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SCHOOL OF MANAGEMENT

OP JINDAL UNIVERSITY

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OPJU BUSINESS REVIEW

Aims & Scope

The *OPJU Business Review is* a blind peer-reviewed Journal. The Journal deems it its mission to submit to the reader's fresh fruit of management thoughts and rich cream of current innovative research. The format of the Journal is designed reader-friendly. The academia and the corporates have easy access to the Journal.

The Journal looks for articles conceptually sound, at once methodologically rigorous. The Journal loves to deal withknowledge in management theory and practice individually and in unison. We wish our effort would bear fruit. We hope the Journal will have a long life in the shelves catering to the needs of b-students and b-faculty. Proposals for articles that demonstrate clear and bold thinking, fresh and useful ideas, accessible and jargon-free expression, and unambiguous authority are invited. The following may be noted while articles are prepared.

- What is the central message of the article you propose to write? Moreover, what is new, useful, counterintuitive, or important about your idea?
- What are the real-world implications of the proposed article? Can the central message be applied in businessestoday, and if so, how?
- Who is the audience for your article? Why should a busy manager stop and read It.
- What kind of research have you conducted to support the argument or logic in an article?
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Vice Chancellor's Message

The huge changes in business dynamics in the present scenario brought a paradigm shift in the various elements of contemporary business tools and strategies which demands industry and academic collaboration to address the emerging issues.

To acknowledge these developments and provide innovative solutions to these issues, the School of Management, OP Jindal University, Raigarh has taken the initiative of coming with the inaugural issue of their Journal OPJU-Business Review.

I hope this journal will be a unique forum for communicating innovative ideas and practical solutions to various complex problems in the corporate world. I am confident that the Journal will provide a platform for academicians, research scholars, students, and professionals to share their work which will help industry and academia to grow and compete globally.

I would like to congratulate the editorial board members of the journal of the School of Management for taking such initiative and convey my best wishes for the success of the Journal.

Dr. R. D. Patidar Vice Chancellor

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Editor's Message



The OPJU-BR provides an intellectual forum for professional and academic debate pertaining to developments in the field of business and the corporate world. It acts as an interface between the industry, academia, and society. It covers a wide range of themes cutting across several multidisciplinary topics. We intend to deal with a broad range of topics from:

General Management HR & OB Economics & Commerce Finance & Accounts Marketing Operations & Supply Chain Management

Our prime purpose is to broaden the base of knowledge of our readers by encouraging contributions from academicians, professionals, and practitioners from various parts of the world. To suffice this, we have formed an editorial advisory board comprising leading academicians, professionals, and experts of different domains from throughout the globe.

As, an editor, I would like to extend my heartfelt gratitude to all the academicians, practitioners, and professionals for their valuable contributions to the journal, I would also like to acknowledge a debt of gratitude to the publishers for their encouragement and to the management of OPJU for their constant support. I would particularly be thankful to all my team members of the School of Management who were instrumental in bringing this inaugural issue of the journal.

Dr. Saket Jeswani

Editor OPJUBR Asst. Dean & Professor, School of Management, OP Jindal University

OPJU BUSINESS REVIEW

VOLUME 1 ISSUE 1

OPJU BUSINESS REVIEW

VOLUME I

MAY 2022

ISSUE I

TABLE OF CONTENTS

1.	A comparative study on analysing the solvency of the Indian public, private and foreign sector commercial banks using modified Altman z-score	08
	Meena Rani	
2.	Globalization and 21st century higher education: innovation in managing global challenges Janardan Paudel	20
3.	Influence of brand trust, brand image and brand parity on purchase intent of product	34
	brands among its consumers	
	Nishant Singh, Bilal Mustafa Khan and Anuja Pandey	
4.	Sustainable economic development assessment and FDI: An Indian perspective	48
	Pallabi Mukherjee, Jolly Sushma, and Kalicharan Modak	
5.	Parallelism in emerging modes of work: a systematic literature review from employee	65
	perspective	
	Pallavi Pandey, Avichal Sharma, and Saket Jeswani	
6.	First impression is the last impression. How a smart cv is built?	77
	Priya Singh and Saket Jeswani	

A COMPARATIVE STUDY ON ANALYSING THE SOLVENCY OF THE INDIAN PUBLIC, PRIVATE AND FOREIGN SECTOR COMMERCIAL BANKS USING MODIFIED ALTMAN Z-SCORE

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Abstract

The financial solvency of the banks is the backbone of the economic stability of a country. Evaluating and predicting the vulnerability of banks is crucial not only for the banks' management but also considered important by the creditors, investors, depositors, government, and policymakers. This study is trying to accomplish the objective of evaluating the financial solvency of Indian commercial banks. Modified Altman Z-score developed by Edward I. Altman in 1995 calculated for the Indian commercial banks for a period from F. Y. 2016-2020. The Study comprised 77 banks covering 21 public sector, 19 private sector and 37 foreign sector banks. This study further examined the statistical independence of all the three groups taken. The findings claim that private sector banks are more solvent than public sector banks. While comparing with the foreign sector banks, both public and private sector banks having less Z-Score. However, the results supporting the previous shreds of evidence that Indian commercial banks are in the safe zone. This independent test shows that there are significant differences among all the three groups taken in the study. Further, the regression analysis outcome claims the statistically significance of each component of Altman Z-score. The originality of the study is that it covers all the Indian commercial banks. Previous studies do not find any evidence of the foreign sector banks in the Indian commercial banking system. The findings have a larger application for the managers and policymakers to prevent the adversity of bankruptcy in Indian commercial banks. Researcher can further extend this study by including the impact of the Covid-19 period, which may be compared with the prior period to check and predict the solvency of the Indian banks. Keywords: Solvency, Commercial Bank, Altman Z-Score

1. Introduction

There is not any particular definition of financial stability of an economic system as different measures have been adopted for that in previous research. One definition given by Padoa-Schioppa (2003) is that financial stability is the ability of the financial system to absorb the adverse effect of uncertainty and external shocks. Banks, among other financial intermediaries, solve the problem of uncertainty and external shocks by agglomerating and allocating the capital to the best investment opportunities and monitors the effective use of that capital (Stiglitz, 1998). Banking institutions are one of the important constituents of the financial system of any economy. Thus, solvency of banking firms matters for the economic development of the nation.

Solvency of banking institutions depends on its compliance with the regulations and meeting its expansions and growth plans (Ebiringa, 2011). Also, the bank's management obliged to give a better rate of return and growth to the investment of the shareholders (Ongore and Kusa, 2013). In India, RBI has also undertaken significant regulatory actions for maintenance of integrity and resilience of banking institutions. Financial risk imposed by the 2008 Global Financial Crisis results in failure and distress of many enormous giants globally. Thus, Banks distress measurement is one of the debatable areas. Altman Z score is one of the financial distress measures introduced by the Edward I. Altman (1968) who is a pioneer in failure prediction model using financial indicators of a company. This score is revised in 2000 and 2002 in order to make its use in different economic condition. A high accuracy makes its large applicability in research areas focusing on the companies' failures prediction (Bolat, 2017). Particularly, the use is limited to only large-sized companies listed on the stock exchange. This study is using a specified Altman Z-Score model applied in non-production companies in emerging markets as the use is also recommended in earlier studies also such as Ghosn, (2019) and Bolat (2017). The revised Altman Z-Score is used to predicting the solvency of Indian commercial banks taking five years.

In India, however, many studies had used this measure to analyse the distress in banking firms (Joshi, 2020; Motwani *et al.*, 2021; Pradhan, 2014; Sharma, 2013). These all studies were surrounded through either the public sector banks or public and private sector both, there is paucity of literature in the Indian banking that gives evidence for the overall banking sector including foreign banks also. This study has analysed the Indian public, private and foreign sector commercial banks comparatively to check the solvency in all the three categories of the banks. First objective of the study aims to check the efficiency of the Indian public, private and foreign banks using Altman Z-Score. Further, the statistical difference of the Altman Z-Score value across all the three groups of the Indian commercial banks have been analysed. Also, it aims to analyse the statistical significance of each element of Altman Z-score in the Indian commercial banks.

Thus, this study has provided an overall view of the Indian banking sector regarding the distress position and thereby helps the various stakeholders in their decision-making process. Through the comparative analysis of the distress position of the banks the results claims that the private sector banks are in better position than public and foreign sector banks in terms of solvency.

The findings would be used by the Indian financial regulators while policy-making decisions and during regulatory checking. The structure of the study firstly gives a comprehensive review of the relevant literature. Then the research methodology has been given to provide the design and analytical process of the study. The next section has provided the results and discussion which has been followed by the conclusion.

VOLUME 1 ISSUE 1

2. Review of Literature

Evaluating the financial position of banks is inevitable to make sure the growth and development of an economy. Various financial measures have been adopted in previous literature for this purpose. Capital Adequacy Ratio, liquidity, efficiency and hybrid model, like CAMELS, has been used widely in previous studies. Yet, the extensive research on evaluation of distress position needs to be explored. In this section, firstly an attempt is made to show the incentives of widely use of Altman Z-score Model in distress prediction. Then, the review of the relevant studies have been given.

While analysing the Z-Score model for a period from 2002 to 2008, it was found that the model predicting the banks failures effectively in Greece (Gerantonis *et al.*, 2009). They had claimed that this model can predict 54% of banks failure before one year of bankruptcy and the same is found by the other researchers in Greece (Christopoulos *et. al.*, 2008; Vergos *et al.*, 2006). Manaseer and Al-Oshaibat (2018) also found the high predictive power of Altman Z-Score in their study of insurance companies listed in Amman Stock Exchange during a period of 2011-2016.

Further, Altman *et al.* (2017) claims that the use of the general Altman Z-score model performs very well in most of the countries. They found the prediction accuracy 0.75 approximately while classification accuracy which was above 0.90 approximately can be further improved by adding some country specific variables. Thus the widely used Altman Z-score is an efficient distress measurement tools has incentivise its adoption to provide further evidences.

Previous studies evaluating the solvency position of banks have come out with different findings. A study of 23 banks in Kazakhastan (Bolat, 2017) which analysed the stability using Altman Z-score and Bankometer model for a period of five years found that banks insolvency risk is between the range of 4.3% to 8.7%. While the Bankometer model does not show any distress in those banks. Empirical study made by the Idree (2021) found that among the Mangolian banks, 12 banks are in 'healthy condition during first three years of the study. For the next two years, the 11 banks are in 'Safe Zone' while the average score for all the banks was found 3.71 in the last year. Study suggest that lower scoring banks need to improve their managerial efficiency.

Using the annual financial statement of 29 Indonesian banks that had gone public, Khaddafi *et al.* (2017), had found that 14 banks out of all the banks taken were in a state of bankruptcy for the 3 years of study period. In another study of Ouma and Kirori (2019) found the opposite results. They claimed that in Kenyan commercial banks system, both small and medium sized banks are financially stable throughout the study period. Qamruzzaman (2014) had found the dissimilarities in the finding of Bankometer-S score and Altman Z-score results in Bangladesh private commercial banks during 2008-2012.

Further, there are many Indian studies which have studied the financial status of the Indian private and public sector commercial banks found the mixed evidences of financial position. Nandi and Chaudhary (2011) had developed an equation to predict the future bankruptcy of Indian banks using Altman Z-score. In another study by Chotalia (2012), found that the financial health of the Indian private sector banks during the period of 2007-2012 is solvent as they fall in 'Safe Zone'. Also, reported the possibility of financial distress among some of those banks. The findings of Sharma (2013) had concluded that only two banks were close to distress position among the Indian public and private sector banks. Tandon *et al.* (2015), had found the same results in 5 public and 5 private sector commercial banks in India.

Thus, the scenario of Indian banks is stable as other studies also showed in their research (Pardhan, 2014; Joshi, 2020; Motwani *et al.*, 2021). However, there is gap in this area regarding the inclusion of foreign sector banks also need to be explored. This study is trying to bridge this gap by examining the Alman Z-score in the public, private and the foreign sector commercial banks in Indian banking system.

3. Research Methodology

3.1 Data and Sample

The study has based on the secondary data of the Indian commercial banks and used the Prowess Database of CMIE and RBI Database of Indian Economy as source of data. The five-year study period has been taken from the financial year 2016 to 2020. Study has comprised the data of a total no. of 77 banks that includes the 21 public sector banks, 19 private sector banks and 37 foreign sector banks.

3.2 Model and Tools used in the study

Modified Altman Z-score model developed in 1995 applies to the emerging market has been used to examine the solvency of the Indian commercial banks. The study is descriptive as well as empirical in nature. The statistical tools used for the evaluation of the data is Kruskal-Wallis Test which has been performed after checking the normality and similar variance assumptions. To examine the significance of each element of Alman Z-score, Multiple Linear Regression has been performed using the Stata 14 analytical software.

3.3 Data Description

Modified Altman Z-score comprising the following formula:

$Z\text{-}score = 3.25 + 6.56(X_1) + 3.26(X_2) + 6.72(X_3) + 1.05(X_4)$

This score comprising the four financial elements, the description of these is given in the Table 1.

Elements	Description	Interpretation	
\mathbf{X}_1	Ratio of Working Capital to Total Assets	Showing the ability of a firm to meet its	
		short-term liabilities	
X_2	Ratio of Retained Earnings to Total Assets	A higher ratio depicts the lower	
		dependence on debt capital	
X ₃	Return (EBIT) to Total Assets	Indicating the operating efficiency of the	
		firm	
X_4	Market value of Equity or book value of	Indicating the long-term solvency of	
	Equity/Total Liabilities	company	

Expected or cut-off value of Z-score

- If, Z-score<1.1 (Distress zone, high probability of banks' bankruptcy); 1.1<Z-score<2.6 (Grey zone, probability of distress is not high);
- Z-score>2.6 (Green zone, probability of distress is very less)

4. Results and Evaluations

4.1 Descriptive Outcomes and observations

Descriptive results have been presented in the Table II, showing the value of Z-score for three groups of the Banks corresponding to the year. From the table it could be clearly visible except the public sector banks, all other groups were in safe zone for all the five years taken in the study. Further, in public sector banks, year of 2016 and 2017 are safer in terms of solvency than 2018-2020. The negative values in these three years have shown the instability and close to insolvency position in public sector banks. The financial situation of foreign sector banks is solvent across the study period, although in the year of 2018, the value of Z score is less in comparison to other years. While the private banks are in safe position throughout the study as per the value of Z-score.

In Table III and Table IV value of Altman Z-score has been shown for individual banks. As the table has shown that the value of Z-score are less in public sector banks in comparison of private sector and foreign sector banks. While calculating the value it has been observed that the Return on Assets (ROA) is the main reason for the low Z-score value or indicating the high chances of distress among most of the public sector banks. The results also states that Panjab and Sind Bank, Bank of India and Canara Bank are in grey area while only 5 banks are in healthy position.

Banks/Years	2016	2017	2018	2019	2020	Average
All Banks	7.920	7.484	2.476	3.031	7.262	5.634
Private Sector	10.151	11.001	8.871	7.046	7.429	8.899
Public Sector	2.288	2.934	-3.961	-6.500	-0.750	-1.198
Foreign Sector	11.334	8.535	2.537	8.567	15.114	9.217

Table II: Altman Z-score among banks across the study period

For private sector Banks, the results are in favour of the heathy position and the value of Z-score is above the cut-off score limit of 2.6. Where HDFC Bank has the highest score with a value of 15.77 which is followed by IndusInd Bank LTD, Kotak Mahindra Bank LTD, DCB Bank Ltd, Nainital Bank LTD and RBL Bank LTD.

Public Sector Bank	Z-score	Private Sector Banks	Z-score
Allahabad Bank	-7.257	Axis Bank Ltd.	8.888
Andhra Bank	-0.032	City Union Bank Ltd.	2.673
Bank Of Baroda	3.230	DCB Bank Ltd.	10.533
Bank Of India	2.291	The Dhanalakshmi Bank Ltd.	3.949
Bank Of Maharashtra	-1.897	Federal Bank Ltd.	9.754
Canara Bank	2.107	HDFC Bank Ltd.	15.774
Central Bank of India	-2.419	ICICI Bank Ltd.	9.527
Corporation Bank	-4.354	IDFC Bank Ltd.	3.357
Dena Bank	-8.163	IndusInd Bank Ltd.	14.877
IDBI Bank Limited	-8.648	Karnataka Bank Ltd.	9.349
Indian Bank	6.343	Karur Vysya Bank Ltd.	8.998
Indian Overseas Bank	-7.825	Kotak Mahindra Bank Ltd.	13.623
Oriental Bank of Commerce	-0.965	Lakshmi Vilas Bank Ltd.	2.713
Punjab And Sind Bank	1.855	Nainital Bank Ltd.	11.326
Punjab National Bank	-0.393	RBL Bank Ltd.	11.758
State Bank of India	5.886	South Indian Bank Ltd.	8.534
Syndicate Bank	-1.164	Tamilnad Mercantile Bank Ltd.	9.846
UCO Bank	-5.058	Yes Bank Ltd.	4.707
Union Bank of India	3.089		

Table III: Z-score Values of the Indian Public, Private Sector Commercial Bank

Foreign Sector Banks	Z score	Foreign Sector Banks	Z score
A B Bank Ltd.	29.049	Industrial & Commercial Bank of	19.003
		China Ltd.	
Abu Dhabi Commercial Bank Ltd.	-2.490	Industrial Bank of Korea	24.706
American Express Banking	3.669	J.P. Morgan Chase Bank, National	-40.908
Corpn.		Association	
Australia & New Zealand	8.646	J S C Ltb Bank	18.511
Banking Group Ltd.			
Bank Of America N A	19.214	Krung Thai Bank Public Co. Ltd.	18.186
Bank Of Bahrain & Kuwait Bsc	6.947	Mizuho Bank Ltd.	13.067
Bank Of Ceylon	24.501	National Australia Bank Ltd.	4.615
Bank Of Nova Scotia	0.000	Pt Bank Maybank Indonesia T B K	-4.074
Barclays Bank Plc	12.162	S B E R Bank	30.676
Citibank N A	20.188	S B M Bank (India) Ltd.	-22.360
Cooperative Rabobank U A	-6.554	Shinhan Bank	10.916
Credit Agricole Corporate &	1.591	Societe Generale	6.397
Invst. Bank			
Credit Suisse AG (Mumbai)	10.736	Sonali Bank	15.940
D B S Bank India Ltd. (Take any	2.814	Standard Chartered Bank - India	13.381
one)		Branches	
D B S Bank Ltd.	12.657	Sumitomo Mitsui Banking Corpn.	13.525
Deutsche Bank A G	6.342	United Overseas Bank - Mumbai	11.339
		Branch	
Doha Bank Q S C	-2.090	Westpac Banking Corpn.	13.623
Firstrand Bank Ltd.	13.770	Woori Bank	12.443
Hongkong & Shanghai Banking	12.437		
Corpn. Ltd.			

Table IV: Z-score Values of Indian Foreign Sector Commercial Bank

Table V has depicted the results for the summary of Z-score among Indian Commercial banks. The mean Z-score in public sector banks i.e., -1.198 is less than the private (8.884) and foreign sector banks (8.989). The value of standard deviation is higher among foreign sector banks gives a second place to public sector and private sector banks having the least.

OPJU BUSINESS REVIEW

Banks	Mean	Std. Dev.
Public	-1.198	4.640
Private	8.884	3.903
Foreign	8.989	13.388

Table V: Summary of Z-score among Indian commercial banks

4.2 Results for Statistical difference of Z-score among Indian Commercial banks

Further, to check the statistical difference among the three groups of the banks taken in the study, assumption of normality of the data is checked. Levene's test is one of the tests to check the homogeneity of variance of the groups. The results of the Levene's Test has claimed that variance of the groups are not equal and have a degree of freedom of value 2. And value of F-statistics is 0.001 showing the unequal variance distribution among the banks. Also, the condition of equality of means when checked by the Kolmogorov-Smirnov test using a pair at one time, has also violated. Thus, the data has not followed in the category of parametric and need has arises to check the distribution using a non-parametric test.

For checking the statistical distribution, Kruskal-Wallis test, a non-parametric test has performed. Before performing the Kruskal-Wallis test, a three box-plots graph (1) has been presented that showing the distribution of Z-score among three groups of the Indian commercial banks.



Graph 1: Box-plot Distribution among Indian Commercial Banks

From the Graph 1, it has concluded that Z-score of foreign sector banks (3) is higher than the private (2) and public (1) sector banks. Whereas variance distribution between public sector group and private sector group is similar in comparison to third group.

Table VI: Kruskal-Wallis equality-of- population Rank test				
Banks	Observation	Rank Sum		
Public Sector	21	374.00		
Private Sector	19	866.00		
Foreign Sector	37	1763.00		
Chi-squared=26.013; p-value= 0.0001				

The results of non-parametric test have been shown in Table VI and claimed that there is significant statistical distribution among the three categories of Indian commercial banks. Having a value of chi-square of 26.013 the null hypothesis of the test that aims to check whether the groups have equal statistical distribution was neglected.

These results are similar to the earlier finding of the Indian studies such as Joshi (2020) and Motwani *et al.* (2021). Also, the ranks provided by the results are more in foreign sector banks than the rest of the groups. While comparing the private and public sector banks, the rank score is more in case of the private banks.

4.3 Regression results

Further, to check the significance of each element of Alman Z-score, Multiple Linear Regression analysis has performed for which the output has shown below in the Table VII. After deleting 32 observations, results have depicted a 0.988 value of R-sq. with a significant chi-square. From this results, it has concluded that each independent variable has a statistically significant effect of the financial position of the banks i.e., Altman Z-score. The coefficient value is highest in case of the capital to total assets with a positive and significant value of 7.267. While the coefficient value i.e., 2.587 is the lowest in case of retained earnings to total assets. However, the coefficient values for NCW/TA and ROA are found similar in both cases. These results are different to the earlier studies as the value of ROA coefficient is more and RE/TA is less in comparison to other studies in this area in the Indian banking sector (Joshi, 2020).

Z-score	Coefficient	Std. Error	P-value
NWC/TA	6.958	0.146	0.000^{***}
RE/TA	2.587	0.9666	0.000^{***}
ROA	6.722	0.005	0.000^{***}
CAP/TA	7.267	0.249	0.000^{***}
Cons.	3.444	0.0285	0.000^{***}

Table VII: Output of the Multiple Linear Regression Analysis

Thus, the first part of the paper has examined the Altman Z-score in three groups of Indian banking sector. Then, the second objective of the study has fulfilled by checking the statistical distribution of Altman Z-score in the Indian commercial banks. From the above observations and statistical test, it has been cleared that among all the categories the private sector banks are in safe zone than other categories. And the results gives a slightly different findings what has been earlier shown by (Marulkar and Faniband, 2017) In this scenario it is very likely to be given more preferences to safer banks by customer while transacting with the banks.

5. Conclusive remarks

Evaluating the financial position and checking the ability of facing the financial risk of the banks is an utmost requirement for the solvency of any market and development of the economy. This paper has contributed toward this motive by examining the Altman Z-score among Indian Public, private and foreign sector banks in the Indian commercial banking system. Taking a data of total 77 Indian commercial banks this study has found interesting outcomes and concluded that private sector banks were more financially solvent in comparison to foreign and public sector banks. The statistical difference among these three groups has also shown by the results. Study has further checked the significance of each component and concluded that the results are statistically significant for each components of Altman Z-score. Study has the implications for regulatory bodies and investors to making decisions regarding the policies and investments. As study has claimed that public sector banks were followed in risk category than other groups the government and regulatory bodies are required to frame policies to improve the position of these banks. Study can be further extended by taking a larger period of the study and other measures of solvency could also be examined to provide more evidences in this area.

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GLOBALIZATION AND 21ST CENTURY HIGHER EDUCATION: INNOVATION IN MANAGING GLOBAL CHALLENGES

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Abstract

Today globalization has affected different aspects of human life. If someone has to do any activity, it is necessary to think of globalization and its dimensions such as neoliberalism, technology, social changes and global challenges caused by globalization. Moreover, this twenty first century is governed by technology and education is also being related to e-governance which needs to use high level of internet connected modern technology. So, the purpose of this study is to analyse twenty first century education in the era of globalization and what innovations are being made to manage global challenges. Qualitative research design was adopted for narrative inquiry following interpretive paradigm. This study found out that people of this twenty first century era of globalization are not free to do things by themselves. The people are under the grip of unseen global forces looking at them from distant places. So, new innovations are being made to tackle the novel types of global challenges. The implication of this study underline that are new technologies applied in education and traditional systems of education such as classroom education systems are being replaced by digital and online education. Education is not only for reading and writing but it is for skills and knowledge to face global challenges of job markets for earning livelihood needed for sustainable development. Furthermore, its implications are that globalization and technology along with neoliberalism have continuously putting forces on social change and so is education sector.

Key Words: Globalization, Neoliberalism, Technology, Innovation in Education, Sustainable Development and Social Change.

1. Introduction

In the past, let us say before 1990s, education was easier than that of today. It was because people did not have to move from place to place and education was to give identity to people as learned people. They would do own work of teaching, farming or business at their own locality. But now life style has been more complex due to globalization and freedom of movement. Regarding such type of situation, United Nations Educational, Scientific and Cultural Organizations [UNESCO] (2015) has mentioned, "What education do we need for the 21st century? What is the purpose of education? How should learning be organized?

The world is changing- education must also change. Societies everywhere are undergoing deep transformation" (p. 3)." As mentioned by UNESCO, the model of this research study is also fixed same. This is a matter of great importance to find out the type of education people need today and what process is to be followed to obtain it. Similarly, there are global changes of societal changes and education model needs to be designed accordingly.

Furthermore, regarding present challenges, Abod- Her (2013) has stated that people need skills and competencies achieved through education so that universities are considered to develop societies with highly trained manpower; but for the process of social progress and economic growth, university education sector is facing extraordinary challenges at the beginning of 21st century (p. 14). It is to mention that as a result of societal changes, universities have to change their terms and condition accordingly. Moreover, globalization has forced to make similarity in higher education along with the use of modern technology.

Similarly, Paudel (2021) has also pointed out, "Development of technology, media and the internet, has made it easy for the flow of issues, make collaboration and come to the solution of problems. This situation has also directed higher education to make more homogenized in response to globalization" (p. 2). In addition, the main problem of today's higher education sector is how to make it homogenized with respect to the global trends of developed countries; this issue is main challenge of 21st century higher education.

In addition, privatization has forced to change the model of higher education with innovative model to manage global challenges. About such type of situation, Lichy and Enstram (2015) have mentioned that it is necessary to make efforts of business model innovation of higher education to improve the learning experience of the students and make it relevant to the dynamic environment of the 21st century (p. 119). Also, for innovation of higher education management, both internal and external resources need to be used for the enhancement of multi-sided business model. Moreover, today business model of higher education is going to be changed from traditional physical model to the present digital online model. Actually, this situation has created global challenges and innovation is needed to manage such type of global challenges.

Because of the increasing trends of globalization, there are many problems and challenges concerned with higher education institutions and universities across the globe. Regarding global context of learning UNESCO (2015) has mentioned paradoxes with intensification of economic globalization to reduce global poverty; also there is low employment growth and rise in the rate of youth unemployment; economic globalization has widened inequalities between and within countries; educational systems have contributed to these inequalities by ignoring the educational needs of students (p. 15). As mentioned by UNESCO there are gaps between needs of students and applied systems in higher education.

More importantly, the problem statement of this study is "What model of innovative education do we need to manage 21st century global challenges?" Furthermore, educational systems, as brought into practice today, have reproduced inequalities. Another essential point is how equality among people is obtained through higher education. Moreover, higher education today is not for employment to many learners, because of their low socio-economic status, which need to be addressed.

The purpose of this study is to analyse globalization and 21st century higher education. More specifically the objectives of this study are: (1) to apply innovative policies in higher education (2) to manage global challenges through higher education and (3) to find major impact of globalization in higher education sector. The research questions of this study are: (1) How should higher education be managed for the learners of 21st century? (2) Why is it necessary to develop innovative learning model in higher education today? and (3) What are some of the impacts of globalization in higher education sector? This study has got great significance to develop higher education systems at present for 21st century learners. This study has focused on innovative learning process with the use of learning technologies related to global job markets. In other words, students, teachers and policy makers will be aware of the needs of skills to be cultivated in the learners rather than only study on surface level. This study follows qualitative method with design of narrative inquiry. The data are collected through open-ended interview and document analysis. The participants are professors and policy makers involved in higher education sector, in universities. The area of the study is Kathmandu, Nepal.

2. Literature Review

The review of related literature is made on the themes globalization, higher education for 21st century learners, neoliberalism, technology and theoretical background. The review made in this study is as follows:

2.1 Globalization

Today it is a kind of discourse among people that people are living in an era of globalization. Furthermore, it is necessary to what globalization is. The clear answer is found from Knight and De Wit (1999), "Globalization is described as flow of technology, economy, knowledge, people, values and ideas across borders, as it affects each country in a different way due to nation's individual history, traditions, cultures and priorities" (as cited in Mishra, 2013, p. 9). Furthermore, globalization is combination of different kinds of processes, systems and items. Also it has made flow of everything across borders of different countries. Similarly, Ritzer (2010) has also mentioned for globalization. "Globalization is a transplanetary process or set of processes involving increasing liquidity and the growing multi- directional flows of people, objects, places and information, as well as the structures they encounter to the barriers, or expedite, those flows".

In his writing, Ritzer has also supported to the processes of the flow of people and ideas which involve modern technologies, too. This makes known that every activity is open now but not hidden.

2.2 Internationalization and Globalization of Higher Education

Globalization has produced the situation that educational policies of a country are not under the control of the nation state. The universities of a country have to face global challenges and they are going to the trends of internalization of higher education. Regarding this situation, Sidhu (2011) has stated, "The processes of internalization and globalization have become salient features of the contemporary world, particularly in the economic sector, scientific and technological competition, communication media or tourism." (p. 11). Also these two processes are going together to run the present higher education. Looking more closely at these two systems, Sidhu (2011) has stated, "Internationalization of higher education is seen as one of the way a country responds to the impact of globalization, yet at the same time respects the individuality of the nation" (p. 12). It means that there is impact of globalization in higher education sector and the process of internationalization of higher education shows response to globalization. Similarly, Knight (1993) has described internationalization of higher education as the process of integrating an international / intercultural dimension into teaching, research and service functions of the institution (as cited in Sidhu, 2011, p. 13). In addition, because of globalization, there is mobility of students in selected colleges and universities all over the world which has expanded internationalization of higher education.

2.3 Challenges of 21st Century Higher Education

Due to emerging trends of present civilization due to globalization and development of technology, higher education is not free from challenges.

Access and Equity. Regarding challenges in higher education, Agarwal (2010) has mentioned, "Issues of access and equity are central to the higher education debates in countries around the world. The expansion of higher education and growing private share had obvious impact upon access and equity" (p. 39). At the present time, due to global flow of students in foreign universities and colleges, enrollment of students seems to have been increased. But the expansion of colleges has not supported to the skills needed for employment in global job market. Moreover, the disadvantaged and vulnerable group of people is still deprived of higher education. Furthermore, this situation has created inequality among people in societies and communities. This situation shows problems in equity in nation states for inhabitants.

Quality Assurance. Furthermore, Khanna (2012) has mentioned quality assurance as a challenge for 21st century higher education and has written that internationalization of higher education has raised the issue of quality assurance which also has been the buzz word of this knowledge driven society (pp. 251- 253). In general term, quality assurance is known as main challenge in 21st century higher education. In other words,

the employers do not accept people for work according to their certificates but they require skills. So, innovation in higher education is needed to manage global challenges of societal changes. Regarding this situation in Nepalese higher education sector, University Grants Commission has stated that although the want of people for higher education is increasing rapidly, the enrollment rate of students has grown and the number of higher education providing institutions is increasing, this expansion has not been well managed till now (p.3). Similarly, this situation is known as a global problem. Furthermore, the lack of management in higher education institutions has affected in the quality desired by the learners of 21st century. So, for quality education, innovation in managing global challenges and establishing world class universities have been in urgent need today.

Furthermore, regarding quality assurance, University Grants Commission [UGC] (2018) has stated, "Quality assurance is the activity of providing evidence needed to establish quality in work and the activities that require good quality are being performed effectively to provide confidence and satisfy the requirements for quality" (p. 40). Similarly, it needs to be followed that quality in education will be proved by the rate of students' employment after they have completed the degree. The quality of education of a programme in a university will be thought to be agreeable when a learner can transform enhanced knowledge with an acceptable level of professional development to compete with others in the global markets.

Globalization and Privatization. Today, globalization has made everything changed. What situation people saw and experienced thirty years ago, now cannot be evaluated them as the same of that time. Many activities have changed after the changes occurred in 1990s, since the collapse of Soviet Communism, and the world entered the global era. Regarding such type of situation, Ritzer (2010) has pointed out, "Globalization is increasingly omnipresent" (p.2). Albrow (1996) has remarked, "We are living in a- or even the global age (as cited in Ritzer, 2010, p. 2). Similarly, Bauman (2003) has pointed out, "Globalization is very clearly a very important change: it can even be argued that it is the most important change in human history (as cited in Ritzer 2010, p. 2). Furthermore, Furthermore, Ritzer (2010) has argued, "This is reflected in many domains, but particularly in social relationships and social structures, especially those that are widely dispersed geographically" (p. 2). As depicted here, the changes are that previously government owned institutions have gone for privatization. It means that government in a country tries to take less financial burden of educational institutions. Due to this reasons there are many more private colleges in a country than government funded colleges. Universities have been grown as in affiliating nature.

Furthermore, Ritzer (2010) has acknowledged that INGOs have arisen as part of globalization; but when neoliberalism spread around the world, it has become integral part of economic and political globalization and made the functions once handled by the nation-state scaled back or eliminated (p.166).

As mentioned here, this is nature as well as characteristic feature of globalization, which has promoted privatization. On the other hand, regarding privatization of education, UNESCO (2015) has focused on the impacts of privatization by writing that it can have positive effect on some groups of people as it increases learning opportunities but it can also have negative effects on some other social groups because it produces insufficient or inadequate monitoring or regulation (p.73). In this way, privatization may be a challenge for the present world because it prioritizes survival of the fittest.

2.4 Technology and Innovation in Higher Education

At the present era of globalization, higher education is not believed for only the activity of talking; but it needs to have some real functions. On the other hand, delivery of education needs to have made evidence based by the use of technology today. Because of globalization, people are aware of global trends and higher education is in transition from elite to mass education and it is the most important feature of 21st century higher education. Regarding the situation of 21st century higher education, The Economist (2005a) has claimed that with growing student mobility and increasing demand of highly skilled workforce in global labour market, higher education has grown international so that there is high level of intense competition in higher education (as cited in Agarwal (2010, p. 26). Based on the ideas of The Economist, the skills needed for global competition for employment can be taken as global challenges and there is need of innovative management to face the challenges of 21st century higher education. Furthermore, Agarwal (2010) has pointed out that higher education provides skills to the people needed for competition to discharge technical and economic roles and these roles obviously depend on the nature of country's economy and the use of technology in it (p. 27). Undoubtedly, innovation in managing global challenges is based on technology to be used today. Higher education has to provide the learners with high skills by the use of innovative technology so that learners can have capacity to compete in the global job market. Regarding present need of innovation, Agarwal (2010) has stated that information technology (IT) has accelerated the process of globalization and consequently the entire society is abruptly transforming into something new and unexpected; as a result, social system is vibrated due to the system of globalization, knowledge economy and IT explosion (p. 270). So, as a process, to keep global challenges in equilibrium, innovation in management of higher education is needed to keep up with the globalization process of 21st century.

3. Theoretical Perspective

In general term, a theoretical perspective denotes how the world is viewed and adjacent functions performed. A view of theory keeps a research person in a right direction. Regarding theory Sekaram (1992) has mentioned that theoretical framework is the foundation on which the entire thesis (a research work) is based through interviews, observations and literature survey (as cited in Wolff and Pant (2000, p. 17). Regarding present theme of this study, the theoretical framework of this study is termed as "Social Change Theory". It is because people and societies have changed drastically due to modern technology.

Regarding this situation, Kofman and Youngs (2007) have pointed out "Two of the central dimensions of diverse processes of globalization are technology and social change. These have presented significant challenges and have also reflected substantive development related to economy and political affiliation" (p. 8). Based on the ideas of Kofmanand Youngs the theoretical perspective of this research study is 'social change theory' along with modern technology.

4. Methodology

This is qualitative research as Creswell and Creswell (2018) have mentioned "It uses words rather than numbers". This research study covers human problems and data are collected from participants in naturalistic way using interview and document analysis and data are analysed in holistic form. The data are interpreted and described in words and sentences along with verification. Analysis is made thematically. This study follows constructivism world view following interpretive paradigm. This is a narrative research study. The participants of this study are professors and policy makers of higher education in Nepal. There were fifteen participants selected for this study for sampling and collect the data.

5. Analysis and Discussion

The analysis and discussion are made here descriptively using thick language in words and sentences. There are no any numerical data in this study. Also, the analysis and discussion are carried out research question- wise. In this context, the first research question of this study is, "How higher education should be managed for the learners of 21st century? The participants, who are professors and policy makers in Nepal have conveyed their views effectively on the themes as follows:

5.1 Flexibility in Higher Education

Regarding the management of higher education, a policymaker showed his responses as follows: There is no more access to higher education for all people at present. The learners of 21st century need flexible type of study as they do work and study side by side. For this purpose, distance education and open learning systems are in need. Education should be managed for knowledge and skill by applying multiple channels in higher education.

The view of the policy maker seems to be the reasonable way to meet the challenges faced in higher education sector. There are global effects on higher education sector. Although there are many rich people in Nepal, they have developed by hook and crook system so that their economic growth has not added to the economic development of the country. Regarding this situation, Joshi (2018) has claimed, "Nepal would not be able to fulfill people's aspirations for prosperity by perpetuating the status quo scenario of economic growth because Nepal is not only the second poorest country in Asia but it is also growing slower than others" (p. 13). Mainly, higher education is for economic growth of a country. Similarly, to follow the track of economic growth, higher education has to follow flexibility in education systems. Also, the use of multiple channels means the use of technology in higher education in comparison to traditional system of education. Moreover, higher education management needs to have made for distance and online mode of education.

5.2 Modification in Higher Education Management

Furthermore, regarding management of education for the learners of 21stcentury, a professor has shown his view as follows:

Management for quality education is a must for the learners of 21st century. Particularly, technical and professional education are to be applied for the learners today. Similarly, policies should make commitment to modify present higher education system to improve competency among the learners to get employment globally.

As mentioned above by a professor, good management is in need to manage higher education system at present. In the past only theoretical system of education was in practice but now the world population needs novelty and innovation, new methods, idea or introduction of new things. Regarding such type of situation in Nepalese higher education, Joshi (2018) has written that the centralized curriculum and examinations have restricted the role of the faculty and campuses to delivery of programmes following the prescribed textbooks leaving no space for them to innovate for better meeting the demand of the work place (p. 21). In this way. Innovation in management needs to transform higher education for job oriented with skills and knowledge. So, the views of both groups of participants have focused on social change theory. Furthermore, education should be related to the needs of society. Society is in transformation phase from theoretical aspects to technological mode of lifestyle. Similarly, higher education needs to be taken care according to changes occurred in society.

Similarly, the second research question for this study is "Why is it necessary to develop innovative learning model in higher education today?" Regarding this question, the respondents have given their response on the themes as follows:

5.3 Innovation in Higher Education

Innovative learning model in higher education is needed because education should be for productive purpose. Higher education should have excellent setting of quality for market. For this purpose, universities should come ahead for ranking in the globalized context. Moreover, universities should be free from political grip (A Professor).

As shown above, higher education should be for economic development, social advancement and job opportunity; these are the characteristics of productive higher education, which also support for social change. Similarly, globalization is thought to be economic globalization. With respect to this situation, UNESCO (2015) has stated that humanity has entered a new phase in its history with increasingly rapid developments in science and technology to have sustainable way of higher education; and making this possible should be the fundamental purpose of education and learning in the twenty first century (p. 84). As mentioned here, human beings are in dynamic mode of lifestyle due to the use of science and technology. It means that any work needs to be productive so that higher education is for sustainable development of people. Furthermore, management in higher education should be related to economic growth of both people and the state.

5.4 Characteristics of Higher Education Model

Similarly, a policy maker said:

Higher education should be managed for the provision of accessibility, affordability and excellence (A Policy Maker).

The policy maker's view is towards privatization of higher education as found at present. In fact, private education is very costly and the majority of poor people are out of the access of higher education. Furthermore, the learners of higher education should be excellent in skill for job opportunities. Mishra (2013) has mentioned that globalization has enhanced economic interdependence, increased cultural influence, rapid advances of information technology, and novel governance and geopolitical challenges; the traditional contributors of economic development and economic power such as material resources and production capabilities have been replaced by knowledge and information resulting in knowledge economy (p. 8). Although globalization has promoted to privatization and it has also contributed to the development of knowledge, it has not been accessible to common population of the world, which needs to have been managed.

OPJU BUSINESS REVIEW

VOLUME 1 ISSUE 1

5.5 Impacts of Globalization in Higher Education

Furthermore, the third research question of this study is "What are some of the impacts of globalization in higher education sector"? Regarding this question, the responses are as follows:

Impacts of globalization are access to knowledge and information as well as openness of higher education policies, multi university concepts, wider public involvement, expansion of higher education through private institutions, narrow social justice and use of ICT in higher education. (Policy Maker)

As mentioned here, most significant impact of globalization is that of openness. Every policy is open these days and nothing is hidden. This situation has made higher education of higher or lower rank. Because of privatization and ICT, wider public participation is found in higher education and this needs more effective management than that in the past. Regarding this situation, UNESCO (2015) has pointed out that there are issues in formation of policies in higher education in this complex world and greater attention is to be paid in education policy to knowledge (p. 83). So openness model of globalization has forced to create new innovative policies in universities and their colleges.

In fact, globalization has made Nepalese higher education weaker in the global scenario. It has made educational policies as engines to deliver quality education and focused on the needs of multidisciplinary courses along with independent education systems for generation of competition.

In the case of Nepal, globalization has, in fact, made higher education behind other developed countries. Recently, globalization has forced to commence higher education through online mode and students have to get the opportunities to select courses according to their needs and interests. Also, education systems need to have made free and autonomous to face competition in global trends. To verify modern education, Long (2001) has written that development is dependent on the transfer of technology as well as international capital in promoting change and social construction of society according to societal changes (169). In this way, every aspect of this study supports to social change due to advancement of human civilization. Also, new social construction needs new type of innovation in managing higher education.

6. Findings

The findings of this study are based on the discussion and analysis as mentioned above. From the above analysis and discussion, the findings of this study are relevant to the present 21^{st} century people and societies. The findings obtained from the first research question is that the learners of this 21^{st} century need flexible type of education rather than rigid management of traditional systems. It is found that online education with distance mode is in demand for the learners of 21^{st} century.

Regarding this concept, Government of Nepal (2019) has focused on changes in curriculum to make it relevant in global trends, changes in general higher education institutions into technical institutions, competency-based education, use of technology for open and distance education as well as for the establishment of innovation centers (pp.-25- 39). These ideas prove that higher education needs to be changed according to social changes and learners' needs. Moreover, technical and professional educational systems are on demand.

Similarly, the findings from the second research question of this study are that innovative learning systems in higher education and productivity in higher education is counted. Similarly, learners need excellent quality of higher education based on global trends. More importantly, accessibility, affordability and excellence are the main activities to be managed in higher education sector. Likewise, according to Lowe and Neubauer (2019) globalization in this view is often viewed as outside conventional and accepted notions of restraint and character—a term that for many calls forth a process that is proceeding recklessly and without measure or control; or, framed somewhat differently, one can suggest that the ideological drivers of globalization in turn also influence the ideological interpretations of the international or internationalization (p.11). As these views, higher education needs to be managed to make it of international standard which will be different from more traditional systems.

In addition, the findings from the third research question of this study related to the impacts of globalization, which is a burning issue of the present higher education sector. The findings are that globalization has done many things in higher education sector. It has provided access to knowledge and information to many people all round the world. More significantly, the impact found from globalization is that of openness of policies, which has forced to follow similar trends in higher education. Next impact of globalization found at present is expansion of higher education through private institutions. In other words, globalization and its forces have reduced investment in higher education to be made by government side. In turn, this situation has promoted private higher education institutions barring entry of low-income group of people. Similarly, another impact of globalization on higher education is the use of ICT in developed countries and same is needed in poor countries but it is much costlier for poor nations. Regarding present need of education, Government of India (2020) has focused on holistic development of learners and stated, "The key overall thrust of curriculum and pedagogy reforms across all stages will be to move the education system towards real understanding and towards learning how to learn- and away from the culture of rote learning as is at present" (p. 12.) Global forces of education have forced to make education in terms of creative and critical learning. Furthermore, Government of India has added, "The aim of education will not only be cognitive development, but also building character and creating holistic and well-rounded individuals equipped with the key 21st century skills (p.12).

As mention in Indian education policy to develop creative form of education is of great importance. So it is necessary to address the impacts of globalization to reform higher education management with innovative steps to make balance of global challenges.

7. Conclusion

This research study relates to 21st century higher education with respect to globalization. At the present era of globalization, there are many challenges in higher education. Some of the challenges are transformation of education from traditional rote learning systems to development of creativity in higher education. Furthermore, changes in education policies are in need to support social changes. For such situation, Long (2001 has mentioned that the need of research today concerns with the requirement of new analytical insights of social differentiation (p.236). To support present societies in need of new dimensions from education sector need more fields than that in the past. This study shows that education policies need to apply new methods and ideas as innovative process. For global challenges, Long (2001) has mentioned changes in production, work, economic life, appearance of new social movements, as well as the issues of knowledge science and technology (p. 215). With respect to these points, innovative learning model in higher education needs to have been applied. Similarly, 21st century learners need flexibility in higher education; they need online and distance mode of education so that learners can attend classes according to their own time, conveniently.

In addition, neoliberalism has provided flexibility in the movement of people all over the world. Consequently, as the impact of globalization, people have got access to more knowledge and information from all-round the world in no time; and the policy of openness has great impact on higher education. Moreover, globalization promoted privatization so that there is massification of higher education through private institutions. These all activities are concerned with social changes occurring at present. Regarding social changes, Hunt and Collaner (2017) have stated, "The rate of social change has gradually gained momentum through the course of human social development. Social change has behaved much like a snowball rolling down a hill. Accelerating change has been the development of rapid transportation and communication" (p. 73). As shown above, social changes are inevitable because people have entered this digital era crossing over from the Stone Age to the industrial revolution. More changes may have got possibilities to take place in the future which human beings are compelled to welcome.

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VOLUME 1 ISSUE 1

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INFLUENCE OF BRAND TRUST, BRAND IMAGE AND BRAND PARITY ON PURCHASE INTENT OF PRODUCT BRANDS AMONG ITS CONSUMERS

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Abstract

In today's post-modern era, Brands significantly play an important role in consumer decision making across categories. This paper aimed at examining how brand trust, brand image and brand parity have an influence on brand purchase intent. The researcher has attempted to validate through real Brands from the portfolio of an indigenous Corporate Brand, Dabur India Ltd. This century old Brand has been in news recently for successfully defending the market position, primarily due to Brand image & Trust. A quantitative method using PLS-SEM was employed to test the relationships among the hypothesized constructs. A structured questionnaire consisting of validated scales for brand trust, brand image and brand parity and brand purchase intent was administered to a sample of 300 consumers of Dabur. The results of this study showed that brand trust, brand image and brand parity have a significant influence on brand purchase intent. The results of this empirical study provided fruitful implications to marketers, academicians, practitioners as well as policy makers. This study makes a significant contribution to the brand management literature by systematically examining the influence of brand trust, brand image and brand parity on brand purchase intent. On the practitioners' side, this study therefore submits that brand managers for companies ought to concentrate on strategies that enhance purchase intent in the fiercely competitive marketplace. This study also supports the management on evidence-based Business decision for investment in Brand building. **Keywords:** Brand trust, Brand Image, Brand parity, Purchase intent, Dabur

1. Introduction

In today's turbulent marketplace where consumers have an enormous amount of information with regard to products/services at their disposal, yelling louder is not a solution for being heard or recognized in the marketplace. Instead, creating an outstanding brand value proposition that appeals to consumers is the right recourse (Ahuvia, 2005). Brands play a pivotal role in shaping consumer attitude and purchase intention. Brands as a sign, symbol resonate with the corporate brand identity and image that goes a long way in building consumer trust.

Many researchers have highlighted the importance of branding, like Magnoni and Roux (2012) who concurs that building and maintaining a strong consumer-brand relationship is of utmost importance to marketers. It

OPJU BUSINESS REVIEW

VOLUME 1 ISSUE 1

is also stated that a successful brand results in increased market share and profitability (Roustasekehravani and Hamid, 2014), establishing a competitive advantage over rivals (Chang & Liu, 2009) and to create loyal customers (Keller, 2013). However, in reality, there seems to be a paradox as the 'No.1 brands' are not necessarily the 'best products. This stems from the word 'best itself: -- i.e., best for whom, and at what? The whole idea boils down to the customer centric marketing that "*Branding starts from the customer, and asks, what does he or she value*?" Brands become credible only through the creation of a unique value proposition and persistent repetition of their value proposition to consumers over years.

In the case of FMCGs, it is observed that most companies market multiple brands, i.e. a brand portfolio. Multiple studies have shown that if consumers perceive a fit between the brand and the corporate product portfolio, then it creates a more favorable purchase intention. So, brand portfolio management is indispensable for successful market positioning. The framework adopted in this study is the 'Categorization theory' that has been specifically applied in the case of Dabur brands. Through this study, the aim is to understand the impact of brand trust, brand image and brand parity on the consumers purchase intent across brands in the portfolio. The 'Categorization theory' is apt in situations when a consumer has little experience with a product brand, but is able to categorize it with products that are familiar (Cohen and Basu, 1987). Also when consumers first encounter the product brand, they think of ways in which the extension fits with their idea of the parent brand "category" (Boush & Loken, 1991). Such elaboration by consumers results in new associations with the brand (Loken and Roedder, 1993) and, in turn, that can alter consumers' overall evaluation of the brand.

The study has attempted to validate this in the context of real brands from the portfolio of the indigenous corporate brand, i.e. Dabur India Ltd. This century old brand has been in news recently for successfully defending the market position, primarily due to brand trust. Dabur till date forges ahead of its competitors which is attributable to a unique array of brands in its portfolio. But of late, it has been repositioning to come out of the shell of just one of the traditional company product brands to one with 'modern brands' in its portfolio.

The major contribution of the paper is that it adopts a framework which will make a positive input to the body of knowledge and the growing branding literature. Taking clues from this case of Dabur brands, similar companies can manage the wide portfolio of its distinct brands. Many researchers have considered fit to be a key factor in brand extension (e.g. Aaker & Keller, 1990; Boush & Loken, 1991; Sheinin & Schmidt, 1994). They consider the fit of a parent or core brand and its extensions in terms of their product similarity.

In general, fit is referred to as the degree to which consumers view the corporate brand as being similar to

the existing products affiliated with the brand (e.g., Aaker & Keller, 1990; Bottomley & Holden, 2001; Tauber, 1993). Consistent with categorization theory, brand portfolio can be viewed as a category and products are evaluated based on how well they meet the criteria for membership in the category.

2. Theoretical Background & Literature Review

This study draws from the 'Categorization theory' which is discussed herewith, including pertinent studies related to the constructs undertaken in this study.

2.1 Categorization Theory

Categorization theory states that an individual develops distinct categories of stored information in memory (Brewer, 1988; Fiske and Pavelchak, 1986). If the core brand associations are transferred to the other brands in the portfolio, consumers will perceive the extension as fitting with the new category and will accept it (Chalcravarti et al., 1990; Park et al., 1991). Previous studies have also indicated that categorization judgments and the transfer of brand associations are particularly affected by consumer perceptions of fit (Aaker and Keller, 1990). However, the association can be in the form of physical characteristics such as body shape, or a verbally transmitted categorical label such as race or gender and thus judged by the affection or beliefs associated with the category in memory (Fiske and Steven, 1990). This is better represented in the figure below:





2.2 Product Brand Trust

Brand trust is defined as "a consumer's confident beliefs that he or she can rely on the brand to deliver promised services or products" (Chinomona, Mahlangu and Pooe, 2013) It is created and developed by direct experiences of consumers via brands (Kabadayi & Alan, 2012).

According to Keller (2008) brand trust is defined as a "sense of security possessed by the product user, in

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OPJU BUSINESS REVIEW
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their interaction with a brand based on the perception that the brand can be trusted and pay attention to the interests and welfare of consumers". Cakmak (2016) also opined that brand trust is "a secure feeling which consumer feels that the brand in question will meet their personal expectations" The biggest difficulty in conceptualizing trust is on the basis of cognitive and affective. In branding literature, there are varied studies that reveal the relationship among trust, commitment and satisfaction impacting consumers loyalty (Louis &Lombart, 2010; Chiu, Huang & Yen, 2010), relationship between brand trust and attachment (Kim, Chung, & Lee, 2011; Chinomona, 2013) and also studies unveiling the relationship between brand trust and purchase intention (Reast, J.D. 2003), needs to be managed and monitored with care.

According to Keller (2008) brand trust is defined as a sense of security possessed by the product user, in their interaction with a brand based on the perception that the brand can be trusted and pay attention to the interests and welfare of consumers.

2.3 Brand Image

In order to create a positive brand image, it requires marketing programs that link strong, favorable, and unique associations to brand memory. A brand association is the utmost recognised characteristic of brand equity (Leh & Lee, 2011). A brand association comprises all brand related thoughts, feelings, perceptions, images, experiences, beliefs, attitudes and is everything connected in memory to a brand (Kotler & Keller, 2006). Associations embody the basis for purchase decision and for brand loyalty (Fayrene & Lee, 2011) and act as information collecting tools to execute brand differentiation and brand extension (Aaker, 1996). Furthermore, brand image can be viewed as the functional attribute of the product or service which make consumers reflect their self-image and which assists when making purchase decisions (Aghekyan-Simonian et al., 2012). In addition, the extant branding literature indicates that products with stronger brand image can diminish consumers' cognitive risk (Kwon & Lennon, 2009). In this respect, consumers often exploit the sense of brand image to infer the quality of the product or service and make decisions (Salinas & Pérez, 2009). Consequently, the quality of the brand image indirectly causes consumers' perception of the product or service quality. In addition, utilizing the ideal brand image not only assists businesses to establish market positions, but also protects brands from competition (Cretu & Brodie, 2007). As result, businesses nowadays labour to retain their brand image and therefore invest significant resources to develop names with a favorable image (Keller, 2017).

2.4 Brand Parity

Brand parity is defined as the "*overall perception held by the consumer that the differences between the major brand alternatives in a product category are small*" (Muncy 1996, p. 411). As such, when consumers view major brand alternatives as similar, parity is high, and when consumers view brand alternatives as dissimilar, parity is low. In essence, it can be viewed as the opposite of product differentiation. If high brand parity is perceived, the consumer cannot identify significant differences between the brands. The brands failed in their principal duty: to serve as guidance in the decision-making process and to give a unique positioning. High brand parity scores can be observed within the product categories, where the purchase risk is very low, as the products have a low price. Low brand parity scores can be measured for product categories where the brands are charged with emotional values, like perfume and clothing etc. (BBDO Consulting 2005).

2.5 Purchase Intent

The intention to buy is something that is related to the customer's plan to buy a particular product, and how many units of product are needed in a certain period. The intention to make a purchase is a form of decision that studies why consumers buy a brand (Shah et al., 2012). Martinez and Kim (2012) state that purchase intention is the stage of the respondent's desire to behave before making an actual purchase. Purchase intention is a mental statement of consumers that reflects the plan to purchase a number of products with a particular brand. Purchase intention is measured by 3 (three) indicators referring to Barber, et al., (2012), Kudeshia and Kumar, (2017), Peng and Go, (2015), and Wang, et al., (2013) as-*Transactional interest*, namely the tendency of someone to buy the product, *Referential interest* that is a person's tendency to refer a product to others, and *Preferential interest* that is interest that describes the behavior of someone who has a primary preference for the product. Knowledge of purchase intentions is needed by marketers to find out consumer intentions towards a product and to predict consumer behaviour in the future. The intention to buy is formed by the attitude of consumers towards products and consumer confidence in the quality of products. The lower consumer confidence in a product will cause a decrease in consumer purchase intention.

3. Conceptual framework and Hypothesis

In order to provide a link between the research constructs under investigation, the study embarked on a conceptual framework. Jabareen (2009) defines a conceptual framework as a network, or "a plan," of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena. Furthermore, drawing from the literature reviewed, the conceptual model (Figure 2) has been developed. A conceptual model is desirable as it describes the relationship between constructs of the study (Maziriri and Chuchu, 2017; Maziriri, Mapuranga & Madinga, 2018). The hypothesized relationships between the research constructs are subsequently discussed.

OPJU BUSINESS REVIEW



Figure 2: Proposed Research Framework

Drawing from the literature and the empirical evidence, the study hypothesizes that:

- H1: Brand trust has a positive influence on purchase intent
- H2: Brand image has a positive influence on purchase intent
- H3: Brand parity has a positive influence on purchase intent

4. Methodology

The study utilized a quantitative research design using a structured questionnaire. To achieve the objectives in this quantitative study, a descriptive research design was adopted to collect responses from a sample of 300 respondents using structured questionnaires. Convenience sampling was used to gather responses. The construct measures used were drawn from pre-validated scale items of researchers and further checked for their reliability using the Cronbach alpha which was found to be >0.90. The scale items related to items on brand trust, brand image, brand parity and purchase intention. The data was analyzed using the advanced statistical techniques for construct validation (CFA) and thereafter for testing the structural relationships modelling to prove the hypotheses of the study (SEM).

5. Analysis and Interpretation

5.1 Exploratory Factor Analysis, EFA

In the first place, EFA using the technique of Principal Component Analysis was first run to identify and group the factors as per the study. Prior to administering the data was checked for the data suitability through the measures of KMO (0.902) and the Bartlett test of sphericity (chi square (210) =5626.832; p<0.001). As expected, 4 factors were extracted that explained 69.024% variation. All the indicators (items) were loaded on their respective factors (constructs), thereby indicating construct validity. The factor loadings are illustrated in Table 2.

OPJU BUSINESS REVIEW

Table 1: KMO and Bartlett's Test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of S	ampling Adequacy.	0.902
Bartlett's Test of Sphericity	Approx. Chi-Square	5626.832
	df	210
	Sig.	0

Table 2: Factor Analysis Result

Construct	Statement	Code	Factor	Variance	Reliability
			Loading	(%)	
Brand	Product Quality	VPPQ	0.927	38.854	0.936
Image	Benefits Delivered as Promised	VPBDP	0.862		
	Packaging of Products	VPPP	0.864		
	Value for Money	VPVFM	0.874		
	Innovative Product Range	VPIPR	0.775		
	Brand Image	VPBI	0.862		
Brand	Selling just a Product	BTSP	0.903	6.104	0.836
Trust	Deliver on my Expectations	BTDOE	0.777		
	Advt I Believe	BTAB	0.878		
	What to Expect	BTWE	0.585		
Brand	Brand Parity-Big Difference	BPBD	0.611	15.205	0.89
Parity	Brand Parity-Price	BPPR	0.738		
	Brand Parity-Basically the Same	BPBS	0.83		
	Brand Parity-Product Quality	BPPQ	0.762		
	Brand Parity-Delivers Benefits as	BPBDP	0.815		
	Promised				
	Brand Parity-Packaging	BPPP	0.772		
	Brand Parity-Product Range	BPPRR	0.844		
Purchase	Try Again	PITA	0.681	8.861	0.817
Intention	Buy if see in Store	PIBSS	0.901		
	Actively seek the Brand	PIA	0.791		
	Even if Company is not Familiar	PIECF	0.713		

5.2 Confirmatory Factor Analysis, CFA

To confirm the factor structure obtained through EFA, we employed confirmatory factor analysis (CFA) using AMOS software. The measurement model comprising.

Table 3: Model Fit Measures

Measure	Estimate
CMIN	739.633
DF	182
CMIN/DF	4.064
CFI	0.9
SRMR	0.074

Table 4: Validity Analysis result

Validity A	Analysis							
	CR	AVE	MSV	MaxR(H)	BI	BP	BT	PI
BI	0.937	0.713	0.294	0.95	0.844			
BP	0.892	0.543	0.205	0.899	0.321***	0.737		
BT	0.854	0.601	0.379	0.89	0.542***	0.440***	0.775	
PI	0.814	0.523	0.379	0.817	0.514***	0.453***	0.616***	0.723

5.3 Structural Equation Modelling (SEM)

This study used structural equation modeling statistical technique (SEM) to estimate the causal relationship among the constructs based on the conceptual model in Figure 1. The results are reported in Table 6. The model was acceptable in terms of overall goodness of fit. Acceptable model fit was indicated by χ^2 (df) values < 3; RMSEA values <0.08; CFI values >.90. The results of the current study indicated that: χ^2 (df) (1.695); CFI (0.95) as well as RMSEA (0.05). This suggests that the model converged well and had a credible manifestation of the fundamental empirical data structures.

6. Testing of Hypothesis

The results of this study provide explanations for all the three hypotheses. The path coefficients for H1, H2, and H3 were: 0.31; 0.22 and 0.17 respectively. Hypothesis (H1) posited a positive relationship between Brand Trust and Purchase intention (p value =0.31). Hypothesis (H2) also posited a positive significant relationship between Brand image and purchase intention. The third Hypothesis (H3) also posited a positive relationship between Brand purchase intention (p value= 0.17). The values of the various relationships are shown using the beta (β) values in the modified diagram the path analysis is presented in Figure 4.

]	Regression	n Weights		Standardized Regression Weights
			Estimate	S.E.	C.R.	Р	Estimate
VPPQ	<	BI	1				0.94
VPBDP	<	BI	0.66	0.03	20.24	***	0.75
VPPP	<	BI	0.86	0.03	26.46	***	0.85
VPVFM	<	BI	0.89	0.03	26.39	***	0.85
VPIPR	<	BI	0.83	0.04	21.24	***	0.77
VPBI	<	BI	0.9	0.03	29.84	***	0.89
BPPR	<	BP	1				0.73
BPBS	<	BP	1.14	0.08	15.11	***	0.78
BPPQ	<	BP	0.97	0.07	14.7	***	0.76
BPBDP	<	BP	1.04	0.07	15.64	***	0.81
BPPP	<	BP	0.96	0.07	13.77	***	0.71
BPPRR	<	BP	1	0.07	14.79	***	0.77
BTSP	<	BT	1				0.88
BTDOE	<	BT	0.92	0.05	18.71	***	0.79
BTAB	<	BT	1.01	0.05	20.98	***	0.85
BTWE	<	BT	0.69	0.06	11.12	***	0.53
PIA	<	PI	1				0.74
PIBSS	<	PI	0.95	0.07	12.88	***	0.75
PIECF	<	PI	1.06	0.08	12.92	***	0.74
BPBD	<	BP	0.69	0.06	10.95	***	0.57
PITA	<	PI	1.09	0.1	11.44	***	0.66

Table 5: Regression Weights (CFA)



Figure 3: CFA Figure

		-					_
			Regression	Weights	1		Standardized Regression Weights
			Estimate	S.E.	C.R.	Р	Estimate
PI	<	BI	0.22	0.04	5.35	***	0.28
PI	<	BP	0.17	0.04	4.11	***	0.22
PI	<	BT	0.31	0.04	7.44	***	0.44
VPPQ	<	BI	1				0.94
VPBDP	<	BI	0.65	0.03	20.33	***	0.75
VPPP	<	BI	0.85	0.03	26.5	***	0.85
VPVFM	<	BI	0.89	0.03	26.36	***	0.85
VPIPR	<	BI	0.82	0.04	21.04	***	0.77
VPBI	<	BI	0.9	0.03	30.12	***	0.89
BPPR	<	BP	1				0.72
BPBS	<	BP	1.16	0.08	14.99	***	0.79
BPPQ	<	BP	0.98	0.07	14.45	***	0.76
BPBDP	<	BP	1.05	0.07	15.41	***	0.81
BPPP	<	BP	0.97	0.07	13.61	***	0.71
BPPRR	<	BP	1.02	0.07	14.75	***	0.77
BTSP	<	BT	1				0.88
BTDOE	<	BT	0.92	0.05	18.54	***	0.79
BTAB	<	BT	1	0.05	20.45	***	0.85
BTWE	<	BT	0.67	0.06	10.68	***	0.52
PIA	<	PI	1				0.67
PIBSS	<	PI	1.05	0.09	12.22	***	0.78
PIECF	<	PI	1.04	0.1	10.99	***	0.66
PITA	<	PI	1.26	0.11	11.46	***	0.7
BPBD	<	BP	0.69	0.06	10.8	***	0.57

Table 6: Regression Weights and Standardized Regression Weights



Figure 4: SEM Figure

Table 7: Hypotheses Results

Hypothesis			Weights	Result
Purchase Intention	<	PBI	0.22	Supported
Purchase Intention	<	PBT	0.31	Supported
Purchase Intention	<	PBP	0.17	Supported

7. Conclusions and Recommendations

The results of the study indicate that the most dominant factor influencing purchase intention was Brand Trust, followed by product Brand image and Brand Parity. This leads to validation of the fact that Brand Trust is of significance to marketing practitioners. To customers, role of the Brand is to provide trust, knowledge and expertise while decision making for any needs. Brand Trust is earned, cultivated and nurtured through the activities accrued in the past and present. With virtually all firms seeking to grow their brands through new product development and the introduction of brand extensions, one potentially important corporate brand association is perceived brand innovativeness (Brexendorf et al., 2015). According to Keller (2008) brand trust is defined as a sense of security possessed by the product user, in their interaction with a brand based on the perception that the brand can be trusted and pay attention to the interests and welfare of consumers. Both the structure and investments choices by the corporations are shifting that is from treating brands as stand-alone entities to managing the branding ecosystems. Brands are no longer considered as individual responses to consumer demands, but rather as part of a whole. Hence all these 3 variables Trust, Image and Parity and very critical variables to be managed for a Product Brand. This research paper brings together disparate but highly relevant consumer-brand relationship theories to progress the literature and improve understanding of Brand architecture. This study will also contribute to the brand portfolio as a strategic lever for brand association and intend to brand purchase.

8. Limitations and Future research directions

There are some limitations of the study. In addition to the 3 variables covered in this study few more variable needs to be studied, such as brand awareness, brand association, and consideration. Second, we should investigate this study in consumer durable industries which has been pursuing Branded House architecture since long. Third, the slightly more bigger sample framework both respondent profile and geography. We should track this design for use cases and try to develop a simple RoI model

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SUSTAINABLE ECONOMIC DEVELOPMENT ASSESSMENT AND FDI: AN INDIAN PERSPECTIVE

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Abstract

This paper aims to establish impact of Foreign Direct Investment on growth and vividly on development of India. Quantitative research design was used and secondary data collection method was utilized to collect the sample of SEDA score, Income, Economic Stability, Employment, health, Education, Infrastructure, Equality, Civil Society, Governance and Environment. GDP Growth(%), GDP in current US billion Dollars. Further, Linear Regression, maximum likelihood method and Auto regression model (VAR) followed by Granger causality Wald test (GC) was used to evaluate the causality between GDP and FDI and Sustainable Economic Development Assessment (SEDA). The primary findings portray impact of FDI on GDP to be positive but growth rate to be negative. Impact of FDI on overall development (SEDA) score is positive includingsome distinct variables as well but its impact on environment is negative. Three-way causality between FDI, SEDA and GDP Growth exist. Findings provide a comprehensive image of how FDI has impacted a developing country like India in terms of growth and development.

Keywords: Foreign Direct Investment, Growth, Development, Income, and Environment.

1. Introduction

Over the past three decades, the rise of globalization in India has seen a rapid spike in international investment and international investors have named India as one of the most promising foreign investment destinations. Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FII)can be categorized as an overseas investment and may include purchasing or reinvesting gains or additional equities. The FDI is the movement of foreign funds or the inflow of capital to acorporation from abroad by the purchase of a local enterprise, or the construction of a new position in every region. In other terms, foreign direct investment is known as its direction of movement, "cross-border expenditure by a single investor in the residential and single parking companies of different countries" (IMF, 2002). FDI plays a key role in the growth and prosperity of a nation expanding the global trade networks where an FDI inflow funds the direction of progress. Indian Foreign Direct Investment is a major source for the country's economic growth. India has long been seen as an ever-increasing goal for foreign investment, and investors are not hesitant to takeadvantage of the Indian market, reasonably low labor costs and all the special benefits of investing.

Foreign funds continue to flood into the country, largely because of the booming investment climateand successful government policy administration in India. Vibrant measures have been taken to easeconditions in specific sectors for foreign capital inflows, such as housing, telecommunications, public sector oil refineries and so on. We have attempted to assess the effect of FDI on India's growth criteria explicitly defined by the Boston Consultancy Group (BCG) in their SEDA (Sustainable Economic Development Assessment) data assessments. The data envisages overall development score of more than 145 countries worldwide, which largely encompasses three key dimensions, namely demographic, finance, and sustainable. The measurements include very few elements, which are as follows. The economic metric has three dimensions, which have further components that are measured to determine the economic, investment and sustainability metrics. Economic metric involves income (GDP/Capita & Purchasing Power parity), Economic Stability (Inflation, GDP & Inflation Volatility) and Employment (Rate of Employment & unemployment). The second broad dimension investment includes Health (Access to health care & Health care outcome), Education (Access to education & education outcomes) and infrastructure (Water, Sanitation, Transport & ICT). The third dimension, sustainability includes equality (income distribution, equality in education & life expectancy), Civil Society (civil activism, intergroup cohesion, inter personal safety and trust, gender equality), governance (rule of law, corruption accountability, stability, property rights) and finally environment (air quality, Carbon dioxide intensity, protected areas renewable energy).

2. Literature review

Data say foreign buyers' presence has a positive impact on SDG scores. However, while FDI has a beneficial impact in areas such as essential facilities, safe water, sanitation, and renewable energy, host countries could have certain adverse environmental impacts (Aust, Morais, Pinto 2020). A research paper quantifies the FDI's impact on India's area of education. The results suggest that the increase in FDI will be directly related to job growth and improvement of the infrastructure (Kumar and Mehta 2015). Numerous reports have shown the effect of the FDI in recent years on economic development and prosperity in both emerging and industrialised countries (Basu & Azmat, 2004). There is a lot of study on the FDI's impact on a positive understanding of socio-economic development, such as human advancement (Sahoo & Sethi, 2017).

Over the past decades, the FDI 'srole, importance and effect has been extensively discussed in micro, macro and global economic literature. And a major problem is the FDI-Economic Growth Partnership. Theories and existing literature have contrasting results as reported by Wan (2010); on the one side, FDI is seen as leading to higher domestic production, generating employment and profits, fostering development and stimulating talent transfer through foreign technology and know-how, and boosting host count. However, factors and elements remain uncertain which may create a reliably positive partnership between FDI flows and sustainable growth. If we agree that FDI promotes economic development, higher wages, higher work rates, and technological transition, the reaction will be to the environmental and social consequences — flows of foreign direct investment (Zarksy and Gallagher, 2003).Nonetheless, much of the research done in this regard has not provided proof of anomnipresent, structural impact on pollution; however, the likelihood that more strict regulation could, under some circumstances, alter the status of the FDI can not be entirely ruled out (Golub, Kauffmann and Yeres, 2011).

In other words, the role of FDI is to help local economic conditions and capacities, industrial, legislative, and administrative (Zarksy and Gallagher, 2003). The effect of FDI, either positive or negative, depends on the balance of macro-micro-factor. At the macroeconomic scale, FDI's impact on the economy of developed countries is defined by the makeup of the sectors participating in FDI, as well as the degree to which it is based in pollution-intensive manufacturing, in addition to implementing environmental regulations. Environmental issues at the microeconomic stage rely on structural policies and growth frameworks employed in global affiliates (Witkowska, 2011). Some scholars address the FDI 's importance to sustainable growth, as expressed in literature and observational studies on European Union countries. The approach includes the study and replication, data description as well as data contrast. Considered within the constraints of the research methods and the absence of a shared understanding of FDI 's environmental-relevant concept and calculation process, the research findings illustrate the significance and usefulness of green FDI in EU countries, with the capacity to produce very positive effects that is regulated by a nation's micro and macro climate. Developed nations, growing markets and transition countries see FDI as a means of economic progress, modernization, income rise, and jobs (OECD 2002). The recipient countries accept and encourage these inflows to understand the potential role of FDI in economic growth and jobs opportunities (Blanco et al., 2011). However, as FDI inflows indicate a increasing pattern in this area, pollution emissions also do. With the growing pattern of FDI and emissions in Latin America, investigating the validity of PHH in this region seems intriguing and worth exploring.

Over the past few decades, foreign direct investment (FDI) has been seen as a factor that affects economic growth (EG) specifically and indirectly; A collection of study papers examined by two scholars on the FDI-EG relationships from 1994 to 2012, in particular the impact of FDI on EG.

VOLUME 1 ISSUE 1

Results reveal that the main outcome of the FDI-EG interaction is optimistic but also pessimistic or even nil. And the relationship has several contributing factors, such as appropriate human capital ratios, welldeveloped equity markets, complementarity between domestic and foreign investment and free trade regimes, etc. (Alamfraji Alamsafir 2014). In a panel data framework for a study of 18Latin American countries for the period 1970-99, (Bengoa & Sanchez-Robles, 2003) believed the nation required a reasonable degree of economic development, liberalized capital markets, as wellas human resources, to achieve a positive impact from FDI. In a panel analysis of data for 84 countries across the period 1970-99 (Li & Liu, 2005), it was found that FDI impacts growth expressly and implicitly through its human capital ties. Regarding the complementarity between domestic and foreign investment (Kentor, 1998), it assessed foreign capital dependence and found that countries with comparatively high foreign capital reliance experienced slower economic growthover the years 1940-1990 than less dependent countries. They concluded that foreign investment initially has a positive influence on production, but in the long run dependence on foreign investment has a negative effect on growth.

Objectives:

1. To establish impact of FDI on growth and sustainable economic development

- 2. To establish impact of FDI on ten sub dimensions of development.
- 3. To establish a three-way causality between Growth, FDI and SEDA

3. Methodology & Data Analysis

The study has broadly two facets. In the first one we shall see the impact of foreign Direct Investment on the development of the Indian Economy. Overall development score of a country (Sustainable Economic Development Assessment, SEDA). It also includes the initiaton to find the impact of FDI on different factes of growth. Here GDP (current billion USD), GDP growth in percentage.

Further Linear Regression is used, heteroskedastic panels corrected standard errors and the method to compute autocorrelation is based on Durbin –Watson to regress Income, Economic Stability, Employment, health, Education, Infrastructure, Equality, Civil Society, Governance and Environment on FDI.

Model Specification I:

$$\begin{array}{l} DEV_{it} = \beta_0 + \beta_1 \ FDI_{it} + \mu \\ Growth_{it} = \alpha_0 + \alpha_1 \ FDI_{it} + \xi i = 1,2...n \ and \ t = 1,2...n \end{array}$$

In the second part we shall establish three-way causality between the variables.

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Linear regression using maximum likelihood method is used. Time Period considered is from 2008 to 2019 (12 years) for India. We have used Vector Autoregression model (VAR) followed byGranger causality Wald test (GC) to evaluate the causality between Growth, FDI and SEDA and how many years of lag is required to achieve both at a time.

This method involves regression where the independent variables include the lagged values of dependent variables and also the lagged values of independent variables.

Model Specification II:

Three Way Model:

$$\begin{split} \mathbf{Y}_{t} &= \beta_{0} + \beta_{1} \; \mathbf{Y}_{t-j} + \beta_{2} \; \mathbf{X}_{t-j} + \beta_{3} \; \mathbf{Z}_{t-j} + \mu \\ \mathbf{X}_{t} &= \beta_{0} + \beta_{1} \; \mathbf{X}_{t-j} + \beta_{2} \; \mathbf{Y}_{t-j} + \beta_{3} \; \mathbf{Z}_{t-j} + \mu \\ \mathbf{Z}_{t} &= \beta_{0} + \beta_{1} \; \mathbf{Z}_{t-j} + \beta_{2} \; \mathbf{X}_{t-j} + \beta_{3} \; \mathbf{Y}_{t-j} + \mu \end{split}$$

The standard model is elaborated with the obtained models after finding out the optimum lag. Heret-j signifies the optimum lag number of years used in the independent variables.

4. Impact of FDI on Development and Growth:

To explain the relationship between the variables, we first performed a correlation test and noticed that there is a positive association between overall progress and FDI. However, when it comes to individual progress measurements, FDI is negatively correlated with jobs and climate. FDI isnegative (percentage) correlated with GDP growth.

The impact of FDI on development and growth is found with the help of linear regression analysis with the help of maximum likelihood method. However, the results align with simple linear regressions. The standard least square estimator maximizes the probability of a linear regression model. Sustainable Economic Development Assessment, SEDA is the dependent variables. Impactof FDI on two facets of growth is also estimated. Here GDP (current billion USD) and GDP growth in percentage are used as a proxy of growth.

The FDI has a major positive effect on the overall development score calculated by SEDA (Sustainable Economic Development Assessment), which reflects an overall national development score including income, economic stability, health, education, infrastructure, civil society, governance, environment, equality and employment. But, to explore this aspect we have identified causal relationships in the next part of the study between lagged values.

										-			
	SED	Income	Eco	Em	Health	Edu	Infra	Equality	Cvl Sc	Gover	Env	FDI	Growth
	Α		Stab	р									
SEDA	1												
Income	0.9	1											
Eco	0.7	0.5	1										
Stab													
Emp	-0.8	-0.8	-0.2	1									
Health	1.0	1.0	0.5	-0.8	1								
Edu	0.9	0.8	0.6	-0.8	0.8	1							
Infra	0.9	1.0	0.4	-0.9	1.0	0.9	1						
Equality	0.9	0.8	0.5	-0.9	0.8	1.0	0.9	1.0					
Cvl Sc	0.7	0.6	0.4	-0.5	0.6	0.5	0.6	0.5	1				
Gover	0.6	0.5	0.6	0.0	0.6	0.2	0.4	0.1	0.5	1			
Env	-0.8	-0.8	-0.4	0.8	-0.8	-0.8	-0.8	-0.7	-0.6	-0.4	1		
FDI	0.6	0.5	0.6	-0.1	0.6	0.4	0.4	0.2	0.4	0.8	-0.4	1.0	
Growth	0.1	0.2	-0.2	-0.4	0.2	0.1	0.1	0.2	0.3	0.0	-0.5	-0.2	1

Exhibit 1: Correlation Between Growth (GDP%), FDI and Development

Source: Calculated by the Author

The impact of FDI on growth is also important. The impact of FDI on GDP expressed in billions of US dollars is significantly positive, however the impact on annual growth (GDP) percentage is negative. This result aligns with Alamfraji Alamsafir, 2014 who proposed that FDI-EG relationship 's key result is positive, but also negative or even null.

Exhibit 2: Impact of FDI on Growth & Development

Independent Variable FDI

Dependent Variables	Coefficient	Standard Error
SEDA (Overall DEV Score)	0.14*	0.06*
Growth Annual %	-0.04**	0.06**
GDP in billion USD	31.8**	16.5**

Source: Calculated by the Author

However, to explore this we have regressed each dimension of development on FDI and the model is controlled by GDP growth. Linear Regression is used, heteroskedastic panels corrected standard errors and the method to compute autocorrelation is based on Durbin –Watson.

We have also suppressed omitted collinear covariates. The results obtained are quite interesting. Here GDP is used as a control variable to estimate the impact of Fdi on indicators of development.

Model Extensions (Specification I):

- Income $_{it} = \beta_0 + \beta_1 \text{ FDI }_{it} + \beta_2 \text{ GDP }_{it} + \mu$
- Economic Stability it= $\beta_0 + \beta_1$ FDI it + β_2 GDP it + μ
- Employment $_{it} = \beta_0 + \beta_1 \text{ FDI }_{it} + \beta_2 \text{ GDP }_{it} + \mu$

Exhibit 3: Impact of FDI on Economic Development expressing Income, Economic Stability & Employment

			Employ	пспі			
R ² =.35 Income	 e C +	CO	Het- rrected d. Err.	Z	P> z	[95% Conf. Interval]	
FDI GDP Growth				3.18 0.94	0.00 0.35	0.04 -0.24	0.15 0.69
_cons	0.	.97	1.84	0.53	0.60	-2.64	4.58
			Het- rrected				
R ² =.38 EcoStab	 +	Coef. S	td. Err.	Z	P> z	[95% Conf.	Interval
FDI GDP Growth		0.48 0.43	0.15 0.80			0.20 -1.99	0.77 1.13
_cons	6	2.74	8.66	7.25	0.00	45.77	79.71
		Het-	corrected	 I			
R² =.18 Emp	1	Coef. St	td. Err.	Z	P> z 	[95% Conf.]	[nterval]
FDI GDP Growth		0.04 0.43	0.05 0.36		0.44 0.23	-0.13 -1.14	0.06 0.27
0 0 - 0							

Source: Calculated by the Author

The impact of foreign direct investment on Income (GDP/Capita & Purchasing Power parity) is significantly positive and so is true in case of economic stability (Inflation, GDP & Inflation Volatility) as well. The impact of FDI on employment (Rate of Employment & unemployment). is negative but the probability value being more than 20% we will declare this result to be insignificant.

Model Extensions (Specification I):

Health it= $\beta_0 + \beta_1 \text{ FDI}_{it} + \beta_2 \text{ GDP}_{it} + \mu$ Education it= $\beta_0 + \beta_1 \text{ FDI}_{it} + \beta_2 \text{ GDP}_{it} + \mu$ Infrastructure it= $\beta_0 + \beta_1 \text{ FDI}_{it} + \beta_2 \text{ GDP}_{it} + \mu$

Exhibit 4: Impact of FDI on Investment Development expressing Health, Education & Infrastructure

 R² =.37 Health ⊭	Coef.	Het- corrected	Z	P > z	[95% Conf.	
$\mathbf{K} = .57$ Health $\mathbf{\mu}$					[95% Com. Interval]	
FDI	0.14				0.06	0.23
GDP Growth	0.31	0.32	0.95	0.34	-0.33	0.94
_cons	45.82	2.77	16.52	0.00	40.38	51.26
1	I	Het-correcte	d			
R² =.18 Edu	Coef.	Std. Err.	Z	P> z 	[95% Conf.	Interval]
					-0.02	0.24
GDP Growth		0.36			-0.43	0.96
GDP Growth cons	0.26	0.36			-0.43 3.68	0.96 18.98
	11.33		2.90			
	11.33 III.33	3.90	2.90 d		3.68	18.98
 R ² =.24 Infra FDI	11.33 I Coef. 0.32	3.90 Het-correcte Std. Err. 0.13	2.90 d z 2.53	0.00 P > z 0.01	3.68 [95% Conf. 0.07	18.98 [Interval] 0.57
cons 	11.33 I Coef. 0.32	3.90 Het-correcte Std. Err.	2.90 d z 2.53	0.00 P > z	3.68 [95% Conf. 0.07	18.98 [Interval]

Source: Calculated by the Author

The impact of foreign direct investment on health (Access to health care & Health care outcome) is significantly positive. The impact of FDI on education (Access to education & education outcomes) is positive. The impact of FDI on infrastructure (Water, Sanitation, Transport & ICT) is positive as well.

Model Extensions (Specification I):

Equality
$$_{it} = \beta_0 + \beta_1 \text{ FDI}_{it} + \beta_2 \text{ GDP}_{it} + \mu$$

Civil Society $_{it} = \beta_0 + \beta_1 \text{ FDI}_{it} + \beta_2 \text{ GDP}_{it} + \mu$
Governance $_{it} = \beta_0 + \beta_1 \text{ FDI}_{it} + \beta_2 \text{ GDP}_{it} + \mu$
Environment $_{it} = \beta_0 + \beta_1 \text{ FDI}_{it} + \beta_2 \text{ GDP}_{it} + \mu$

The impact of foreign direct investment on equality (income distribution, equality in education & life expectancy), is insignificant so we cannot infer anything from the result. The impact of FDI on civil society (civil activism, intergroup cohesion, inter personal safety and trust, gender equality) significantly is positive. The impact of FDI on is governance (rule of law, corruption accountability, stability, property rights) is significantly positive as well. However, the impact of FDI on environment (air quality, Carbon dioxide intensity, protected areas renewable energy) is significantly negative.

Model Extensions (Specification II):

$$SEDA_{t} = = \beta_{0} + \beta_{1} SEDA_{t-j} + \beta_{2} FDI_{t-j} + \beta_{3} GDP Growth_{t-j} + \mu$$
$$FDI_{t} = = \beta_{0} + \beta_{1} FDI_{t-j} + \beta_{2} SEDA_{t-j} + \beta_{3} GDP Growth_{t-j} + \mu$$
$$GDP Growth_{t} = = \beta_{0} + \beta_{1} GDP growth_{t-j} + \beta_{2} FDI_{t-j} + \beta_{3} SEDA_{t-j} + \mu$$

We did establish a three-way causality between FDI, Growth and also SEDA (Sustainable Economic Development Assessment) expressing overall development. The probability values are less than 5% expressing the validity of the results. The inference drawn from the above analysis is FDI & GDP (2 lag) causes SEDA, SEDA and GDP Growth (2 Lag) causes FDI and also SEDA and FDI (2 lag) causes GDP Growth.

Exhibit 5: Impact of FDI on Sustainable Development expressing Equality, Civil Society, Governance & Environment.

		I		Het-corrected					
$R^2 = .10$	Equality	Ι	Coef.	Std. Err.	Z	P > z	[95% Co	onf. Inte	erval]
		+							
FDI		Ι	0.27	0.27	0.98	0.33	-0.27	0.8	81
GDP Gr	owth	Ι	1.14	1.56	0.73	0.47	-1.93	4.2	20
_cons		I	25.99	15.56	1.67	0.09	-4.49	56.4	48
	CvlSc		Coef.	Hat assurated	7	P> z 0.02	,		
$R^2 = .31$	FDI	1	0.09	Het-corrected Std. Err.	z 2.38	1 > 2 0.02		% Con	f. Interval]
	ГЛ		0.07	Stu. EIT.	2.30		[95	70 COII	I. IIIter varj
		+		0.04				0.02	0.16
 CDB	Crearth	I	0.24		2.07	0.04	0.0		0.67
GDP	Growth	1	0.34	0.17	2.07	0.04			
	_cons	I	33.52	2.29	14.67	0.00	29.0	J4	38.00
	Gover	I	Coef	Hot-corrected	7	P> z 0.00)		
R ² =.65	Gover FDI		Coef. 0.24	Het-corrected Std Err	z 6.61	P> z 0.00		% Con	f Intervall
R ² =.65	Gover FDI		Coef. 0.24	Het-corrected Std. Err.	z 6.61	P> z 0.00		% Con	f. Interval]
R ² =.65		 + 				P> z 0.00		% Con 0.17	f. Interval] 0.31
R² =.65 GDP		 + 		Std. Err.		P > z 0.0 0		0.17	_
	FDI	 	0.24	Std. Err. 0.04	6.61		[95	0.17 3	0.31
	FDI Growth	 	0.24 0.18	Std. Err. 0.04 0.16	6.61 1.14	0.25	[95 -0.1	0.17 3	0.31 0.48
	FDI Growth	 + 	0.24 0.18	Std. Err. 0.04 0.16	6.61 1.14	0.25	-0.1 31.4	0.17 3	0.31 0.48
	FDI Growth _cons	 + 	0.24 0.18 35.17	Std. Err. 0.04 0.16 1.84	6.61 1.14	0.25 0.00	-0.1 31.3	0.17 .3 57	0.31 0.48
GDP	FDI Growth _cons Env	 + 	0.24 0.18 35.17	Std. Err. 0.04 0.16 1.84 Het-corrected	6.61 1.14 19.13	0.25 0.00	-0.1 31.3	0.17 .3 57	0.31 0.48 38.78
GDP	FDI Growth _cons Env		0.24 0.18 35.17	Std. Err. 0.04 0.16 1.84 Het-corrected	6.61 1.14 19.13 z	0.25 0.00	[95 -0.1 31.3	0.17 .3 57	0.31 0.48 38.78
GDP	FDI Growth _cons Env		0.24 0.18 35.17 Coef. -0.07	Std. Err. 0.04 0.16 1.84 Het-corrected Std. Err.	6.61 1.14 19.13 z -2.51	0.25 0.00 P> z 0.01	[95 -0.1 31.3	0.17 .3 57 % Con -0.12	0.31 0.48 38.78 f. Interval]
GDP R ² =.48	FDI Growth _cons Env FDI		0.24 0.18 35.17 Coef. -0.07	Std. Err. 0.04 0.16 1.84 Het-corrected Std. Err. 0.03 0.15	6.61 1.14 19.13 z -2.51	0.25 0.00 P> z 0.01 0.01	-0.1 31.4 [95 -0.7	0.17 .3 57 % Con -0.12	0.31 0.48 38.78 f. Interval] -0.01

Source: Calculated by the Author

5. Conclusion

Let us summarise the topic by analysing growth metrics one by one. Overall progress (SEDA), the link developed with FDI is positive and FDI has a positive effect on the same. Income and FDI have a positive relationship and, FDI has a positive impact on income. Economic stability has a positive relationship with FDI and the influence of FDI is positive. The impact on health, education and infrastructure is also found positive in the country. The effect of FDI on civil society and governance has been found to be positive. The impact of FDI on the environment hasbeen found to be negative. During three way causality test we tested how the lagged values of independent variables impacted the dependent variables and whether three way causalityexisted. Well it does exist between GDP growth, FDI and SEDA , but the impact is worth takinga dig into. Impact of FDI and GDP (2 lag) on SEDA was found negative in the case of the former and positive in case of the latter. The impact of SEDA and GDP growth (2 lag) on FDI was positive (good development and growth attracts FDI) and the impact of SEDA and FDI (2 lag) on GDP growth was found negative in case of both.

Foreign Direct investment is extremely necessary for a country like India, and after liberalisation(1991) FDI has risen in the Indian market and eventually impacted the market and helped it develop. Nevertheless, in our study we have taken twelve-year metrics (2008 to 2019) and found substantial results and built important relations. The three-way causality often shows that enhanced economic development metrics often attract FDI, and growth rate often encourages good foreign investment. India should concentrate on domestic, capital and inclusived evelopment. In the long run too much reliance on international capital is not attractive. However, while FDI has a positive effect in areas such as critical services, clean water, sanitation, and green energy, certain adverse environmental effects may exist for host countries (Aust, Morais, Pinto 2020).

Exhibit 6: Three Way Causality between FDI, Developeemnt & Growth in Indian economy.

Equation	Parms	RMSE	R-sq	chi2	P>chi2
SEDA	7	.349852	0.9895	938.9375	0.0000
FDI	7	5.21231	0.8784	72.23642	0.0000
GDP Growth	7	.471792	0.9554	213.9916	0.0000

- - -

L2. -0.23 0.10 -2.23 0.03 -0.44 FDI L1. 0.05 0.01 3.96 0.00 0.03 L2. -0.07 0.01 -5.85 0.00 -0.09 GDP Growth L1. 0.03 0.07 0.46 0.64 -0.10 L2. 0.22 0.04 5.05 0.00 0.13 cons 4.59 1.49 3.09 0.00 1.68 FDI SEDA L1. 0.45 1.51 0.30 0.77 -2.51 L2. 4.26 1.55 2.75 0.01 1.23 FDI	erval
L1. 1.08 0.10 10.62 0.00 0.88 L2. -0.23 0.10 -2.23 0.03 -0.44 FDI L1. 0.05 0.01 3.96 0.00 0.03 L2. -0.07 0.01 -5.85 0.00 -0.09 GDP Growth L1. 0.03 0.07 0.46 0.64 -0.10 L2. 0.22 0.04 5.05 0.00 0.13 cons 4.59 1.49 3.09 0.00 1.68 FDI SEDA L1. 0.45 1.51 0.30 0.77 -2.51 L2. 4.26 1.55 2.75 0.01 1.23 FDI L1. 0.45 1.51 0.30 0.77 -2.51 L2. 4.26 1.55 2.75 0.01 1.23 FDI L1. 0.12 0.20 -0.64 0.52 -0.51 L2. -0.35 0.17 -2.09 0.04 -0.68 GDP Growth L1. 2.79 0.99 2.82 0.00 0.85	
L2. -0.23 0.10 -2.23 0.03 -0.44 FDI L1. 0.05 0.01 3.96 0.00 0.03 L2. -0.07 0.01 -5.85 0.00 -0.09 GDP Growth L1. 0.03 0.07 0.46 0.64 -0.10 L2. 0.22 0.04 5.05 0.00 0.13 	
FDI L1. 0.05 0.01 3.96 0.00 0.03 L2. -0.07 0.01 -5.85 0.00 -0.09	1.28
L1. 0.05 0.01 3.96 0.00 0.03 L2. -0.07 0.01 -5.85 0.00 -0.09 GDP Growth L1. 0.03 0.07 0.46 0.64 -0.10 L2. 0.22 0.04 5.05 0.00 0.13 cons 4.59 1.49 3.09 0.00 1.68 FDI SEDA L1. 0.45 1.51 0.30 0.77 -2.51 L2. 4.26 1.55 2.75 0.01 1.23 FDI L1. 0.12 0.20 -0.64 0.52 -0.51 L2. -0.35 0.17 -2.09 0.04 -0.68 GDP Growth L1. 2.79 0.99 2.82 0.00 0.85	-0.03
L1. 0.05 0.01 3.96 0.00 0.03 L2. -0.07 0.01 -5.85 0.00 -0.09 GDP Growth L1. 0.03 0.07 0.46 0.64 -0.10 L2. 0.22 0.04 5.05 0.00 0.13 cons 4.59 1.49 3.09 0.00 1.68 FDI SEDA L1. 0.45 1.51 0.30 0.77 -2.51 L2. 4.26 1.55 2.75 0.01 1.23 FDI L1. -0.12 0.20 -0.64 0.52 -0.51 L2. -0.35 0.17 -2.09 0.04 -0.68 GDP Growth L1. 2.79 0.99 2.82 0.00 0.85	
L2. -0.07 0.01 -5.85 0.00 -0.09 GDP Growth L1. 0.03 0.07 0.46 0.64 -0.10 L2. 0.22 0.04 5.05 0.00 0.13 cons 4.59 1.49 3.09 0.00 1.68 FDI SEDA L1. 0.45 1.51 0.30 0.77 -2.51 L2. 4.26 1.55 2.75 0.01 1.23 FDI L1. -0.12 0.20 -0.64 0.52 -0.51 L2. -0.35 0.17 -2.09 0.04 -0.68 GDP Growth L1. 2.79 0.99 2.82 0.00 0.85	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.08
$ \\ L1. 0.03 0.07 0.46 0.64 -0.10 \\ L2. 0.22 0.04 5.05 0.00 0.13 \\ \\ _cons 4.59 1.49 3.09 0.00 1.68 \\ \\ \hline FDI \\ SEDA \\ L1. 0.45 1.51 0.30 0.77 -2.51 \\ L2. 4.26 1.55 2.75 0.01 1.23 \\ \\ FDI \\ L1. -0.12 0.20 -0.64 0.52 -0.51 \\ L2. -0.35 0.17 -2.09 0.04 -0.68 \\ \\ GDP Growth \\ \\ L1. 2.79 0.99 2.82 0.00 0.85 \\ \\ \hline \end{tabular}$	-0.04
$ \\ L1. 0.03 0.07 0.46 0.64 -0.10 \\ L2. 0.22 0.04 5.05 0.00 0.13 \\ \\ _cons 4.59 1.49 3.09 0.00 1.68 \\ \\ \hline FDI \\ SEDA \\ L1. 0.45 1.51 0.30 0.77 -2.51 \\ L2. 4.26 1.55 2.75 0.01 1.23 \\ \\ FDI \\ L1. -0.12 0.20 -0.64 0.52 -0.51 \\ L2. -0.35 0.17 -2.09 0.04 -0.68 \\ \\ GDP Growth \\ \\ L1. 2.79 0.99 2.82 0.00 0.85 \\ \\ \hline \end{tabular}$	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
[-cons] 4.59 1.49 3.09 0.00 1.68 FDI FDI SEDA L1. 0.45 1.51 0.30 0.77 -2.51 L2. 4.26 1.55 2.75 0.01 1.23 FDI L1. 0.12 0.20 -0.64 0.52 -0.51 L2. 0.35 0.17 -2.09 0.04 -0.68 GDP Growth L1. 2.79 0.99 2.82 0.00 0.85	0.16
FDI FDI SEDA L1. 0.45 1.51 0.30 0.77 -2.51 L2. 4.26 1.55 2.75 0.01 1.23 FDI L1. -0.12 0.20 -0.64 0.52 -0.51 L2. -0.35 0.17 -2.09 0.04 -0.68 GDP Growth L1. 2.79 0.99 2.82 0.00 0.85	0.30
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FDI FDI L1. -0.12 0.20 -0.64 0.52 -0.51 L2. -0.35 0.17 -2.09 0.04 -0.68 GDP Growth L1. 2.79 0.99 2.82 0.00 0.85	7.30
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L1. -0.12 0.20 -0.64 0.52 -0.51 L2. -0.35 0.17 -2.09 0.04 -0.68 GDP Growth L1. 2.79 0.99 2.82 0.00 0.85	
L2. -0.35 0.17 -2.09 0.04 -0.68 GDP Growth L1. 2.79 0.99 2.82 0.00 0.85	0.26
 L1. 2.79 0.99 2.82 0.00 0.85	-0.02
 L1. 2.79 0.99 2.82 0.00 0.85	
L1. 2.79 0.99 2.82 0.00 0.85	
L2. 0.29 0.64 0.46 0.65 -0.96	4.73
	1.54
_cons -129.39 22.13 -5.85 0.00 -172.77 -	-86.02
_cons -129.39 22.13 -5.85 0.00 -172.77 -	00.02

	SEDA						
	L1.	0.93	0.14	6.77	0.00	0.66	1.19
	L2.	-0.94	0.14	-6.74	0.00	-1.22	-0.67
	I						
	FDI						
	L1.	0.09	0.02	5.27	0.00	0.06	0.13
	L2.	-0.11	0.02	-7.40	0.00	-0.14	-0.08
	I						
GDI	P Growth						
I							
	L1.	0.74	0.09	8.27	0.00	0.57	0.92
	L2.	-0.63	0.06	-10.87	0.00	-0.74	-0.51
	_cons	6.65	2.00	3.32	0.00	2.72	10.57

Granger causality Wald tests

+				+
I	Equation	Excluded chi2	df F	Prob > chi2
		+		·····
I	SEDA	FDI 43.279	2	0.000
I	SEDA	GDP Growth 25.844	2	0.000
I	SEDA	ALL 107.79	4	0.000
		+		
1	FDI	SEDA 42.334	2	0.000
I	FDI	GDP Growth 8.2037	2	0.017
I	FDI	ALL 47.718	4	0.000
		······+		
I	GDP Growt	h SEDA 48.408	2	0.000
I	GDP Growtl	h FDI 71.349	2	0.000
I	GDP Growt	h ALL 101.86	4	0.000
+				++

Source: Calculated by the Author

Exhibit 6: Summary Table of FDI and Development in the Indian economy

Relationship with FDI	Correlation	Impact of FDI (Linear Regression, Het corrected Standard Error Model) Significantly Positive		
SEDA (Overall DEV)	Medium Positive			
Income	Medium Positive	Significantly Positive		
Economic Stability	Medium Positive	Significantly Positive		
Employment	Low Negative	Insignificant (Negative)		
Health	Medium Positive	Significantly Positive		
Education	Medium Positive	Significantly Positive		
Infrastructure	Medium Positive	Significantly Positive		
Equality	Low Positive	Insignificant (Positive)		
Civil Society	Medium Positive	Significantly Positive		
Governance	High Positive	Significantly Positive		
Environment	Medium Negative	Significantly Negative		

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PARALLELISM IN EMERGING MODES OF WORK: A SYSTEMATIC LITERATURE REVIEW FROM EMPLOYEE PERSPECTIVE

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Abstract

Following the recently broke pandemic, every organization in the globe is dealing with a global crisis in the varied fields. This has necessitated the need for improved and advanced working methods to cope with the losses incurred. As a result, alternative work modes are to be looked for to increase productivity. Does opting for remote or hybrid work mode increases employees' productivity or is it making employees unproductive? Hence, the purpose of this study is to (a) identify employees' most preferred mode of work; (b) identify employee productivity in case of remote or hybrid work mode of work. In order to seek answer to the above questions, a systematic literature review was conducted reviewing 20 research papers, which includes studies related new normal culture of opting remote or hybrid work mode. While reviewing the research on alternative mode of work, It became observed that almost all of personnel have coped up well to the work from home (WFH) culture and intend to continue with the same that actually has helped in increased employee productivity. The paper concludes with setting out potential research paths, allowing practitioners and academician to do additional research.

Keywords: Alternative Work Modes, Hybrid Mode, Work from Home

1. Introduction

Modern living comes with plenty of demands. The way we work, relax, and play has evolved drastically over time. Both parents will generally work in a contemporary family to satisfy the needs of their demanding lifestyles. The idea of 'me' has often turned out to be muddled due to the needs placed on our life. Because of the Coronavirus epidemic, the year 2020 has been a turbulent one. It has seen a whole lot of employees working from home. As we move forward, it has sparked a dialogue about hybrid working as a sparkling new paradigm. Many people believe it is the best approach to reclaim the lost work-life balance in conjunction with improved productivity towards work. Some employers have allowed employees to continue working from home. Others have called employees back to work on specific timetables and in staggered groupings.

Others, on the other hand, leave it entirely up to employees to decide where they will work. Hybrid offices integrate the benefits of shared work-spaces and remote working, however it is no longer easy to come up with a strategy that works for everyone and very importantly guarantees productiveness of the employees.

The emerging concepts considered to be the new normal or new norm for modern workplaces, specifically post Coronavirus epidemic situations put up questions on models like, WFH or blended or hybrid mode of work being better work structures keeping in view the work-life balance it offers which ultimately adds up to the productivity of the employees. Though the employees have been more flexible in their approach towards completion of their work, still they are more involved in attainment of goals along with spending time with family and friends, traveling and relaxing. In the remote working culture, employers keep the employees engaged in work out of the usual office hours and the employees still work keeping in view the comfort they have while working at home with family, while relaxing at home.

Several studies on hybrid work models, WFH culture, and the post-pandemic work environment have been conducted. However, it is crucial to examine the impact of these flexible workplace modes, as well as the impact of incorporating the flexible workplace mode, on employee productivity. Is it making them carefree, rearranging their schedule beyond the customary office hours? The point of this study is to evaluate the employees' decisions as their preferred mode of work. Furthermore, assess if picking a desirable mode of work impacts employee productivity, following a review of research in this area. However, there is a need to study the effect of these new work modes and impact of inclusion of the remote or hybrid work mode on the productivity of employees

This paper consequently proposes to satisfy the subsequent objectives:

- 1. To identify choice of employees as their most preferred mode of work.
- 2. To understand whether opting for a desirable mode of work affects productivity of employees.

Conducting a scientific literature evaluation constitutes a complete method to map out the theoretical views in addition to the theoretical practices (i.e. building, testing, absence) winning within the field.

Overall, this paper makes two contributions. First, it casts light upon the emerging work culture, pointedly the blended or hybrid mode of work. Second, it offers an assessment of employees' choice and productiveness retaining in view the newly emerged mode of labor primarily based at the studies review. Finally, it shows the compilation of several researches and study of a few surveys made by renowned statistical forums on productivity of employees citing mode in which they perform work.

The paper is framed as follows:

First, we cast light upon the meaning of alternative mode of work, thenafter introduce broader issues over the query of adoption and effect of this new normal in work culture.

A. The subsequent phase gives information about the methodological technique followed to conduct the literature review.

Finally, following the presentation of key findings, the paper discusses about the future research directions.

2. What is meant by mode of work?

While the year 2020 will be remembered as an extremely difficult year for the vast majority of people, there have been many good changes in the way we work, with flexibility and overall employee well-being being the focus of most organizations. Coronavirus epidemic accelerated digital and virtual transformation, with businesses evaluating fresh data and facts to show that work could be done from home. As a result, it will be critical in 2021 to continue some of the fundamental work-related innovations that emerged during the epidemic, such as the use of technology and the emergence of flexible working patterns. An alternative work model is one wherein an employee's time table consists of each in-workplace and far off work. Employees have the choice of operating from domestic every so often and entering the workplace on other occasions. Each business enterprise creates an alternative version relying at the company's desires in addition to the employee's demands. The personnel planning alternative model lets in selection makers to observe the future boom of a particular team of workers.

3. Emerging concept of choice of mode of work amongst employees:

Evidence suggests that firms benefit significantly from people who achieve work-family balance, many employees find it difficult to attain (Ferguson, et al, 2012). An alternative workforce model making plans permits choice makers to evaluate the future increase of a labor system. It suggests how diverse HRM strategies, along with elevating the retirement age, can have an effect on each the group of workers and organization's overall performance. (Block, 2016). Many organizations are prioritizing the identification of impediments to well-being and job performance, as well as enablers, in a time when employees must quickly transition to WFH (Galanti, 2021). During WFH, employees dramatically increased their typical working hours. Much of this was due to working earlier in the morning and later in the evening. At the same time, output, as measured by the employer's principal performance measure, fell slightly. Researchers estimate that average employee production per hour of work has decreased by 8-19% as a result of these factors. After switching to WFH, the effects on work time and production become apparent almost immediately. The outcome measurements, on the other hand, did not change before WFH was applied at the onset of the epidemic. (Gibbs, 2021).

Technical advantages and disadvantages have a direct impact on an individual's productivity. Work from Office (WFO), according to 63.9 percent, is on the rise. The breadth of efficiently offering the service, which 48.5 percent of respondents believed WFO provided better monitoring is needed for them. According to 61.1 percent of respondents, WFO provides faster networking chances. In addition, Employees believe that having a sense of belonging keeps them motivated at work, and 42 percent say that WFO gives them a sense of security. WFO, on the other hand, has no such technological drawback. (Joarder and Mustafi, 2021).

4. Methodology and Data Source

This paper is primarily based upon a scientific evaluation of 20 articles recognized in relevant journals throughout the fields of management, human resources, vocational behavior, new technology, work and stress, time and society, urban economics, innovation management, managerial psychology and information systems. Because of its methodical approach, a structured literature overview varies from a greater narrative overview in that it consists of a complete description of the techniques accompanied to choose, scan, and examine the literature, with the purpose of reducing biases and improving transparency. Integrating a whole lot of various works at the identical issue, summarizing the same components, contrasting the differences, and lengthening the work in some manner is feasible with systematic literature reviews. This literature review gives an overview of the various surveys and analyses conducted on the introduction of new work modes and employees' reactions to them. It does not claim to cover all of the literature; rather, it provides an insightful and targeted examination of carefully selected literature that will help to answer the research questions previously outlined.

In order to outline the scope of the review, the authors agreed upon the term to be covered, the subject matters in addition to the journals to be included. We searched for articles spanned between 2020 to 2021 in order to get the background of the concept of WF or remote working culture. However, the first article with regard to mode of work was found in (DuBrin,1991) but our study is confined to the time range of 2020 to 2022. For the review purpose the articles of 2020 to 2022 were given due emphasis. The initial step was to find relevant material. Factors such as (a) wherein articles had been discovered, (b) when the search was carried out, (c) who carried out the search, (d) how the articles had been discovered, (e) what number of articles seemed and the final range of decided on articles, and (f) why the articles had been subsequently selected are all a part of the literature discovery method. (Callahan, 2010) and (Kim, 2012).

This research utilizes Google Scholar's database to find out as many relevant literatures as feasible. In December 2021, the first author used the above-mentioned database to conduct the initial search. This research focuses on the association between alternate ways of work and employee performance when it comes to keyword combinations. As a result, the search keywords chosen were (a) Work from home, (b) Remote working, and (c.) Hybrid work.

To clarify the scope of the review, this research looked at review articles published in English that contained any of the exact keywords in the abstract, title, or body of the work.

The aims of this study were evaluated using documents published between January 2020 and March 2022. Through Google Scholar's Advanced search utilizing the above specified keywords and the following keyword combinations and filters: custom time period, ordered by relevance found 678 articles. The databases were reduced to 269 articles, which were examined individually for keywords in the titles. After reading the abstracts, it was further reduced to 64 articles, and eventually to 39 articles after reading the full papers; of these, 20 articles or papers were chosen to be considered in this study, as presented in table 1.

Keywords	Keyword	Title	Abstract	Full Paper	Final Papers
	Search	Search	Search	Search	Selected
Work from	350	154	42	27	10
Home					
Remote	272	102	15	7	7
working					
Hybrid work	56	13	7	5	3
TOTAL	678	269	64	39	20

Table 1: Number of Articles Search based on keyword

Source: Author's own calculation based on searches attempted

The staged review, that's a way of inspecting the literature that includes first conducting an preliminary evaluation of abstracts after which carrying out an intensity evaluation of articles (Torraco, 2005), then after use it to investigate the 64 papers that have been determined to be applicable to the contemporary study's goal. When doing the staged review, the primary focus was on whether an article experimentally or conceptually analyzed and discussed the hybrid mode of work, as well as employee performance or productivity. The papers had been eliminated if the abstracts ambiguously provided the connection without offering thorough or relevant discussion. Figure 1 shows how this method resulted in the selection of 20 publications for this investigation.

The first article with regard to mode of work was found in (DuBrin,1991). The number of publications indicates that post-Corona Virus Disease outbreak, when the work-from-home culture became the new normal, research on modes of employment other than formal work patterns began to acquire traction. (Galanti, et al, 2021, Kramer, 2020, et al, 2021, Gibbs, et al, 2021, Deng, et al, 2020), Figure 2 depicts the frequency of publications since 2020, emphasizing the subject's importance.

To avoid duplication, the search results were double-checked. A closer examination of the abstracts revealed the difference between articles that were relevant and those that were not. To make data administration easier, all of the papers for this study were kept in the reference management software Endnote. The References section has a complete list of articles. We've taken a number of precautions to assure the study's trustworthiness and quality. To decrease bias and increase reliability, the authors conducted the study in numerous rounds, both independently and together.



Figure 2: Frequency of articles based on the following keywords in the title (2020-2022)

(Source: Author's own calculation based on searches attempted)

5. Findings and Discussion

The contemporary-day form of far off or hybrid work mode lets in people to work from anywhere, permitting them to stay in their favored geographic area. Work-from-anywhere (WFA) programs provide each temporal and geographic freedom, while ordinary work-from-home programs simply provide temporal flexibility. WFA have to be taken into consideration as a non-economic gain that people who could benefit extra utility via way of means of moving from their present-day geographic area to their ideal vicinity might prefer. (Choudhury, et al, 2021).

The traditional boundaries that have defined organizational life are disintegrating and becoming more permeable; as a result, research efforts are required that incorporate a more complex knowledge of all the systems that affect employees and the workplace.

These findings have the potential to considerably broaden the topic of study for work–family scholars beyond just the employee (Ferguson, et al, 2012). People can now conduct work from home that they might formerly best do at the company's premises due to the fact to the great availability of low-value workplace system which includes private computers, modems, photocopiers, fax machines, and voice mail. Finally, developing dissatisfaction with lengthy hours away from home, in particular lengthy commutes, has ended in a great percent of humans favoring working from home (DuBrin, 1991).



Figure 1: A PRISMA flow chart (Liberati, 2009) showing the results of the systematic literature search

Some personnel discovered it pretty easy to shift to remote work. However, many roles make it not possible to adopt ordinary work operations from home, prompting many people to live inactive or are searching for new employment. (Bick, et al, 2020). WFH is a perception this is speedy turning into a trend in the corporate world. The pandemic has proved that WFH is a feasible enterprise system for making sure enterprise continuity and offering personnel with a work-life balance. It additionally has good sized financial and productiveness advantages. WFH, on the opposite hand, cannot be considered as a therapy for all organizational issues. It ought to be applied with warning to make sure that group of workers are nicely trained, motivated, and prepared to offer the preferred results. (Kaushik and Guleria, 2020).

Working styles have determined to be notably altered because of WFH. Employees labored longer hours,
OPJU BUSINESS REVIEWVOL 1 ISSUE 171

regularly outdoor of everyday workplace hours, but they had less undisturbed time to finish duties due to the fact they spent greater time in meetings. They spent much less time being examined, instructed, and mentored and spent much less time networking. These reductions had been additionally discovered to be negative to productiveness, mainly in phrases of focus hours and networking. (Gibbs, et al, 2021). Another study states that for starters, WFH become practiced via way of means of about 32% of personnel. In the worker survey, the WFH intensity (i.e., the contribution of WFH to general exertions input) become round 19%, at the same time as in the organization survey, it become around 11%. Second, tremendously educated, high-salary white-collar people in metropolitan places had been much more likely to apply WFH, suggesting that contamination danger and social distancing regulations might also additionally irritate financial disparities amongst personnel. Third, the common WFH productiveness become round 60% - 70% of the production at corporation places. Despite the truth that Coronavirus epidemic has introduced interest to the WFH practice, personnel' productiveness become decrease than in the regular workplace, at the least on common. (Morikawa, 2022).

According to Owl Labs⁴, Remote employees are 1.8X much less effective than on-site people. Remote people record operating 43 percentage greater hours consistent with week than on-site personnel. Working from domestic will increase productiveness for 77% of remote people. 83 percentage of survey individuals experience that being capable of WFH could cause them to happier. A survey performed via way of means of LinkedIn states that, almost 60% of Dell personnel work flexibly, and personnel who work remotely have a Net Promoter Score that is 20% better than folks who do not. The capability to move between employment greater speedy and get better greater speedy from financial shocks exacerbates exertions marketplace segmentation. The interplay of expert and private elements has huge studies and alertness consequences. Moving to WFH preparations might also additionally necessitate the choice of people who're higher suitable to WFH, training of such people on greater efficient remote work methods, and accelerated tracking of the high-satisfactory and productiveness of these assigned to WFH while character traits trump occupational traits. (Kramer, and Kramer, 2020).

SWOT analysis was utilized in another study to portray WFH's strengths, weaknesses, opportunities, and threats. It was discovered that 85.86 percent people can access the internet, indicating that working from home is accessible to the majority of the population, regardless of whether they live in a rural or metropolitan region. (Joarder and Mustafi, 2020). An insight of the findings of the aforesaid study is mentioned in Figure 3 below.

6. Future Research Agenda

In order to achieve WFH and WFO proportionately at work, a combination model must be built that takes into account the conclusions of this article in terms of employee preferences and productivity. Keeping in view the emerging changes in the workplace setup and culture, there is need to study the future prospects and scope

while adopting to the combination model. Also, the usefulness and longevity of such model must be analyzed and practical implications needs to be emphasized more than the theoretical aspect as the formulation and incorporation of such model is need of the hour, mostly in the post pandemic situation. Many researches have aimed at highlighting about the impact of alternative work modes availability and employee responses towards it, with reference to such studies, the applicability of these work modes at intersectoral work places must be thoroughly evaluated.

	Work from OFFICE	Work from HOME		
Strengths	Networking opportunities Effective Supervision Better work life balance Greater sense of Belonging Increased productivity and Team Collaboration Cafeteria / Small break for talks	Flexible arrangement / flexible work hours No office distraction Effective time management for self Familiar environment (reduced stress) No travel hours Curtailing unnecessary expenses Robust way of working attitude Increased work productivity		
Weakness	Lack of flexibility Monotonous Schedule Unnecessary distractions Time wasted in non-interesting meetings Irrelevant side conversations/ gossip Commuting expenses Travel time	Distractions (family members/household duties) Uncomfortable environment/ lack of conducive environment (e.g. living in a small space) Lag in query resolve/ Supervision Missing office get-togethers Delay in IT support Imbalance between work and personal life Ghosted by office colleagues Lack of discipline Lack of employee recognition (e.g. Good work! You re doing great by finishing this survey) Local Network disruptions Lack of clarity (WFH policies and regulation) Work exploitation (e.g. Increased work hours/ working on weekends) Lack of peace of mind		
Opportunities	Better onboarding	Work life balance		
Threats	Workplace conflict (e.g. office politics)	High competition (e.g. job may be outsourced) and Anxiety of job security		

Figure 3: SWOT Analysis for WFO and WFH

Source: Joarder and Mustafi (2020)

7. Conclusion

This study has supplied an outline of ways theoretical views are rising in the work subculture of lately. The overview confirmed that almost all of papers show an alternative model for implementation of unconventional mode of work in businesses citing the work-life balance and other effective parameters. (Dubey and Tripathi,

2020). Most of the articles are based on primary data collection, thus they present the first hand information for review and are considered reliable for review purpose. This study is a primary step closer to expertise the need for laying down varied options in work modes, and it encourages further analysis-es to complement the findings. It can be said that working remotely is highly effective and valuable, relying on factual information and statistics obtained from various reports, publications, and artifacts cited in this paper. Furthermore, enabling full-fledged remote working may not initially reduce productivity based on the data obtained, however in long-term remote working may make employees negligent. As a result, using an alternative or blended method of work that combines online and offline work environments will be effective and productive. Through the findings it can be said that organizations are required to use WFH extensively in the future, with combination of WFH and WFO on any given day. Productivity will undoubtedly improve as the company fine-tunes its deployment of WFH and transitions to a hybrid model with WFO. Furthermore, employees will have more flexibility and shorter commuting times, which will somewhat compensate for poorer output. The information in this document will be useful to those outside of this company. WFH may be more challenging for individuals with less experience, shorter tenure, and positions that require a lot of communication, collaboration, and coordination.

To improve the effectiveness of virtual communication, supervisors and employees must design tools, training, and rules that place a larger emphasis on human contacts during WFO and WFH, as well as train supervisors and employees to organize work time at home more efficiently.

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FIRST IMPRESSION IS THE LAST IMPRESSION. HOW A SMART CV IS BUILT?

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Abstract

The role of Smart CV's in recruitment of job seekers is very significant. Latest traits in recruitment procedures have verified that process applicants are an increasing number of the use of online Smart CVs in place of conventional approaches like hardcopy or emailing CVs so there is a need of understanding Smart CV, hence this study aims to understand how a smart CV is built while examining the important portfolios. It is important because it gives a chance to expose credentials possessed by a job seeker. It helps to sell the competencies and revel in, and indicates that the candidate is the right person for the job. Making an awesome affect is crucial in today's aggressive marketplace. The novelty of this study lies in that it helps the job seeking candidates to understand what a Smart CV's possess and what employers search in a CV, as we know that first impression is the last impression. When it comes to recruitment and selection Smart CV possess a valuable role. So having the idea of Smart CV is needful in today's time. Summarizing and analyzing 34 literature reviews explains this paper.

Keywords: Smart CV, Portfolios, Job Hunting

1. Introduction

Carrier making plans is always a hard challenge (Gati et al. 2011). While planning one's career the main thing out of all which mirrors an individual image is CV. A successful CV requires thoughtful guidance to ensure it's far directed closer to a specific post and must take into account important views. First, a knowledge of what is required (demand), and second, what can offer in phrases of his or her abilities, experience, traits and qualifications (supply). Nowadays employers are widely using Smart CVs instead of traditional CVs.

A CV, a record that individuals use to show their academic and professional achievements. It is used to fill positions within areas where specific personal information or knowledge is required. A brief record that gives you an opportunity to expose a business that may have the best of what you have.

S.M.A.R.T. Abbreviation Specific, Measurable, Attainable, Risky, Timely. This goal setting program can be used to create your CVs and marketing campaigns. Therefore, it is incredibly helpful to ensure that your success is normal. A smart CV is a type of e-Portfolio carrier that helps job hunters. People can often develop smart CVs in order to get better job opportunities.

CV is the primary thing a potential employer will see in figuring out whether or not to call a candidate for an interview. The CV, consequently, is vital for the achievement in job seeking. A CV need to be strong, straightforward, and easy-to-examine, highlighting achievements and accomplishments.

No matter what the priority, individuals can find many types of achievements and qualities throughout their lives and thus portfolios contribute to better performance plans and helps to build a great CV (Barr and McNeilly, 2002). Unfortunately, researchers have never studied the level at which people generally consider the categories of qualifications like. internship knowledge, exchange experience, scholarships, participation in competitions, academic performance, and participation in extracurricular activities as important portfolios to build smart CVs.

Hence, the purpose of this study is to identify and determine which types of portfolios can be used to build a smart CV. The donation of this paper provides suggestions for directing job seekers to build a strong and impressive CV for seeking job successfully.

2. Literature Review

Previous research has sought to identify factors that affect individual employment (Finch et al. 2013). It has been noted that in addition to academic performance, international exchange experience (Norris and Gillespie, 2009), scholarships (Brown and Campion, 1994; Hutchinson, 1984), internship experience (Gault et al., 2010), participation in competitions (Abernathy and Vine 2001; Mitchell et al. 2010) and participation in extracurricular activities (Cole et al. 2004; Tsai et al. 2011) are the qualifications that construct the structure of a Smart CV and thus helps to seek the best employment results. Okoro et al. (2011) revelled that regular CVs submitted as hard copies will be replaced by smart online CVs or electronic Portfolios.

Cheung et al. (2015) have observed a positive relationship between 3 P's - portfolio, presentation, presence with seeking employment. In this study, authors aimed to identify sections of portfolios that are considered important in building a smart CV. Based on the available literature, it has been found that knowledge of internships, exchange experience, scholarships, participation in competitions, academic excellence, and extracurricular activities are very important while developing an effective CV.

(i) Portfolio: Defined as "formal, driven by the goal of professional development and acquired skills" (Campbell et al. 1997, p.3). A smart CV portfolio is similar to the content of a resume that contains art objects, exhibitions, personal power, and much more.

(ii) Presentation: It is a way for individuals to present their portfolios in a visual way as a way to create a fastpaced look and feel for smart CV viewers.

(iii) Presence: Refers to making a personal CV available online. With the advent of web 2.0, digital culture has become the norm and marks one's online presence, identity and footprint through the purposeful or common use of information and communication technology, social media and search services.

CV's are the first contact with employers so it is important to get it right. Few important things were identified

after reviewing the literature which needs to be followed while building a Smart CV.

- A mistake-free CV says you are expert and care the way you come across (ask a pal to examine it through)
- 2) Do not simply write a description of your work; state how you make a difference in the workplace, or describe a university job
- Different jobs require different strengths: a bit studies allow you to highlight relevant strengths for a particular position
- 4) Bullet points make it less complicated to scan for key competencies
- 5) Keep it brief and simple: not more than 2 pages
- 6) Don't leave gaps: say what you learned from the experience.

3. Research Methodology

This systematic literature review starts with identifying articles and research papers from various databases. Authors reviewed and summarized 34 research papers before coming to the conclusion. Summarizing and verifying all the related papers cover main part in this research method. The results derived from different related articles were somehow favouring the objective of this study. The main purpose of writing this paper is to highlight the construction and outline which method works best for building a smart CV.

Reports on Smart CV have appeared in a comparatively scattered collection of publications. To achieve the study goals, the systematic literature review technique was used, which has been suggested for rigorously mapping out the existing state of research in the field as submissions are searched, reviewed, and synthesized using a pre-determined explicit protocol (Pilbeam et al., 2012). This protocol guarantees a straightforward and impartial analysis methodology in the entire research domain. The first move was to select relevant literature. The literature discovery method involves factors such as (a) where the articles were found, (b) when the search was conducted, (c) who conducted the investigation, (d) how the articles were found, (e) how many articles appeared and a list of selected articles, and (f) why articles finally selected (Callahan, 2010; Kim et al., 2012). This study used two databases i.e. Scopus and Google Scholar, to extract as many important articles as possible. Associated with a combination of keywords, the main focus of this study is on smart CV. To clarify the scope of the experiment, this study focused on peer-reviewed articles posted in English in which any key phrases appeared directly within the abstract, title, or full paper.

This study considered documents published between January 2000 and December 2020. The preliminary search carried out using the key-word combinations yielded 279 articles throughout the databases which reduced to 215 articles individually scrutinizing the titles for the keywords. It was further reduced to 137 articles after reading the abstract and finally reduced after reading the full papers to 70 articles as relevant to the context along with reducing duplicate articles available in multiple sources through a direct search making it 34 articles to be considered in this study as mentioned in table 1.

	Keyword	Title	Abstract	Full Paper	Final Papers
	Search	Search	Search	Search	Selected
Scopus	153	119	75	41	19
Scholar	126	96	62	29	15
Total	279	215	137	70	34

Table 1: Number of Articles Search

Finally, a systematic method using preliminary abridged summaries and then completed an in-depth review of the essays (Torraco, 2005), was used to review the 279 searched articles relevant to the current reading topic. If an abstract explains a topic easily or ambiguously without in-depth or relevant discussion, articles were not included. Duplicate topics were also deleted. In this way, 34 articles were finally selected for this study, as shown in Figure 1.



Figure 1: A PRISMA flow chart (Liberati, 2009) showing the results of the systematic literature search

4. Result and Discussion

In this dynamic world and the knowledge-based economic system, science and technology is not only a source of international competition but also a focus of corporate competition. The most important competition within science and technology is associated with human resources. As a result, hiring and retaining the right talent to develop the company has become central to the origins of sustainable development and competition. Traditional employment emphasizes matching people with positions. Personal understanding, skills, and OPJU BUSINESS REVIEW VOL 1 ISSUE 1

abilities are essential to following and fulfilling the ambitions of the position in the best possible way. through all the research and testing of many research papers, it is found that people have realized that work experience, and participating in competitions are the important portfolios to build their smart CVs. As a result, college teachers, especially program leaders, are advised to provide additional assistance and advice to students to improve those areas. For example, instructors may encourage individuals to enroll in competitions and teach important management skills like leadership skills, analytical skills, coping skills etc in order to improve individual chances of qualifying and winning competitions. Students must be encouraged to attend business conferences to improve their understanding and applications in the workplace. In addition, educational institutions may also organize additional extracurricular activities to enhance their knowledge and skills outside of their academic fields. Developing industry linked curriculum will lead students to add short- & long-term internships in their portfolio which help students to enhance their skill related workplace management. Finally, study leaders may also organize additional training or review groups for individuals to improve their overall academic performance.

A well-crafted CV can be the difference between getting an interview for the dream job or not, so understanding what is needed to write and how to do it is very important for success. CV is the first thing an employer will have to carry on, So working hard to build an effective smart CV is the need of the hour. CV's are used to let the employer see what they need to know about all the credentials of a candidate in terms of education, achievements, skills and abilities.

Job seekers need to keep in mind that CV is unique to everyone and the above portfolios are only that guidelines. It has been noticed that CVs that deviate from the usual layout are generally rejected by the employer at the first place. Job seekers must be encouraged from all levels to build an effective smart CV, moreover, they should be internally motivated enough to understand its importance by the fact that they have only one opportunity to make a winning first impression.

5. Conclusion

This study is initial research of numerous portfolios for constructing smart CVs. The main goal of this study is to understanding how to build a Smart CV. Current study findings have shown that each employers give important to CV's at first place. The motive of a smart CV is to introduce oneself to employers, and off course the first introduction must be impressive.

Smart CV is the first interface between the job seeker and the employer which can make a positive impact on employer and helps to define the reason to select for the vacant position. Hence, it can be considered as one of the most essential steps taken throughout a job search as it helps to get Interview call which is first step to a dream Job. A Smart CV has to be like a platter full of yummy dishes, very precise as per the requirement of the customer (in this case employer). Employer use CV all through the hiring process to analyse more about the job seeker and to decide whether or not the candidate is a great match to the vacant position. CV need to be smooth to understand, clearly summarize accomplishments and abilities and highlight relevant experience. OPJU BUSINESS REVIEW VOL 1 ISSUE 1

The purpose of building a smart CV is to exhibit your experience, academics, and abilities in a standardized layout which is easy for employers to examine. Mostly, people only ever consider their CV when they're searching out a job. It's obviously quite essential in those situations, but it needs updation and breathe among roles to make sure it's always updated and displays the excellent possible version of oneself. While applying for job, it can actually be the difference between your life going one manner or some other. It's a sum that stars you alone, so needs to be proven within the excellent possible light.

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• An abstract (about 100 words), a brief biographical sketch of above 100 words for authors describing designation, affiliation, specialization, number of books and articles published in the referee journals, membership on editorial boards and companies etc.

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