 percent more, whereas for railway freight transportation there was decline for 6 percent. Overall, between 1970 and 2001, rail's market share collapsed from 21 to 7.8 percent for freight and 10 to 6 percent for passenger transport. Thus, when economy was growing rapidly, the railways were unable to meet the increased demand. During this time most of the government was incurring massive burden on public expenditure for supporting railway system. To overcome the problem of increased expenditure government planned to reduce budgetary support to the railways through reform in railways in name of improving performance. Accordingly, EU initiated, radically new framework to reduce budgetary expenditure by seeking reforms for improved performance.

Traditionally, in entire EU regions, the freight business included loose items like various types of coal, different raw materials, POL, chemicals, wooden logs, steel materials, other metals and car, heavy machinery etc. In this, other modes of transport like road, waterways and pipelines have increased competition and market share of railways reduced substantially. In the field of parcel or small volumes of traffic like deliverables, food etc., railways failed to provide flexibility and tailor made solutions as per customer demand. In passenger traffic, for long distance traffic, there was tough competition from

roadways and airways whereas short distance intercity commuter services were low value traffic.

There are certain sector related characteristics of railways which makes it as a very difficult unit of business. In railways, there is huge sunk cost for establishing track, signaling system, overhead electricity grid, stations and marshaling yard. Characteristic of passenger railways is entirely different than freight railways. In the passenger railway speed and passenger amenities are required whereas in freight railway capacity to run heavy load on lower speed along with goodshed required. In such situation one type of railway cannot be used for other type of transportation need. Even maintenance cost is much higher. Variations in different installations and different safety parameters also make it difficult for inter-operability of different railways. In such situation, one type of railway is incompatible to another type, Even coordination issue arises with one another due to differential nature. Although, for Railways, freight operation is better for resource generation, in any democratic societies passenger vote and goods don't. So, rail freight is often subject to second priority for allocation on national basis. In above situation, there are certain features which makes it very different from other infrastructure sectors like energy, telecom etc. A large economy of scale is required in railway due to high fixed cost with small variable cost. Due to this there are very few market players. Even pricing of service becomes higher than marginal cost to maintain efficiency and cost recovery. In case of mixed traffic, certain degree of cross subsidization is bound to happen as it is quite difficult to separate two services. Last but not the least, if market forces are allowed to prevail then focus would lead to closure of network where there is lower traffic.

In the above perspective EU through Directive 2001/12 issued instructions that Railway should maintain separate account for freight and passenger services. Any money expended on passenger services should be shown accordingly. Any expenditure should not be shown in wrong head, so that real picture of expenditure should come and any practice to inflate the cost is thoroughly curtailed. After developing this practice company may invest in innovative technology to reduce the cost. A well accounted system tends to perform better and provide service as per need and expenditure. These optimizing processes may help in proper capacity utilization which would benefit all final users like shipping, logistic operators, traffic aggregators and ultimately the consumers In above context, after 1991 EU made another attempt through White Paper of 2001 and White Paper of 2011 to rebalance flaws of transportation in favor of rail

transport. These initiatives were based on the concept that rail transport is better for sustainable development and it has lesser negative externalities. In comparison to road vehicles, railway causes one sixth lesser greenhouse emission. In densely populated areas, particularly in rush hours road vehicle creates much higher pollution whereas railway remains a better alternative. In certain parts of Britain, Germany, France, Italy, Spain, Belgium, Netherlands etc., particularly in urban agglomeration daily journey would not be possible without the use of trains. Even high-speed rail connecting major cities of Europe like London, Paris, Brussels, Amsterdam, Berlin, Lisbon, Athens, Cologne etc., were initially loss making, but subsequently proved to be highly successful.

Looking to this, the White Paper of 2011 set the target for EU for increasing high speed network three times by 2030. For freight transportation also goal was much higher. It was contemplated that by 2020 for all those freight transportation travelling more than 300 km, at least 30 percent should be transported by railways. This should reach to 50 percent by 2050. Consequent to these changes, freight markets are more open and competition is increasing gradually. Responses of different EU countries for these directives were different. Some countries like Sweden, Germany, Great Britain, the Netherlands were advance mover. These countries have started their changeover processes somewhere in 1990s and they got several successful response. For several other EU countries initiation happened only when EU notified its railway reform suggestions in first decade of this century. During this period some countries like Finland has seen lukewarm response in recent past, whereas Greece has failed to develop any competition. Hence, liberalization in rail freight has not come as storm. Rather, it was a slow moving process, in which some countries took a lead, whereas some lagged behind. In this whole process, competition between various market players is a key word. After opening up of freight transportation by railway a new turf was launched. Here there was condition of imperfect competition. Besides, huge entry cost, luring customer was a big challenge, as number of prospective customer was less. For customers, maintaining a sustainable return on investment was an issue. Here several companies were forced to either restructure themselves or leave the market after a few years of operation at a big cost. Huge sunk cost made such venturing a difficult proposition. In such situation, despite getting a big response initially, several companies were forced out due to lack of sustainability. Even in a leading country like Sweden, eight companies, including IKEA Rail left the market due to non-sustainability.

Thus, after 30 years of attempt of reform in railways in EU, there has been mixed response. Although several measures were initiated, the results are modest in terms of traffic growth and rail market share. In fact, the improvement in Railway's share in freight and passenger services is not as per targeted goal. Despite all attempts being made to nurture railways in new working environment, it has failed to retain market. In fact railway is gradually reducing its market share year after year irrespective of good intention of EU. Due to very high cost of modern technology and huge operating cost with little budgeting support after the prospects of railways in future remains utterly low. In the perspective of customers or consumers, market responsiveness and pricing of railway services has not been very satisfactory. In this scenario sustainable freight transportation by railways could not be visualized. Thus, one may conclude that revitalization of Railways in EU could be further possible only when coherent mix of public policies, supportive and forward looking investment plan with strong state support, regulatory reform and suitable supervision are provided.

Freight Railroad in USA

Although railroad in U.S.A has set an initial success in mineral exploration along with agriculture produce transportation and played an important role in political and economic integration, it also suffered badly due to over control by Government due to regulation of rates, services along with route operation. The famous Staggers Rail Act of 1980 provided necessary freedom in terms of rate and provision of services along with freedom to operate or close down any unremunerative services. This helped in rationalization of all assets including wagons, coaches, locomotives and track to maximise the profit. This improved the profitability and sustainability of certain efficient railroad operations. However, in present situation U.S.A. has reached to a stage when congestion in roadways is increasing badly. But no railroad company is ready to make any investment for capacity expansion due to intrinsic nature of railroad economics where very less federal support in terms of finance and other related benefits are available.

In early 1830, America's first intercity railroad for 13 miles was completed between Baltimore and Ohio. By 1850 about 9000 miles of rail tracks were functional. This facilitated transportation in far off area for minerals, timbers, agricultural products. During civil war, railroad provided critical support. For streamlining of railroad working and comprehensive federal economic regulation in 1887, the Interstate Commerce Commission (ICC) was created. Due to massive growth, railroad mileage peaked in 1916

when around 1500 railroad companies operated around 2,54,000 miles. Rail employment peaked in 1920. But soon the Great Depression devastated railroads companies. Between 1928 and 1933 rail road revenue fell by fifty percent. By 1937, thirty percent companies were in trouble. Starting of Second World War provided some reprieve to railroads in 1940s with increased need of transportation for military and war materials. End of war, however, again created a downward trend as by 1949 rail revenue fell by 28 percent with comparison to 1944 revenue. Although passenger transportation was incurring a huge loss, ICC refused to allow discontinuing. Post Second World War there was great emphasis through federal funding for government support for laying new highway connecting several state and waterways system. This led to massive growth of transportation through trucks and barges. At this time, there were huge passenger losses leading to railroads differed maintenance, service abandonments and bankruptcy.

It is believed that policies being propagated by ICC were proving to be disastrous move for most of railroad companies. The Interstate Commerce Commission laid down the lower and upper price range for freight transportation by freight transportation by rail. These were not related to cost or demand. Frequently, rates were low for food grains and bulk commodities, whereas manufactured goods were charged on higher rate. However, due to this higher rates, traffic were diverting to highways. ICC also decide to fix one rate between two points, even if one has taken a shorter route or longer route when company could have gained in shorter routes and loss in longer routes. ICC also delayed the widespread use of unit trains which is otherwise more efficient. Due to excessive regulation by ICC and intense competition from trucks and waterways, most of railroad companies were on the brink of ruin by 1970. Bankrupt railroad companies were having share of 21 percent rail mileage. Due to lack of fund, these companies resorted to deferred maintenance. Situation deteriorated so much that by 1976 railway lines were operating in totally unsafe condition. Due to lake of proper maintenance reduced speed restrictions were imposed in 47,000 miles of railway track. Number of cases of derailment also increased manifold. Although the Rail Passenger Service Act of 1970 created AMTRAK for passenger services to relieve freight railroads of huge losses in passenger, situation did not improve much. Despite these, intercity freight transportation has rapidly come down from 75 percent in 1920 to 20 percent in 1978. Return on investment by railroad companies between 1970 and 1979 remained around 2 percent with some cases up-to 2.9 percent. This has come down from 4.1

percent in 1940 to 3.7 percent in 1950 and lowest to 2.5 percent in 1960.

In such depressive condition, passing of Staggers Rail Act of 1980 came as a big relief. This regulating system provided complete freedom for doing business wherever they like, maintaining their assets and fixing rate for their services. Now Washington was not deciding everything. Rather, railroads companies got freedom to take decision for price of service, area of service and route of service. Now they can decide which route to continue and which route to abandon due to lower or unviable traffic. To attract and retain customers they were allowed to enter into confidential contracts with shippers. So now all un-remunerative lines were going to be closed until state or local bodies were ready to share the responsibility. Companies were permitted to abandon unprofitable lines unless subsidies were provided by state or local government or by specific customers. In the years, following the passage of the Staggers Rail Act, railroads sold off underperforming routes or abandoned them. U.S. rail network which was 2,54,000 miles in 1916 came down to 1,40,249 miles in 2006. a fall of 45 percent.

Understanding the development of Major Railroads in U.S.A gives an insight of dynamics of railroad economics. The Transportation Act of 1920 called upon the ICC to develop a national plan to deal with "Strong railroad - weak railroad" problem. In 1920, the New York, Chicago and St. Louis (the Nickel Plate) acquired two smaller roads. In 1938, three companies merged to form the "Gulf, Mobile and Ohio". The Transportation Act of 1940 allowed the ICC for merger on a case to case basis. Due to Second World War, merger started only in 1957 which continued till 1977. This led to major consolidation within rail industry:- (1) Norfolk and Western acquired the Virginian, the Nickel Plate and the Wabash Railroads, (2) Erie Lackawanna was formed by merger of the Erie with Delaware, Lackawanna and Western, (3) Chessie was formed with merger of the Seaboard Air Line with the Atlantic Coast Line, (4) Louisville and Nashville acquired the Monon, (5) Burlington Northern was formed by amalgamation of the Great Northern, the Northern Pacific and two other Western roads, (6) Penn Central was formed by merger of the New York Central and the Pennsylvania Railroads, (7) Illinois Central Gulf came into existence by merging Illinois Central and the Gulf Mobile and Ohio and (8) Chicago and Ohio / Baltimore and Ohio. In 1976, two mergers took place - The Penn Central, the Erie Lackawanna and five smaller railroads were formed into Conrail. Similarly, the Louisville and Nashville joined with the Chessie system to form the Family lines. By 1976, the top ten railway system accounted for 80% of class I freight revenues. These were:-

Table 1 - Major Rail Company and its Revenue

	Companies	Operating Revenue Percentage of Class I Railroad
1)	Conrail	14.8%
2)	Burlington Northern	9.00%
3)	Southern Pacific	9.2%
4)	Family Lines	8.3%
5)	Chessie System	7.6%
6)	Norfolk and Western	6.6%
7)	Union Pacific	6.6%
8)	Archison Topeka and Santa Fe	6.5%
9)	Southern Railway	5.8%
10)	Missouri Pacific	5.3%
	Total Top Ten	79.7%

In the 1980s and 1990s, further merger took place. The Union Pacific acquired Missouri Pacific, Chicago and North Western and the Southern Pacific. The Burlington and Northern merged with Frisco and the

Santa Fe. The Family Lines and Chessie system continued to form CSX. Southern Railway and Norfolk Southern merged as Norfolk Southern. By 2008, only seven Class I railroad survived as under:-

Table 2 - Major Rail Company and its Revenue

Railroads	Operating Revenue Percentage
Burlington Northern Santa Fe	29.6%
Union Pacific	29.3%
Norfolk Southern	17.4%
CSX	16.7%
Grand Trunk Corporation (Canadian)	3.9%
Kansas City Southern	1.7%
Soo Line Railroad (Canadian)	1.4%
Total	100%

It was believed that consolidation would help in economics in maintenance, higher return on investment, increased frequency over upgraded line, reduction in operating costs and train run time by using superior routes and disinvestment or abandonments by other lines. In comparison to 1980s these consolidation helped in better output by coordinated marketing, operating and investment strategies.

It is believed that situation and condition developed Stagger Act has ushered in an era of success for railroad companies. Average rail rates were 44 percent lower in 2019 than in 1991. Unlike roadways, waterways or airways, railways have been self dependent for owning, building, maintaining and paying for themselves. It also set better safety records by reducing 36 percent train accidents and level crossing collision. Railroads was environmentally better for lower green house gas emission and it is four times more efficient than roadways. Major gain was noticed in "Return on Investment". It was merely 4.4 percent in 1980s which increased to 7 percent in 1990s, 8 percent during 2000 to 2009 and 11.8 percent between 2010 and 2018.

When one evaluates growth of railroads in U.S.A. in last almost two hundred years, it was not merely deregulation but most of factors related to technology,

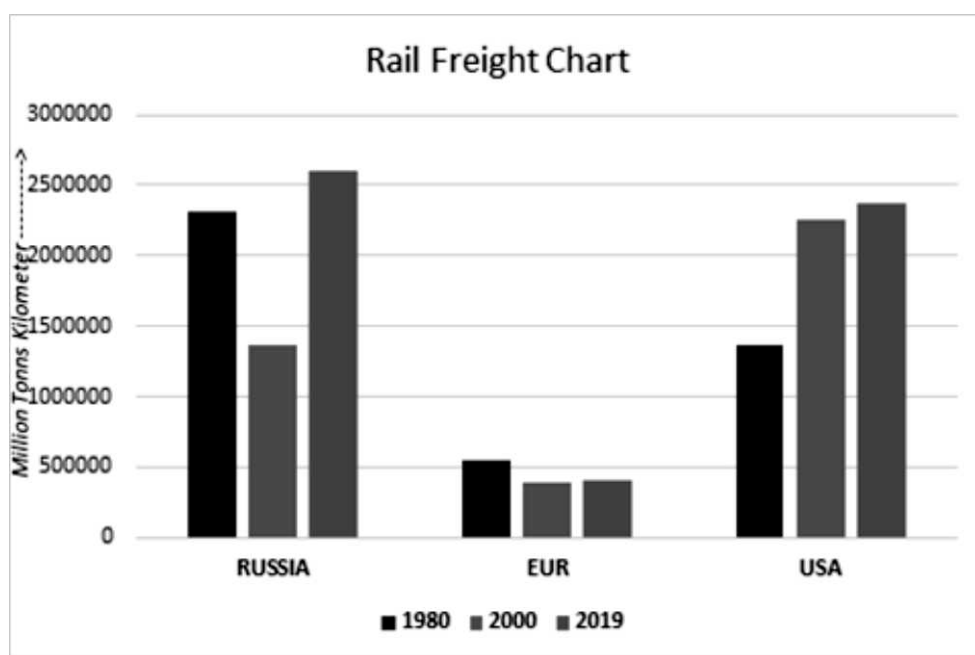
management, competition, governmental activities and policies which have helped railroads to take a shape and grow over period of time. Greatest productivity improvement in rail freight registered due to several favourable conditions. Now companies have freedom to run heavy haul unit trains. Practice of double stack container trains started. Movement of high volume of commodities moving over long distance in specialized wagon has become quiet common. Shedding unprofitable traffic or lines also helped in productivity along with reducing excess capacity in the system. However, condition that existed in 1980s does not remain same. At that time rail industry was far more concerned about over capacity than under capacity. By 1990s, the network was already rationalized for that time's need. Thus, long terms strategy of cost cutting was finally ended. Now railway again needs to invest heavily to increase capacity for current and future needs. There are several studies which forecast two to three time growth of freight traffic. But no company is ready to invest these huge sums, although when heavy congestion is being observed on several freight routes and at many locations gridlock conditions already exist. So now the challenge for U.S.A. railroad is to devise ways or means to make those investments in rail infrastructure

which would make those substantial improvements in capacity in coming future. Success of policy makers and planners would depend upon true implementation of those improvement plans.

Before this article is completed, it would be better to evaluate performance of above three railways in a comparative table where loading of three railways is given:-

Table 3: Comparative Rail Freight Loading (Million Tonnes Kilometer)

YEARS			
Country	1980	2000	2020
Russia	23,16,000	13,17,178	26,02,498
European Union	5,55,613	3,85,467	4,00,172
U.S.A.	13,60,684	22,57,583	23,64,144



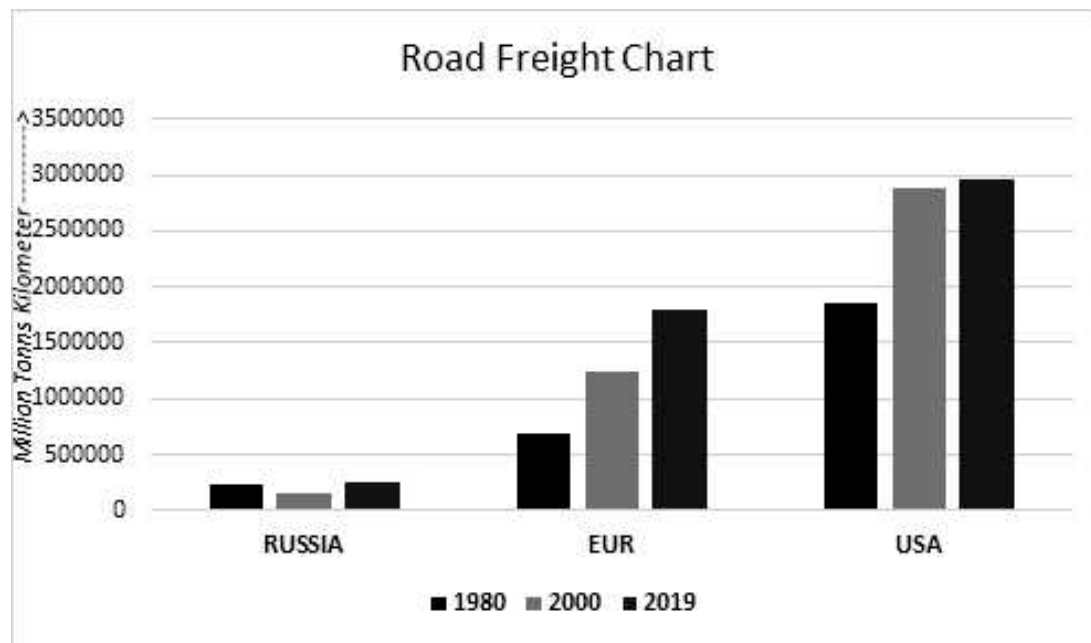
As seen in the above table, although the three countries have marked overall growth, the trajectory of improvement has neither been smooth, nor same. In Russia, there was a drop during 2000 when after disintegration; Russian Railways was trying to recover the lost grounds. By and large it succeeded somewhat, as by year 2020, it almost achieved double loading than 2000. It also surpassed what it has done in 1980. In contrast, in European Railways, there was almost thirty percent drop in freight loading between 1980 and 2000. This may be due to massive growth being marked by road sector in entire Europe. Only after consistent efforts, on the part of the EU the declining trend of rail transportation was checked and some minor improvement on freight loading was noticed in 2020. On the other hand in USA, there was

massive growth in railroads between 1980 and 2000 when almost sixty six percent growths was registered. This growth was possible due to positive environment created by the Staggers Act. However, by this time, American Railroads have reached almost on plateau, as in subsequent years, despite massive growth in economy there is not much increase in loading, as between 2000 and 2020 only around five percent growth was noticed. This situation has been created due to very restrictive growth of American Railroads as no company was ready to invest huge fund to create additional capacity either for track or rolling stock due to lower return on capital investment.

During this entire period particularly between 1980 and 2000, there has been substantial growth in road transportation as noticed in following table no. 4:-

Table 4: Road Freight Transportation (Million Tonnes Kilometer)

YEARS			
Country	1980	2000	2020
Russia	2,41,371	1,52,735	2,63,878
European Union	6,94,027	12,50,707	17,99,611
U.S.A.	18,47,721	28,77,733	29,69,468



In Russia, similar pattern is seen even in road sector where between 1980 and 2000 approximately sixty three percent drop was registered whereas between 2000 and 2020 there was growth of road transportation with approximately seventy three percent (73%). On the other hand in the EU there was massive growth in road transportation between 1980 and 2000 by almost eighty percent which further increased by forty four percent during 2000 and 2020. Even, USA marked massive growth in road transportation during 1980 and 2000 by almost fifty six percent whereas there was marginal growth during 2000 and 2020 by three percent only as even road sector has reached to plateau and due to grid lock congestion in major cities it was not possible to increase even road traffic. The above analysis clearly indicates that during 1980 and 2000 road sector there was substantial growth as it captured several new area of transportation, whereas in railways such comparable growth was not noticed. Even after 2000, the rate of growth in road transportation was higher in almost all countries whereas railways could not match with this growth. Despite several positive attempts by national government, railways could be able to create only some marginal impacts only.

In the above three cases it has been observed that although each country has dealt with changing or emerging conditions differently, there is common trend of survival of railways by adapting to latest condition. So it can be concluded that railways in different countries would continue to exist, but it could be quite different than what it is as at present

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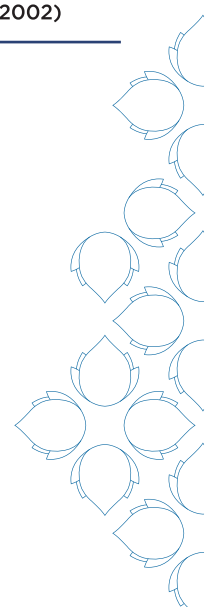
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- S.D. Desai High School (1964)
- M.S.Mistry Primary School (1987)
- V&C Patel English School (CBSE) (2008)

77
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