

Sankalpa means Decision,
Determination that a true manager or leader must make every day...

Indexed in  (USA)
www.proquest.com



A Peer - Reviewed Journal

Since 2011

ISSN No. 2231-1904

January -June * Vol. 13 : Issue 1

SANKALPA

Journal of Management & Research

SANKALPA : Journal of Management & Research

aims at bringing out the intricacies of Management perspectives, concepts, and applications. The focus is on Indian Management and its interplay with Global Management knowledge, best-practices and research.



Estd : 2009

SHRI MAHAVIRA JAINA VIDYALAYA EDUCATION FOUNDATION

C. K. Shah Vijapurwala Institute of Management



Shri Mahavira Jaina Vidyalyaya Campus, Nr. Goyagate Circle, R. V. Desai Road, Vadodara-390004. Gujarat, INDIA.

EDITORIAL BOARD MEMBERS LIST - SANKALPA

Journal of Management & Research (As on June 2023)

Editorial committee

Dr. S. O. Junare
Dr. Sunita Sharma
Dr. Bhavin Pandya
Dr. Trupti S. Almoula
Dr. Sandip Solanki
Dr. Vijay Vyas
Dr. Pradip Manjrekar
Dr. Prashant Warke
Dr. Ashok Kurtkoti
Dr. Kamal Taori
Prof. Mashtaq Darzi
Dr. Saurabh Mehta
Dr. Panatula Murali Krishna
Dr. Dharmesh Raval
Dr. Abhijeet Chatterjee
Dr. Priti Nigam
Dr. Parag Shukla
Dr. Preeti Singhal
CS. Divyesh Patel
Dr. Stuti Trivedi
Dr. Kshitij Trivedi
Dr. Meghna Shah
Dr. Rima Parikh
Dr. Kunjal Sinha
Dr. Savitha K.
Dr. Prakash Patel
Dr. Ranjita Banerjee
Dr. Manish Pathak
Dr. Mitsu Patel

International Board of Scholar-Reviewers

Dr Friedrich Augenstein, Germany
Dr Ramesh Shah, Germany
Dr Samo Bobek, Slovenia
Dr Sameer Rohadia, Germany
Prof. Dr. Zdzislaw Polkowski, Poland
Prof. Arkadiusz Januszewski, Poland
Prof. Dr Julian Vasilev, Varna, Bulgaria
Prof. Dr. Dariusz Zajac, Poland
Prof. Dr. Tran Ngoc Tuan, Vietnam

Support Team

Dr. Keval Patel
Mr. Gaurang Badheka
Ms. Dhara Joshi
Ms. Krishna Bhatt
Ms. Ishita Jajal
Ms. Bhumi Parekh
Ms. Ashita Agrawal
Ms. Unnati Thakkar
Mr. Rushabh Sanghvi
Mr. Jayesh P Makwana
Ms. Bhavika Shah

Name	Affiliation	Email ID
Dr Kerav Pandya, Editor in Chief	Director & Prof., CKSVIM	director@cksvim.edu.in
Dr Rimple Gamadia Principal Asst. Editor	Assistant Professor, CKSVIM	rimple.gamadia@cksvim.edu.in

EDITORIAL BOARD MEMBERS

Prof.(Dr.) Parimal H Vyas	Provost, AURO University	parimalvyasmsu@yahoo.co.in
Dr Rajesh Khajuria	Founder Director, CKSVIM (Retd.) Co-Chair, Diploma Board, ISTD	dr.khajuria@gmail.com
Dr Satendra Kumar	Prof. & HOD (Retd.), Dept. of Management, VNSGU	satendrakumar1945@yahoo.in
Dr A K Sengupta	Founder & Convener, Higher Education Forum	aksengupta51@gmail.com
Prof. (Dr) Jayrajsinh D Jadeja	Vice Chancellor, Krantiguru Shyamji Krishna Verma Kachchh University, Kachchh Past Dean & Prof., FMS, The M S University of Baroda	vc@kskvku.ac.in
Dr Nilay Jainik	Professor & Director Executive Education, JIO Institute	nilayjainik@hotmail.com
Dr. Viral Bhatt	HOD, Sal Institute of Management	viral.bhatt@sal.edu.in
Prof. (Dr) Kamlesh Joshipura	Prof., Dept. of Law, Saurashtra University, Rajkot	kpjoshipura@gmail.com
Prof. O S Gupta	Retd. Professor	osgupta75@rediffmail.com
Mr Thothathri Raman	Founder, SEAA Trust, Delhi	atraman@gmail.com

APPEAL TO THE AUTHORS AND CONTRIBUTORS

The members of the Editorial Board appeal to all the academicians and practitioners to communicate their 'Reporting' to the Editor-in-Chief for publication in our subsequent issues, through the e-mail ID : publications@cksvim.edu.in

Disclaimer : Articles and views expressed are from their respective authors and the publisher or printer has no role to play. The publisher or printer shall not be held responsible for any mistake or plagiarism on the part of authors.

Please Send Articles to : publications@cksvim.edu.in

IMPACT FACTOR : 6.018 (ISRA:JIF)

Published by:

**C K Shah Vijapurwala Institute of Management
Shri Mahavir Jaina Vidyalyaya Campus**

Design & Printed by : Sri Shyam Graphic, Vadodara-390 001.



SANKALPA

From the Heart of Editor-in-Chief...



Dear Subscribers, Readers and Authors,

Dear Subscribers, Readers and Authors,

It is with great pleasure and enthusiasm that I address you today as the Editor-in-Chief of our esteemed research journal. First and foremost, I want to express my deepest gratitude to all the researchers, scholars, and contributors who have entrusted us with their groundbreaking work. Your commitment to advancing knowledge and pushing the boundaries of your respective fields is truly inspiring. Together, we have built a vibrant community dedicated to fostering scientific excellence.

I am pleased to announce that our research journal has reached new heights in terms of both quality and impact. Our publication has garnered recognition and respect from the global research community, attracting submissions from leading experts and institutions from all over the nation.

As we move forward, we remain committed to maintaining the highest standards of integrity and scientific rigor. We will continue to refine our processes, harness the power of technology, and embrace emerging trends to ensure that our journal remains at the forefront of scientific publishing.

I encourage all researchers to consider our journal as a platform to showcase their groundbreaking work and share their insights with the global community. In the present issue (Volume 13, Issue 1, January-June 2023) we have 10 research papers with a wide range of confrontational themes like Impact of demonetization on e-banking in India, Sectoral Contribution in GDP, Effects of In-Store Ambience and Aesthetics on Consumer Impulse Purchasing Behavior, Sharpe's Single Index Model and Its Application to Build an Optimal Portfolio, Efficiency of Nudges in E-Commerce and many more... The journal is continuously putting efforts to provide a massive platform for all readers and subscribers to boost their research knowledge.

Happy Reading!!

Best wishes to all,

Dr. Kerav Pandya

Director

Dream * Achieve * Conquer



Celebrations & Activities @ CKSVIM



Table of Contents
(SANKALPA- Journal of Management & Research)
Volume 13, Issue 1 : Jan - June. 2023

1	AN EMPIRICAL STUDY ON “ACCREDITATION AS A TOOL FOR ACHIEVING	
	- Dr. Jyoti Kumari and Dr. Punita Soni.....	01
2	EFFECTS OF IN-STORE AMBIENCE AND AESTHETICS ON CONSUMER IMPULSE	
	-Dr Divyang K Vyas and Dr Chetna D Vyas	14
3	A STUDY ON PERFORMANCE EVALUATION OF MUTUAL FUNDS SCHEMES IN INDIA....	
	-Nikee Mehta, Aastha Patel andDr. Krunal Patel.....	19
4	A STUDY ON CAPITAL STRUCTURE ANALYSIS OF SBI BANK.....	
	-Riddhi Adthakkar and Dr. Aabha Singhavi.....	25
5	EFFICIENCY OF NUDGES IN E-COMMERCE: AN EXPERIMENTAL STUDY.....	
	-Dr. Nandini Sengupta and Komal Kalra and Saeed Joshi.....	31
6	A STUDY ON SHARPE'S SINGLE INDEX MODEL AND ITS APPLICATION TO BUILD AN OPTIMAL PORTFOLIO	
	-Dr. Manishkumar R Pathak,	35
7	MEASURING THE AWARENESS REGARDING ADVERTISING OF GOOGLE PRODUCTS	
	-Drashti A. Patel and Shreyas K. Trivedi.....	45
8	ENHANCING CUSTOMER SATISFACTION WITH THE PRACTICE OF CRM IN	
	-Dr Rimple Gamadia.....	51
9	IMPACT OF DEMONETIZATION ON ADOPTION OF DIGITAL BANKING SERVICES IN	
	-Piyushkumar R. Maru.....	57
10	TITLE: RESTRUCTURING STRATEGIES OF INDIAN BANKS: A CASE STUDY	
	-Dr. Bhaskar Biswas.....	62
11	GUIDELINES FOR AUTHORS	69
12	GUIDELINES FOR CASE-STUDY.....	71
13	SUBSCRIPTION FORM.....	73



Motivational Quotes

"Success is walking from failure to failure with no loss of enthusiasm." - Winston Churchill

"A successful man is one who can lay a firm foundation with the bricks others have thrown at him." - David Brinkley

"Opportunities don't happen, you create them." - Chris Grosser

"Thinking should become your capital asset, no matter whatever ups and downs you come across in your life." - A.P.J. Abdul Kalam

"Success does not consist in never making mistakes but in never making the same one a second time." - George Bernard Shaw

"Success is ... knowing your purpose in life, growing to reach your maximum potential, and sowing seeds that benefit others." - John C. Maxwell

"To accomplish great things, we must not only act, but also dream, not only plan, but also believe." - Anatole France

"Nothing is impossible. The word itself says, 'I'm possible!'" - Audrey Hepburn

"The only person you are destined to become is the person you decide to be." - Ralph Waldo Emerson

"Encourage yourself, believe in yourself, and love yourself. Never doubt who you are." - Stephanie Lahart

"Keep your face to the sunshine and you cannot see a shadow." - Helen Keller

"It is better to fail in originality than to succeed in imitation." - Herman Melville



An empirical study on “Accreditation as a tool for achieving academic excellence for higher educational institution” with special reference to the states of Bihar & Rajasthan, India.



Dr. Jyoti Kumari: Assistant Professor, Department of Commerce, Rajendra College, (A Constituent Unit of Jai Prakash University), Chapra (Bihar) India, 13.jyotikumari@gmail.com

Professor (Dr.) Punita Soni: Principal, Leela Devi Parasmal Sancheti Kanya Mahavidyalaya, (Rajasthan) India, drpunitasoni11@gmail.com

Abstract

Gross domestic product is an economic barometer and helpful in framing appropriate policies for the success of any economy. There are various methods for the calculation of GDP among them one is the Expenditure method. According to the expenditure approach, GDP is equal to final spending (spending on the buying of final goods and services manufactured within the domestic territory) in an accounting year. This study is carried out to analyse the contribution of various components included in the Expenditure method in the GDP growth (2011-12 constant price) in India for the period 2001-02 to 2021-22. The component of the expenditure method includes Private Final Consumption Expenditure © Government Final Consumption Expenditure (G), Gross Domestic Capital Formation or Investment (I), and Net Exports (X-M). They are taken as the independent variable and GDP as the dependent variable. It is analyzed how and in what ratio these independent variables have a contribution to GDP. It has been found that all these independent variables are positively & significantly correlated with the dependent variable and Government Final Consumption expenditure has more influence on GDP as compared to other independent variables.

Keywords

Private Final Consumption Expenditure © Government Final Consumption Expenditure (G), Gross Domestic Capital Formation or Investment (I), Exports (X), Imports (M) and Gross Domestic Product (GDP)

Introduction

The national income of any nation is an important tool to measure the fitness of a country's economy as well as helpful in formulating appropriate policies essential for rapid economic development. Before independence, Dadabhai Naoroji was the first person who made an effort to compute the national income of India (in 1867-68) further VKRV Rao distributed the economy into different sectors and made the first systematic method in 1931-32. After independence, the national income committee was set up in 1949, headed by Prof. PC Mahalanobis.

National Income means the total monetary value of the final goods and services manufactured by any country during a specific time period (mostly its financial year). It is the result of all economic activities run in a nation. There are three methods for GDP calculation namely expenditure, production, and income.

According to the expenditure approach, GDP is equal to final spending (spending on the buying of final goods and services manufactured within the domestic territory) in an accounting year. It includes private final consumption spending, government final consumption spending, investment spending, and net exports (exports – imports). Private final consumption spending means spending by individuals, families, and non-profit private organizations on final commodities and services. Increasing trends towards private final consumption spending reflect the sound economic growth of the country as customers have complete reliance on the nation's economic policies and readiness to spend more. The second component of the spending method comprises spending by the government on final commodities and services for example money spend on equipment, infrastructure, and payroll. When consumer spending and business investment both turn down sharply then government expenditure plays a very crucial role in boosting the economic growth of the nation. The third component comprises expenditure by the manufacturers on those commodities which are to be further used in the process of production. It is a very significant component because it improves production capacity and helps in the reduction of the unemployment rate. The fourth component comprises the difference between exports and imports during an accounting year. It includes because exports are a part of domestically manufactured goods and services and if exports are more than imports, it indicates the sound economic position of the nation on the world map.

Hence, GDP according to expenditure method is summation of $C + G + I + TNE$. Where,

C = Private final consumption expenditure,

G = Government final consumption expenditure,

$I = \text{Gross Domestic Capital Formation}$

$(\text{Gross Fixed Capital Formation} + \text{Change in Stock} + \text{Valuables})$

$\text{TNE} = \text{Total Net Exports (Exports-Imports)}$

Literature Review

At the world level, number of studies has been conducted related to GDP, FDI, FII, DI, etc. by applying several statistical tools. Below mentioned are the reviews of some research:

made a comparative analysis to find out the effect of public spending and its components on the GDP of Israel and Bulgaria. Both countries have similar populations and territories but Israel's GDP is much higher than Bulgaria's. She concluded that Israel's public expenditures have a positive and stronger impact on GDP and principal device for stimulating economic activities and Bulgaria's GDP can be increased by using the positive experience of Israel.

Selected Tanzania as a representative and used the Keynes model for analyzing the GDP of Tanzanians from 1970 to 2009 for investigating the factors that work on the GDP growth of developing countries. He concluded that consumption and exports are the chief components that affect GDP growth and for consistent and rapid economic development these countries need to formulate policies that attract FDI and investment in industrialization. According to his study trade cycles, increase in oil prices, power scarcity, corruption, political instabilities, and wars are the reasons for the sinking GDP growth of least developed nations and this broaden the gap between rich and poor countries. For reducing this gap and for becoming self-reliant it is needed for developing nations to discover natural resources like oil, and minerals and promote exports.

Researched about factors affecting Economic Growth in Africa and are there any Lessons from China? In his study, he found that domestic investment, net ODA inflows, education, government effectiveness, urban population, and metal prices positively affect African economic growth whereas lack of skilled manpower, adverse trade balance, unemployment, poverty, inequality, dependencies on imports for consumer goods negatively affects African economic growth. Although Africa is a continent of 54 independent states with different institutional settings and varying socio-economic conditions as compared to China for formulating strategies to achieve advanced and inclusive economic growth, Africa needs to take inspiration from the success story of Chinese growth and understand the importance of the role of the state, institutional reforms, domestic saving & investment, outward-oriented trade policies with

diversified exports towards manufacturing, and technological adaptation through innovation. Also, much more creative effort is needed to promote infrastructure investment, especially the regional type through public-private partnerships (PPPs) and regional integration.

They studied what macro-economic variables affect the growth of GDP components with special reference to the Secondary and service sector and found a significant effect of FDI, Net FII equity, and Import variables on the growth of GDP components hence they concluded that only these factors should be taken into consideration for future policy in scheming the GDP components and Net FII debt and Export should not be taken because these variables do not have a significant effect on GDP components in Indian perspective.

Determined the factors contributing to economic growth in developing countries. He concluded that the economic growth of developing countries positively correlated with the increasing volume of exports, abundant natural resources along with optimum utilization, longer life expectancy, and higher investment rate. His examinations also found differing outcomes on the effects of foreign direct investment on economic growth that is FDI had positive effects on economic growth in a one-time period, and a negative effect in another for developing countries. Therefore, there is scope for further research on the role of foreign direct investment in developing countries.

They studied how three elements namely FDI, participation of the female labour force, and Inflation affect GDP growth in Malaysia. In their investigation, they discovered a positive relationship between FDI and GDP growth and found that the GDP growth rate was strongly correlated with a huge inflow of FDI. Increasing participation of women in the Women's labour force contributes positively towards GDP growth but is not a notable element for GDP growth. Whereas inflation is an unimportant element because of its inverse relationship with GDP growth and for consistence growth of GDP inflationary pressure must be reduced which it can be done by increasing the tax rate and dropping government expenditure.

Focused to determine the various macroeconomic components which are crucial for rapid economic growth in Pakistan from 1970 to 2019. Their investigation discovered that human capital, fixed capital formation, industrial production, and development spending are the key elements for speedy economic growth and are positively correlated with economic growth. Educations and health are the fundamental sectors that

play a significant role in human capital development hence government development expenditure should be directed toward this kind of project. It will help to increase the productivity of human resources as well as non-human resources. For improving real GDP emphasis should be given to those investments which promote employment opportunities.

Hence, every scholar and researcher have their own view with regard to various factors affecting GDP by emphasizing on primary, secondary & tertiary sector, FDI, DI, Export, Import, and other variables impacting GDP. But none has studied the direction of components of the methods used for the calculation of GDP and its impact. Hence, this present study emphasizes the components of the expenditure method and its impact on the GDP.

Objectives of study

- To study the relationship between private final consumption expenditure (C) and GDP in India.
- To study the relationship between government final consumption expenditure (G) and GDP in India.
- To study the relationship between Investment (I) and GDP in India.
- To study the relationship between Exports & GDP in India.
- To study the relationship between Imports & GDP in India.
- To study the impact of C, G, I, and Exports (X) and Imports (M) on GDP in India. \

Research Methodology

This study is based on secondary data. Data are collected from various authentic websites like RBI websites, the Directorate General of Commercial Intelligence and Statistics (DGCI & S), and the Central Statistical Organisation (CSO). Data are collected for the period between "2001-02" to "2021-22". A total of five variables are there among which GDP is the dependent variable and rest four are independent variables i.e. C, G, I, and Net Exports. All the data are denoted in Rs. Crore and data of GDP are taken at market prices at 2011-12 prices (constant price) which represent the economic growth of India. Data Analysis is done with the help of SPS. Two techniques were used in order to analyze the data. These are:

1. Simple Correlation: Correlation is used in order to determine the relationship between Private Final Consumption Expenditure (C) and GDP, Government Final Consumption Expenditure (G) and GDP, Investment and GDP, Exports and GDP, and Imports and GDP.

2. Multiple Regression Technique: Multiple regression analysis is a statistical method used to predict the value of a dependent variable based on the values of two or more independent variables. This technique is applied between C, G, I, and X and M on the GDP of India to analyze the influence of all these independent variables on the dependent variable i.e. GDP.

Table : Components of GDP at Market Price Base Year: 2011-12 (Rs. Crore)

YEAR	C	GFCF	CIS	Valuables	I=GFCF+CIS+V	G	X	M	Net exports (X-M)	GDP
2000-01	2658841	988594	30759	32760	1052113	502203	502851	571938	-69087	4176830
2001-02	2817119	1207966	-6182	30998	1232782	514022	524521	588777	-64256	4530665
2002-03	2897983	1199300	35606	29713	1264619	513069	635117	659412	-24295	4681089
2003-04	3069698	1260657	38481	49502	1348640	527312	695975	750964	-54989	4940163
2004-05	3228436	1405052	142341	77840	1625233	548276	885116	917642	-32526	5447259
2005-06	3469138	1636060	180277	76627	1892964	596646	1115999	1213762	-97763	5937612
2006-07	3640367	1863048	237188	87091	2187327	620831	1343594	1474777	-131183	6404433
2007-08	3905443	2167264	311522	89612	2568398	679342	1422417	1621541	-199124	7043671
2008-09	4079321	2236602	151471	113738	2501811	756542	1632623	1985554	-352931	7098481
2009-10	4283319	2408303	254051	179221	2841575	863899	1553699	1947316	-393617	7774397

2010-11	4571175	2674328	367537	237367	3279232	909010	1856330	2255224	-398894	8597890
2011-12	4910447	2997733	207983	253033	3458749	968375	2143931	2715554	-571623	9018981
2012-13	5179091	3145793	201528	259949	3607270	974263	2289836	2879079	-589243	9431330
2013-14	5557329	3194924	129758	148879	3473561	979825	2468269	2644555	-176286	9983308
2014-15	5912657	3278096	274751	187957	3740804	1054151	2512145	2667595	-155450	10740119
2015-16	6381419	3492183	239557	185986	3917726	1132802	2370282	2511540	-141258	11476675
2016-17	6900236	3787568	122639	151479	4061686	1201598	2488423	2621593	-133170	12181829
2017-18	7330728	4083079	206436	212307	4501822	1344843	2602012	3078274	-476262	12913438
2018-19	7850444	4540509	262771	191704	4994984	1434945	2912480	3349861	-437381	14034696
2019-20	8259704	4611021	108284	164527	4883832	1484272	2813609	3321586	-507977	14284358
2020-21	7763734	4131279	-11573	207980	4327686	1537603	2553683	2862871	-309188	13527815
2021-22	8377854	4784054	187937	295046	5267037	1577132	3174844	3878193	-703349	14813720

Source: National Statistical Office

Note: Data for 2021-22 are provisional estimates. Data for 2018-19 are third revised estimates. Data for 2019-20 are second revised estimates. Data for 2020-21 are first revised estimates.

RESULTS & FINDINGS

1. Relationship between Private Final Consumption Expenditure (C) and GDP in India.

To study the relationship between C & GDP in India, the hypothesis is:

Null Hypothesis (H₀) = There is no significant relationship between Private Final Consumption Expenditure (C) and GDP in India.

Alternative Hypothesis (H₁) = There is a satisfactory significant relationship between Private Final Consumption Expenditure (C) and GDP in India.

$$GDP = f C$$

Table 2: Correlations

	C	GDP
Pearson Correlation	1	.997**
C Sig. (2-tailed)		.000
N	22	22
GDP Pearson Correlation	.997**	1
Sig. (2-tailed)	.000	
N	22	22

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

Findings

By applying Pearson Coefficient of Correlation (r) between C and GDP, we get positive value of r equals to 0.997 which is between +0.75 to +1, shows that there is high degree of positive correlation between these two variables. Hence the direction of correlation is

positive which means with increase or (decrease) in C, there would be increases or (decrease) in the GDP.

The arbitrary boundary for strong and weak correlation is the value 0.3. Here the value is 0.997 which is more than 0.3, shows that there is strong relation strength between these two variables.

1. Testing of Hypothesis

Significance 2 tailed gives us the p value (probability value) 0.000 which is less than 0.05 ($p < 0.05$), therefore we reject the H0 and accept the H1. Hence we can conclude that there exists statistically significant correlation between these two variables.

2. Relationship between Government Final Consumption Expenditure (G) and GDP in India.

To study the relationship between G & GDP in India, the hypothesis is:

Null Hypothesis (H0) = There is no significant relationship between Government Final Consumption Expenditure (G) and GDP in India.

Alternative Hypothesis (H1) = There is satisfactory significant relationship between Government Final Consumption Expenditure (G) and GDP in India.

$$GDP = f(G)$$

Table 3 : Correlations

		G	GDP
	Pearson Correlation	1	.991**
G	Sig. (2-tailed)		.000
	N	22	22
GDP	Pearson Correlation	.991**	1
	Sig. (2-tailed)	.000	
	N	22	22

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

Findings

By applying the Pearson Coefficient of Correlation (r) between G and GDP, we get the positive value of r equal to 0.991 which is between +0.75 to +1, showing that there is a high degree of positive correlation between these two variables. Hence the direction of correlation is positive which means with an increase or (decrease) in G, there would be increases or (decreases) in the GDP.

The arbitrary boundary for strong and weak correlation is the value 0.3. Here the value is 0.991 which is more than 0.3, showing that there is strong relation strength between these two variables.

Testing of Hypothesis

Significance 2 tailed gives us the p-value (probability value) of 0.000 which is less than 0.05 ($p < 0.05$), therefore we reject the H0 and accept the H1.

Hence we can conclude that there exists a statistically significant correlation between these two variables.

3. Relationship between Investment (I) and GDP in India.

To study the relationship between I & GDP in India, the hypothesis is:

Null Hypothesis (H0) = There is no significant relationship between Investment (I) and GDP in India.

Alternative Hypothesis (H1) = There is a satisfactory significant relationship between Investment (I) and GDP in India.

$$GDP = f(I)$$

Table 4 : Correlations

		Investment	GDP
	Pearson Correlation	1	.987**
Investment	Sig. (2-tailed)		.000
	N	22	22
GDP	Pearson Correlation	.987**	1
	Sig. (2-tailed)	.000	
	N	22	22

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

Findings

By applying the Pearson Coefficient of Correlation (r) between G and GDP, we get the positive value of r equal to 0.987 which is between +0.75 to +1, showing that there is a high degree of positive correlation between these two variables. Hence the direction of correlation is positive which means with an increase or (decrease) in I, there would be increases or (decreases) in the GDP.

The arbitrary boundary for strong and weak correlation is the value 0.3. Here the value is 0.987 which is more than 0.3, showing that there is strong relation strength between these two variables.

Testing of Hypothesis

Significance 2 tailed gives us the p-value (probability value) of 0.000 which is less than 0.05 ($p < 0.05$), therefore we reject the H0 and accept the H1.

Hence we can conclude that there exists a statistically significant correlation between these two variables.

4. Relationship between Exports & GDP in India.

To study the relationship between Exports (X) & GDP in India, the hypothesis is:

Null Hypothesis (H0) = There is no significant relationship between Exports (X) and GDP in India.

Alternative Hypothesis (H1) = There is a satisfactory significant relationship between Exports (X) and GDP in India.

GDP = f (X)

Table 5 : Correlations

		Exports	GDP
	Pearson Correlation	1	.968**
Exports	Sig. (2-tailed)		.000
	N	22	22
GDP	Pearson Correlation	.968**	1
	Sig. (2-tailed)	.000	
	N	22	22

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

Findings

By applying the Pearson Coefficient of Correlation (r) between Exports (X) and GDP, we get a positive value of r equals 0.968 which is between +0.75 to +1, showing that there is a high degree of positive correlation between these two variables. Hence the direction of correlation is positive which means with an increase or (decrease) in X, there would be increases or (decreases) in the GDP.

The arbitrary boundary for strong and weak correlation is the value 0.3. Here the value is 0.968 which is more than 0.3, showing that there is strong relation strength between these two variables.

Testing of Hypothesis

Significance 2 tailed gives us the p-value (probability value) of 0.000 which is less than 0.05 ($p < 0.05$), therefore we reject the H_0 and accept the H_1 .

Hence we can conclude that there exists a statistically significant correlation between these two variables.

5. Relationship between Imports & GDP in India.

To study the relationship between Imports (M) & GDP in India, the hypothesis is:

Null Hypothesis (H_0) = There is no significant relationship between Imports (M) and GDP in India.

Alternative Hypothesis (H_1) = There is a satisfactory significant relationship between Imports (M) and GDP in India.

GDP = f (M)

Table 6 : Correlations

		Imports	GDP
Pearson Correlation		1	.952**
Imports	Sig. (2-tailed)		.000
	N	22	22
GDP	Pearson Correlation	.952**	1
	Sig. (2-tailed)	.000	
	N	22	22

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

Findings

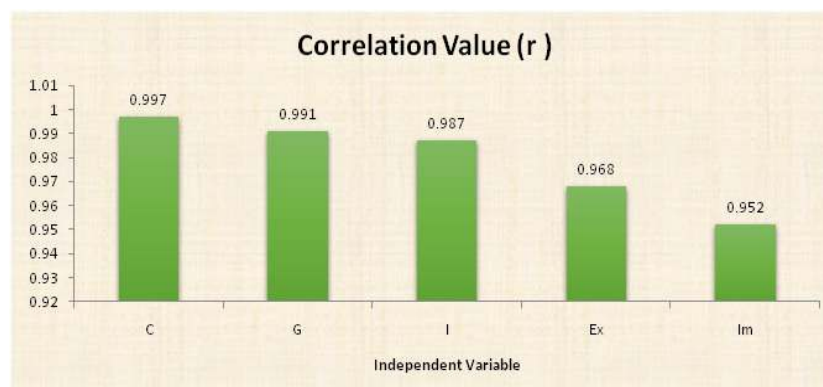
By applying the Pearson Coefficient of Correlation (r) between Imports (M) and GDP, we get the positive value of r equal to 0.952 which is between +0.75 to +1, showing that there is a high degree of positive correlation between these two variables. Hence the direction of correlation is positive which means with an increase or (decrease) in imports, there would be increases or (decrease) in the GDP. The arbitrary boundary for strong and weak correlation is the value 0.3. Here the value is 0.952 which is more than 0.3, showing that there is strong relation strength between these two variables.

Testing of Hypothesis

Significance 2 tailed gives us the p-value (probability value) of 0.000 which is less than 0.05 ($p < 0.05$), therefore we reject the H_0 and accept the H_1 .

Hence we can conclude that there exists a statistically significant correlation between these two variables.

Figure 1



Hence, the above figure 1 shows the correlation of all the independent variable with GDP at one place. Figure shows that the although all the variables are significantly related with GDP but r value of C & GDP is much higher and the r value of Import and GDP is very low as compared to other.

6. Impact of C, G, I, and Exports (X) and Imports (M) on GDP in India.

To study the impact of C, G, I, X & M on GDP in India, multiple regression techniques are used. Hypothesis framed is:

Null Hypothesis (H0): There is no supported relationship between the independent variable (C, G, I, X, M) and the dependent variable (GDP) in India.

Alternative Hypothesis (H1): There is a supported relationship between dependent and independent variables in India.

$$GDP = f(C, G, I, X, M)$$

i.e. $GDP = \alpha + \beta_1 \text{ Private Final Consumption Expenditure} + \beta_2 \text{ Government Final Consumption Expenditure} + \beta_3 \text{ Investment} + \beta_4 \text{ Exports} + \beta_5 \text{ Imports} + e$

where, α = intercept

β_1 = Regression coefficient of Private Final Consumption Expenditure

β_2 = Regression coefficient of Government Final Consumption Expenditure

β_3 = Regression coefficient of Investment

β_4 = Regression coefficient of Exports

β_5 = Regression coefficient of Imports

e = error term

Results: Regression

The regression result gives us various tables and diagrams to analyze the data.

Table 7 : Variables Entered/ Removed^a

Model	Variables Entered	Variables Removed	Method
1	M, C, X, G, I ^b	.	Enter

a. Dependent Variable: GDP

b. All requested variables entered.

Table 8 : Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	1.000 ^a	1.000	1.000	23855.941	1.000	91190.864	5	16	.000	1.251

a. Predictors: (Constant), M, C, X, G, I

b. Dependent Variable: GDP

Table 9 : ANOVA^a

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	259486309191822.600	5	51897261838364.520	91190.864	.000 ^b
	Residual	9105694960.142	16	569105935.009		
	Total	259495414886782.750	21			

a. Dependent Variable: GDPb.

Predictors: (Constant), M, C, X, G, I

Table 10 : Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	43934.570	16242.166		2.705	.016	9502.716	78366.423		
1	C	.872	.031	.478	28.415	.807	.937	.008	129.124
	G	1.465	.142	.152	10.345	1.165	1.765	.010	98.608
	I	1.063	.044	.400	24.141	.970	1.157	.008	125.388
	X	1.019	.061	.245	16.827	.890	1.147	.010	97.046
	M	-.956	.054	-.273	-17.564	-1.071	-.841	.009	110.252

a. Dependent Variable: GDP

Table 11 : Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	C	G	I	X	M
1	1	5.853	1.000	.00	.00	.00	.00	.00	.00
	2	.128	6.758	.61	.00	.00	.00	.00	.00
	3	.015	19.638	.30	.02	.02	.00	.01	.03
	4	.002	50.004	.00	.05	.10	.00	.31	.19
	5	.001	75.375	.00	.00	.15	.85	.17	.06
	6	.000	119.936	.08	.93	.73	.14	.51	.72

a. Dependent Variable: GDP

Table 12 : Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	4183016.00	14788495.00	9047216.32	3515180.068	22
Residual	-36794.531	31704.344	.000	20823.173	22
Std. Predicted Value	-1.384	1.633	.000	1.000	22
Std. Residual	-1.542	1.329	.000	.873	22

a. Dependent Variable: GDP

Figure 2

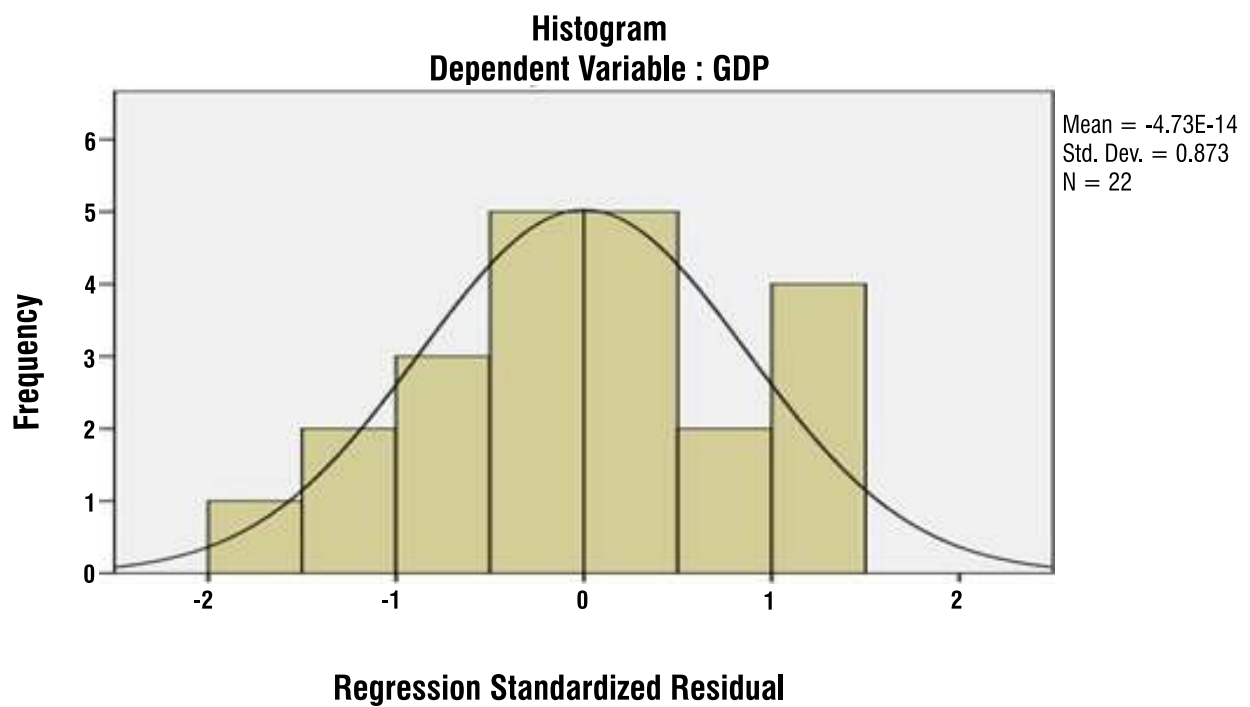


Figure 3

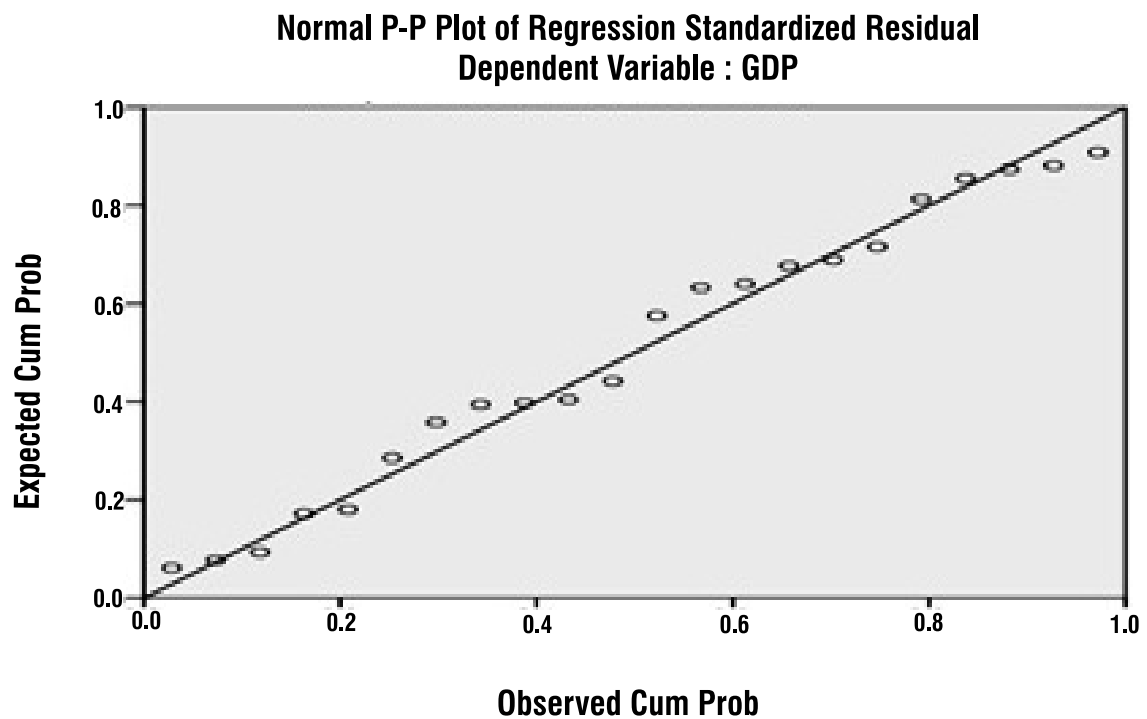
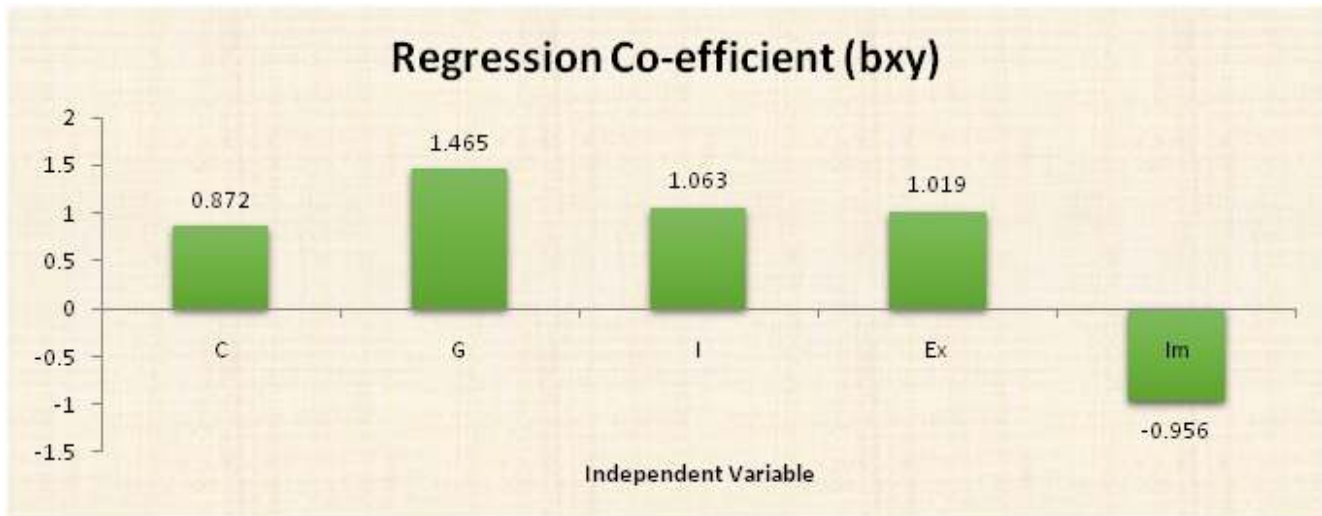


Figure 4



Findings

Table 7 shows the independent variable (C, G, I, X & M) that is used to predict the dependent variable (GDP).

Table 8 gives us the values R and R². The most important value is the R² = 1.000 when translated into percentage means 100 %, showing that independent variables account for 100 % of the variation in GDP. Hence this shows that the expenditure method used for the calculation of GDP is complete and satisfactory in itself as there are no chances of variation.

Table 9 shows that the F value is significant at the 0.000 level, which shows that there is a relationship between the dependent and independent variables and this relationship is significant.

Table 10 shows the constant value (α) i.e. intercept value equals 43934.570 in the regression coefficients (bxy) this tells us that if all the five independent variables i.e. C, G, I, X & M are fixed at zero, the GDP would be 43934.570.

The regression coefficient of x on y means x is dependent variable (GDP) and y is independent variable (C, G, I, X & M). The regression coefficient tells that with change in independent variable (y) by 1, how much change is expected in dependent variable (x). The regression coefficient of C is 0.872, showing that with an increase in C by 1, the GDP or economic growth goes up by 0.872 by keeping the influence of other independent variables (G, I, X & M) constant. Followed by C, the regression coefficient of G is 1.465, showing that with an increase in G by 1, the GDP or economic growth goes up by 1.465 by keeping the influence of other independent variables (C, I, X & M) constant. Similarly, the regression coefficient of I is 1.063, showing that with an increase in I by 1, the GDP or economic growth goes up by 1.063 by keeping the influence of other independent variables (C, G, X & M) constant. The regression coefficient of X is 1.019, showing that with an increase in X by 1, the GDP or economic growth goes up by 1.019 by keeping the influence of other independent variables (C, G, I, & M) constant. The coefficient -0.956 showed that by keeping the influence of C, G, I & X constant, GDP or Economic Growth decreases by -0.956 as Import (M) increases by 1. Figure 4 shows all the values of beta coefficient together.

The collinearity data shows that our F values are within the acceptable range. Hence there is no collinearity issue.

Figure 2 shows the bell-shaped structure and all the data are within the bell which shows that the data is normal. Also figure 3 shows all the points that are very near to regression lines. Hence there is no issue with data normality.

Testing of Hypothesis

Significance gives the 'p-value (probability value) of all independent variables 0.000 which is less than 0.05 ($p < 0.05$), therefore we reject the H₀ and accept H₁.

Hence we can conclude that there is enough evidence to say that there is a statistically significant relationship between these variables. Also, the value of R² (1.000) shows that 100% of GDP (Economic growth) is explained by C, G, I, X & M.

Interpretation

With the help of the above findings, it can be interpreted that all the independent variable are positively correlated with economic growth and has an impact on GDP in India but G especially has a very much positive and greater influence than C, I, X & M. The coefficient value of G, I & X is more than 1, hence, their contribution to GDP is more as compared to C & M whose values are 0.872 and -0.956 respectively. The beta value of imports is -0.956, which shows that imports and GDP have a negative relationship in the absence of Exports. This is because exports and imports both are very important components of Economic growth and as mentioned by export and import together will bring drastic changes in the sustained economic growth because both import and export has a high degree of positive and significant correlation with GDP (Economic Growth)."

There are various components of GDP according to expenditure methods like C, G, I, X & M. All the components are significantly and positively related to GDP. But as we know India is a Democratic country and follows a mixed economy pattern. Hence, government spending has more influence on GDP contribution as compared to other independent variables. This shows that the higher the government spending greater will be the GDP or economic growth of India. Secondly, Gross fixed Capital Formation (Investment) which is the summation of Gross Domestic Capital Formation, Change in stock and valuables has more influence on the GDP. Thirdly, Exports contribution is more in the GDP of India. Fourthly, Private final consumption expenditure contributes more to the GDP. Since Indians have a tendency to save some part of their income and this tendency goes on increasing as the income of consumers increases because, with the rise in income, the Marginal Propensity to consume (MPC) of consumers goes on decreasing. Hence, this can be one of the reasons why C has less contribution to GDP as compared to other independent variables. Lastly, the value of imports is negative which shows that imports and GDP have negative relation when exports are kept constant. But an export without imports is not possible in the long run. Hence, both contribute to the growth of GDP.

Conclusion

The national income of any nation is an important tool to measure the fitness of a country's economy as well as helpful in formulating appropriate policies essential for rapid economic development. Gross domestic product is an economic barometer and helpful in framing appropriate policies for the success of any economy. There are various methods for the calculation of GDP among them one is the Expenditure method. This study is carried out to analyse the contribution of various components included in the Expenditure method in the GDP growth. The component of the expenditure method includes Private Final Consumption Expenditure (C), Government Final Consumption Expenditure (G), Gross Domestic Capital Formation or Investment (I), and Net Exports (X-M). They are taken as the independent variable and GDP as the dependent variable. It is analyzed how and in what ratio these independent variables contribute to GDP. The study concluded that all these independent variables are positively & significantly correlated with the dependent variable. But as we know India is a Democratic country and follows a mixed economy pattern. Hence, government spending has more influence on GDP contribution as compared to other independent variables. This shows that the higher the government spending greater will be the GDP or economic growth of India. Hence, the growth and progress of India in the long run will accelerate when government spending increases in the country. This is due to the fact that private investors are less interested in the development of those infrastructures whose gestation period is more, because there are funds are blocked for longer period of time. Hence, the country's GDP will increase with increase in government expenditure.

References

- Anyanwu, J. C. (2014). "Factors Affecting Economic Growth in Africa: Are There any Lessons from China"? African Development Review, Vol 26(3), 468-493.
- Assenova, K. (n.d.). "The effect of public spending and its components on GDP in Israel and in Bulgaria – comparative analyze". 1-16.
- Dr. Jyoti Kumari. (2014). "Export, Import and Economic Growth in India: A study". Management Dynamics, Vol.14(1), 62-73.
- Jain, D., Nair, K. S., & Jain, V. (2015). "Factors Affecting GDP (Manufacturing, Services, Industry):An Indian Perspective". Annual Research Journal of Symbiosis Centre for Management Studies, Pune, Vol 3, 38-56.
- Kira, A. R. (2013). "The Factors Affecting Gross Domestic Product (GDP) in Developing Countries: The Case of Tanzania". European

Journal of Business and Management, Vol 5(4), 148-158.

- Nurul, R., Aziz, A. R., & Azmi, A. (2017). "FACTOR AFFECTING GROSS DOMESTIC PRODUCT (GDP) GROWTH IN MALAYSIA". International Journal of Real Estate Studies, Vol 11(4), 61-67.
- Shah, S. Z., Asghar, M. M., & Riaz, U. (2020). "Exploring the Factors Affecting Economic Growth in Pakistan". Global Social Sciences Review (GSSR), Vol 5(3), 400-409.
- Upreti, P. (2015). "Factors Affecting Economic Growth in Developing Countries". Major Themes in Economics, Vol 17, 37-54.
www.rbi.org.in

List of Tables

Table 1: Components of GDP at Market Price.....	3
Table 2: Correlations.....	4
Table 3: Correlations.....	5
Table 4: Correlations.....	6
Table 5: Correlations.....	6
Table 6: Correlations.....	7
Table 7: Variables Entered/ Removed ^a	8
Table 8: Model Summary ^b	8
Table 9: ANOVA ^a	8
Table 10: Coefficients ^a	9
Table 11: Collinearity Diagnostics ^a	9
Table 12: Residuals Statistics ^a	9

List of Figures

Figure 1.....	7
Figure 2.....	10
Figure 3.....	10
Figure 4.....	11

EFFECTS OF IN-STORE AMBIENCE AND AESTHETICS ON CONSUMER IMPULSE PURCHASING BEHAVIOR WITH PARTICULAR REFERENCE TO GUJARAT'S VADODARA CITY



Dr. Divyang K Vyas: Assistant Professor (Adhyapak Shayak), Kapadia N.M.M.S. Arts and the Sankheda Nagrik Sahakari Bank Sarvajanik. Commerce College, Sankheda, Gujarat, India

Dr. Chetna D Vyas: Assistant Professor, Team Lease Skills University, Vadodara, Gujarat, India

Abstract

Customers nowadays are more educated and seek for products not just as a means of finding a problem, but also as a means of being enriched and overwhelmed by the experience of purchasing and utilising a product. In the current environment, marketing tactics and consumer lifestyles influence impulsive purchasing. In light of today's smart and complicated customer behaviour as well as the current marketing landscape, merchants view impulsive purchase as having strategic value. In particular, modern society is mostly driven by a materialistic and mall culture where individuals experience pleasure and are psychologically influenced, which causes them to make impulsive purchases. As a result, one of the challenges facing merchants is increasing sales to encourage impulse spending. In order to assist retailers decide, plan, execute, adjust, and re-alter marketing approaches and strategies to encourage impulsive purchase, the study focuses on understanding the variables that inspire and impact it. One of the best ways that merchants can employ to draw customers and increase impulse purchases is visual merchandising. As a result, the study attempts to analyse the effects of seven in-store visual merchandising techniques (background music, scent, cleanliness, lighting, space availability, interior temperature, and waiting time at billing counter) connected to the in-store atmosphere and aesthetics. Thus, the results showed that among the interior temperature, smell, and background music (store ambience)

Keywords

Aesthetics, Vibe, Impulse buying and Visual merchandising

Introduction

The phrase "Customer is King" has been used frequently in marketing. Given that customers are the main benefactors of the retail boom, that still seems to be the case. Due to changes in consumer behaviour caused by demographic, psychographic, and socioeconomic considerations, the entire notion of retailing has been rethought in terms of both its structure and the basic shifts in customer behaviour. The Indian consumer has also been

affected by this paradigm change. A few decades ago, Indian consumers saved the majority of their money, only bought what they absolutely needed, and seldom ever engaged in impulsive purchasing. However, in the current environment, the Indian consumer has been spending not just to fulfil utilitarian requirements but also hedonic desires to a considerable extent due to rising income, the availability of credit cards, exposure to the western shopping culture, and a desire to better standard of life. Therefore, organised retail has fueled this addiction and a new attitude through its diversity of goods and plenty of malls and supermarkets, which in turn is fueling the expansion of organised retail in India. Consumer preferences, choices, and general consumer behaviour have always shaped market trends and, as a result, have affected the development of organised retailing in India. Numerous signals or stimuli that have a psychological impact on customers' minds and cause them to make impulsive purchases. Therefore, it is important for every marketer to pay attention in order to keep customers. The organised retail sector will benefit from this phenomenon because it will cause a shift in customer attitudes.

Impulse Buying Behaviour

Consumer behaviour research reveals what customers purchase, why they buy it, when they buy it, and how they buy it. Which illustrates how the phenomena connects to comprehending the behaviour pattern. The usual decision-making processes in customers' brains are disturbed by impulsive purchases. Every customer, however, does not adhere to the predetermined pattern, and there is a variation from the typical models of decision-making in which the rational order of the consumers' activities is substituted with a fleeting feeling of self-gratification. This brief detour leads to an impulsive choice to acquire a good or service that is made right before making a transaction. Impulsive spending, according to study results from the University of British Columbia and the Cheung Kong Graduate School of Business, is a habit that is more prevalent in chaotic settings. According to the study, being in a chaotic environment makes it harder for a person to focus on other activities that call

for "brain" power, which puts their sense of personal control at risk. Marketers must recognise that impulsive purchasing is a unique type of customer behaviour in order to promote it in the organised retail sector. In today's marketing environment, impulse purchase is an interesting riddle and study subject. Marketers are keen to find a solution to declining sales, but customers also want to strike a balance between their spending habits and their financial situation. The article's goal is to look at the in-store visual merchandising elements that affect consumers' impulsive purchasing decisions. In-store visual marketing features, such as aesthetic signals, are the main sources of impulsive purchases.

Statement Of The Problem

Retailers believe that customers are less impulsive when they first visit a store and become more impulsive as they browse and make purchases. According to research, both internal and external stimuli might act as triggers for the want to buy. The patterns of consumer behaviour are highly challenging to comprehend and anticipate, and they are seldom ever explicable by universal ideas. Therefore, it is difficult for behavioural research to come up with fair and credible explanations for the things that drive impulse purchase. The study's goal is to discover the in-store visual merchandising elements that affect customers' impulsive purchasing decisions. The current study focuses on the factors that influence impulse purchases made as a result of in-store visual marketing features, namely, aesthetic signals, the presence of background music, smells, cleanliness, lighting, and temperature inside and waiting time at billing counter are considered.

Literature Review

DeSarbo and Edwards (1996) distinguished compulsive buying from impulse buying, explaining that impulse buying was different from compulsive buying because impulse buying was influenced by external triggering factors like in-store environment but compulsive buying was stimulated by internal triggering factors like anxiety. This helps researchers to identify the store environment factors behind the behavior and their consequences. The store environment may include a lot of elements ranging from interior decoration to human components.

Kolter (1974) is amongst the first to highlight that store environment is sometime more important than the product itself in relation to consumer purchase behaviour.

Beatty and Ferrell, 1998 they observed as shoppers look around in a store, they experience more and more urges, and it creates

possibility of high impulse purchase the income level, window displays and visual merchandising have significant influence on consumer's behavior, especially, a well decorated, pleasant and calm store environment along with colourful surroundings. In addition, there is a difference between male and female impulse buying behavior where female consumers tend to be more impulsive.

Objectives Of The Study

1. To assess how visual merchandising affects consumers' impulsive purchasing patterns.
2. To investigate how aesthetics and in-store ambiance influence impulsive purchase.

Hypotheses

H01: Background music in store has no significant impact on impulse buying behavior

H02: Fragrance has no significant impact on impulse buying behavior

H03: Cleanliness has no significant impact on impulse buying behavior

H04: Lightning has no significant impact on impulse buying behavior

H05: Temperature inside has no significant impact on impulse buying behavior

H06: Space availability has no significant impact on impulse buying behavior

H07: Waiting at billing counter has no significant impact on impulse buying behavior

Research Methodology

1. RESEARCH APPROACH: It consists of quantitative research approach.

2. RESEARCH DESIGN: Research approach based on rationale and the objectives of this study it is very clear that the research design of the research study is 'descriptive' in nature. The study makes an effort to understand impact of store ambience and aesthetics cues on impulse buying behavior.

3. DATA COLLECTION:

(a) Primary data:

Primary data collected through the survey method supported by the personal interview of the retail Consumers in Vadodara city at Gujarat state.

A questionnaire made which was well-structured with close

ended and dichotomous and objective questions.

(b) Secondary data:

For this study secondary data obtained from various magazines, article reviews, research papers, reference books and surfing websites on internet etc...

4. RESEARCH INSTRUMENT:

The 'structured non-disguised questionnaire' was used to collect necessary primary data.

5. SAMPLING DESIGN:

(a) SAMPLING UNIT:

The sampling unit was 'Retail consumers of Vadodara city'.

(b) SAMPLING MEDIA:

'Personal interviews' used as sampling media.

(c) SAMPLING SIZE:

Sample size consists of total '100 Retail Consumers' from Vadodara city.

(d) SAMPLING METHOD:

Researcher used 'Convenience' sampling method.

6. SCOPE OF THE RESEARCH:

Through this study retailers will get idea that 'how visual merchandises cues influence the impulse buying behavior which will help to enhance sale of the product.

7. STATISTICAL DATA ANALYSIS:

Collected information entered in Excel sheet and analyzed using standard statistical tools. The basic information presented in terms of Frequency and Percentage form. The statistical tests applied for the data analysis was ONE WAY ANOVA with the help of SPSS software.

The questionnaire consists of two parts. The first part consists of demographic data gender, age, income and occupation of respondents. The second part of the questionnaire consists of questions relating to the attitude towards various ambience and aesthetic cues of the store interior. Ambience cues considered in the study are background music, fragrance, cleanliness, lightning, space availability, temperature inside and waiting time at billing. To measure the buying behavior of the consumers towards unplanned purchase, 30 questions were asked with 5-point Likert scale, ranging from strongly disagree=1 to strongly agree=5, is used to measure each variable. After collection of data the completed

questionnaires data was coded and then entered into SPSS tool for analysis

Findings And Suggestions

From the demographic profiles of the respondents, half of the respondents are female i.e. 50%. Half of the respondents are male i.e. 50%. 2% of the respondents are in the age group of below 18, 34% of the respondents are between age group of 18-30, 41% of them are between age group of 31-45, 21% of them are between age group of 46-60 and 2% are 61 & above age group. 69% respondents are married and 31 % respondents are unmarried. The Annual income of the 11% respondents is up to 1, 00,000, 28% is in the range of 1, 00,001 to 3, 00,000, 26% is in the range of 3,00,001 to 5,00,000 and the rest is getting above 5,00,000. It is revealed that on the basis of percentage frequency distribution, 64% respondents purchased food and grocery items without prior planning.

TABLE NO.1 ONE WAY ANOVA

Variables		Sum of Squares	Df	Mean Square	f	Sig.
Background music in store	Between Groups	14.054	2	7.027	6.105	.003
	Within Groups	111.656	97	1.151		
	Total	125.710	99			
Fragrance	Between Groups	9.068	2	4.534	3.264	.042
	Within Groups	134.722	97	1.389		
	Total	143.790	99			
Cleanliness	Between Groups	1.601	2	.801	.818	.445
	Within Groups	94.989	97	.979		
	Total	96.590	99			
Lighting	Between Groups	1.884	2	.942	1.216	.301
	Within Groups	75.156	97	.775		
	Total	77.040	99			
Temperature inside	Between Groups	10.490	2	5.245	4.308	.016
	Within Groups	118.100	97	1.218		
	Total	128.590	99			
Space Availability	Between Groups	5.390	2	2.695	2.668	.075
	Within Groups	98.000	97	1.010		
	Total	103.390	99			
Waiting at billing counter	Between Groups	2.944	2	1.472	1.568	.214
	Within Groups	91.056	97	.939		
	Total	94.000	99			

Source: SPSS (Questionnaire)

TABLE NO.2

VARIABLES	P Value	Significance
Background music in store	.003**	Significant
Fragrance	.042**	Significant
Cleanliness	.445	Not significant
Lightning	.301	Not significant
Temperature inside	.016**	Significant
Space availability	.075	Not significant
Waiting at billing counter	.214	Not significant

Source: SPSS (Questionnaire)

a) Predictors: (Constant), background music, fragrance, cleanliness, lightning, space availability, temperature inside and waiting time at billing

b) Dependent variable: IBB

c) Significance level = 0.05

The result from the above table describes that p value of variable background music in store is Significant at 5% level of significance ($P\text{-value} = 0.003 < 0.05$). So it indicates there is significant impact of background music in store on impulse buying behavior of retail consumers. p value of variable

Fragrance significant at 5% level of significance ($P\text{-value} = 0.042 < 0.05$). So it indicates there is significant impact of fragrance in store on impulse buying behavior. p value of variable cleanliness is not Significant at 5% level of significance ($P\text{-value} = 0.445 > 0.05$). So it indicates there is no significant impact of cleanliness on impulse buying behavior of retail consumers. p value of variable lightning is not significant at 5% level of significance ($P\text{-value} = 0.301 > 0.05$). So it indicates there is no significant impact of cleanliness on impulse buying behavior. p value of variable temperature inside is Significant at 5% level of significance ($P\text{-value} = 0.016 < 0.05$). So it indicates there is significant impact of temperature inside on impulse buying behavior of retail consumers. p value of variable space availability is not significant at 5% level of significance ($P\text{-value} = 0.075 > 0.05$). So it indicates there is no significant impact of space availability in store on impulse buying behavior. p value of variable waiting at billing counter in store is not Significant at 5% level of significance ($P\text{-value} = 0.214 > 0.05$). So it indicates there is no significant impact of waiting at billing counter in store on impulse buying behavior.

On the basis of above analysis researcher can able to suggest that retailers should pay attention towards the three ambience factors viz. which are able to inject the mind of consumer at large

at the time of impulse purchase and having possibilities of enhancing market share of a particular product in today's competitive, demanding and ever-changing marketing world.

Conclusion

The Study analysed the factors of store ambience and aesthetics of the interior visual merchandising and impulse buying behavior in organized retails in Vadodara city. To investigate the relation the study attempted to interpret the association between the customer's unplanned purchase behaviour and different types of interior visual merchandising categorized background music, fragrance, cleanliness, lightning, space availability, temperature inside and waiting time at billing counter. The main findings of this study were that the store ambience and aesthetics influence consumer impulse buying behaviour. Results proved that the consumer impulse buying behaviour is significantly influenced by the store aesthetics viz. background music in store, fragrance and temperature inside. The remaining factors for e.g. cleanliness, lightning, space availability at store and waiting time at billing counter has no or least impact on impulse buying behaviour

References

- Beatty, S.E. & Ferrell, M.E. (1998). Impulsive buying: modeling its precursors. *Journal of Retailing*, Vol. 74 No. 2, pp. 169-191. *Journal of Advertising Research*, 18(6), 15-18.
- DeSarbo, W., and Edwards, E. (1996). Typologies of compulsive buying behavior: A constrained cluster wise regression approach. *Journal of Consumer Psychology*. 5, 231-262.
- Kotler, P. (1974). Atmospherics as a marketing tool. *Journal of Retailing*, 49(4), 48-64.
- Milliman, R. E. (1982). Using background music to affect the behavior of supermarket shoppers. *Journal of Marketing*, 46(3), 86-91.
- Pushpa, A1, D. C. (2017). Impact of In-Store Aesthetics and Ambience on Consumer Impulse Buying. *International Journal of Engineering and Management Research*, 7 (3), 233-237.
- Rook, D. W. (1987). The buying impulse. *Journal of Consumer Research*, 14, 189-199.
- Saad, M., & Metawie, M. (2015). Store Environment, Personality Factors and Impulse Buying Behavior in Egypt: The Mediating Roles of Shop Enjoyment and Impulse Buying Tendencies. *Journal of Business and Management Sciences*, 3(2): 69-77.
- Turley, L.W. & Milliman, R.E. (2000). Atmospheric effects on shopping behavior: a review of the experimental evidence. *Journal of Business Research*, 49(2), 193-210
- Thakor, M., & Prajapati, S. G. (2012). Factors that encourage impulse purchase and impact of visual merchandising on the purchase decision of women for beauty product in Gujarat. *International Journal of Research in Commerce, Economics and Management*, Vol. 2(9), 7-11
- Vishnu, P., & Raheem, A. R. (2013). Factors influencing impulse buying behavior. *European Journal of Scientific Research*, Vol. 100(3), 67-79.
- Yalch, Richard F and Eric Spangenberg (1990) "Effects of Store Music on Shopping Behavior." *Journal of Service Marketing*, 4, 31-39.

A STUDY ON PERFORMANCE EVALUATION OF MUTUAL FUNDS SCHEMES IN INDIA



Nikee Mehta, Aastha Patel: Shrimad Rajchandra Institute of Management, Uka Tarsadia University, Mahuva, Bardoli, Gujarat, India.

Dr. Krunal Patel: Director & Project Guide, Shrimad Rajchandra Institute of Management, Uka Tarsadia University, Mahuva, Bardoli, Gujarat, India.

Abstract

The study evaluated the risk and return analysis of theme-based mutual funds in India for the period of 2019-2022, covering small-cap, mid-cap, and large-cap funds. Jensen, Sharpe, and Treynor ratios were used for the analysis. The research found ICICI Prudential and Canara Robeco Direct Growth Funds to have outperformed in the small-cap fund category, while Motilal Oswal Midcap-Direct Growth Fund and Nippon India Large-cap-Direct Growth Fund comparatively performed well in the mid-cap and large-cap fund categories, respectively. The study highlights the need for mutual funds to develop new products, marketing strategies and promote investor education to increase penetration. Identifying superior fund managers remains a challenge to the efficient market hypothesis.

Keywords

Mutual Fund, Continuous Evaluation, Mean, Market Return, Standard Deviation, Initial Return

Introduction

Mutual funds are a form of investment that allows investors to pool their money and invest in a portfolio of securities. Every security is not owned by an individual investor. He puts his money into mutual funds. The key benefit of mutual funds is that they enable investors to diversify their investments without having to spend a large sum of money.

The investment fund industry is one of India's burgeoning industries. In India, there are currently 40 players in the mutual fund industry. The Investment Trusts Association of India is a non-profit organization dedicated to the development of investment trust companies in India. It takes a knowledgeable and aggressive stance in determining the measures that must be taken to protect investors and promote the field of mutual funding.

The market cap of a mutual fund (small-cap, mid-cap, or large-cap) reflects the value of the companies in which the fund invests, not the mutual fund itself.

Small-Cap Funds:

Companies with a market capitalization of less than \$2 billion are usually included in small-cap funds. However, the dividing line between funds and brokerage houses can shift, and exact meanings can differ. Since they invest in companies that are less stable than large-cap companies, small-cap funds may be unpredictable.

Mid Cap Funds:

Mid-cap funds invest in firms with market capitalizations ranging from \$2 billion to \$10 billion. Mid-cap companies have some of the same growth characteristics as small-cap companies, but they create less risk, at least in principle, since they are larger and more developed. Mid-cap funds may be a good option for investors looking for higher yields without the danger of small-cap stocks.

Large-Cap Funds:

Large-cap funds invest in businesses with market capitalizations of \$10 billion or more, i.e. Wall Street's "small fish." Large-cap funds can be excellent investment vehicles for market participants who want to purchase and retain for a long time. For those who don't want to take on too much risk, they will have consistent returns and profits. They aren't suitable for investors attempting to "beat the market," though.

Literature Review

Y. Maheswari in (2021) published a paper on "PERFORMANCE EVALUATION OF SELECT MUTUAL FUNDS IN INDIA". The primary objective of the paper was to assess the performance of mutual funds with extraordinary reference to Sharpe model and Treynor's model. The sample size was limited to 5 different mutual fund schemes of India. He concluded that The standard deviation for ICICI TAX savings schemes is 31.94 which is very high, SBI Magnum TAX savings schemes has SD of 25.43 and AXIS bank TAX savings schemes SD is very low i.e., 8.85. Sharpe ratio for ICICI & SBI magnum TAX savings is 0.30 AXIS bank Sharpe ratio is - 0.663. Treynor ratio for ICICI TAX savings

scheme was 18.38, it is -1.89 for AXIS bank. Beta value for ICICI TAX saving schemes is 0.53, SBI & Birla Sun Life was 0.39 & 0.33, BOI Beta value was 0.41 & AXIS bank is 0.607.

Sharma Komal B., Dr. Prashant Joshi in (2021) published a paper on "A COMPARATIVE STUDY ON PERFORMANCE EVALUATION OF SELECTED DEBT, EQUITY AND HYBRID MUTUAL FUND SCHEMES IN INDIA". The primary objective of the paper was to study the risk and return component among the selected mutual fund schemes. The sample size was 15 schemes, 5 schemes of each Debt, Equity and Hybrid fund are selected for a period of 5 years from 2016-2020. The study concluded that all the selected Mutual fund schemes outperformed in average return during selected time period. Except selected Hybrid mutual fund schemes both Equity and Debt Mutual fund schemes NAV (Net Asset Value) also outperformed.

Dr. Bijaya Kumar Barik, Mr. Jayasankar Akash Srivatsan (2019) conducted a research on "PERFORMANCE ANALYSIS OF MUTUAL FUND EQUITY LINKED SAVINGS SCHEMES". The present study is to understand the mutual fund Equity Linked Savings Schemes (ELSS) market in India and performance analysis of specific ELSS schemes..over last 10 years period from 2009 to 2019 as compared to diversified equity market benchmark returns and BSE-30 or Nifty-50 index was used for comparison with ELSS funds. From ELSS market growth analysis. Thus the study concludes that growth of ELSS assets under management in India in last two decades is more than 20% and with increasing awareness on mutual fund, it is likely to grow further.

Dr. Anand Muley, Mr. Satish Tiwari, and Dr. Jaspal Gidwani (2019) published a paper titled "PERFORMANCE EVALUATION OF THEMATIC MUTUAL FUND SCHEMES USING CAPITAL ASSET PRICING MODEL (CAPM)". The research primarily examined the risk-return relationship of selected Infrastructure equity mutual fund schemes as well as the financial results of selected Infrastructure mutual fund schemes. The mutual funds were evaluated using average annualised return, beta, standard deviation, and the Capital Asset Pricing Model. The study concludes that schemes like Franklin Build India Fund, L&T Infrastructure Fund, Plan, and Kotak Infrastructure and Economic Reform Fund - Standard Plan produce higher returns than others, with an average annualised return of more than 25%, while schemes like Franklin Build India Fund, L&T Infrastructure Fund, Plan, and Kotak Infrastructure and Economic Reform Fund - Standard Plan generate lower returns.

Dr. V Chitra and Dr. T Hemalatha (2018) conducted study on "RISK & RETURN ANALYSIS OF PERFORMANCE OF MUTUAL FUND SCHEMES IN INDIA". In this study they compare the performance of selected schemes with benchmark index and to see whether the scheme is outperforming or underperforming when compared to the benchmark. The data has been taken from mutual fund schemes floated by UTI mutual fund during 1st April 2007 to 31st March 2016. The analysis has been done using the Sharpe, Treynors and Jensens ratio method has been applied it can clearly identified that UTI Dividend Yield fund has got highest Sharpe, Treynors and Jensens ratio as compared with other selected schemes. The study concludes that it can clearly identified that UTI Dividend Yield fund has got highest Sharpe, Treynors and Jensens ratio as compared with other selected schemes

Brian A Lavelle in (2018) published a paper on "EVALUATING THE RISK AND RISK-ADJUSTED PERFORMANCE OF MICRO-CAP MUTUAL FUNDS". The primary objective of the paper was to analyze the risk and risk-adjusted performance of micro-cap mutual funds with mid-cap and large-cap mutual funds. The sample size is limited to 33 mutual fund schemes, 11 each of micro-cap, mid-cap and large-cap mutual funds. The study finds that micro-cap mutual funds are riskier and produce a lower Jensen's alpha than those of mid-cap and large-cap mutual funds. In addition, the author provides a comprehensive literature review and suggests potential explanations for the growing evidence that micro-cap mutual funds are poor investments.

Syed Jaffer, Dr.BadiuddinAhmed(2018) conducted a research on "PERFORMANCE EVALUATION OF SELECT MUTUAL FUND SCHEMES: AN ANALYSIS OF RETURN. In this research paper investigates the performance of Top Ranked Mutual Funds across all categories- open-ended, growth oriented equity schemes, balanced funds etc., for the period from April 2017 to December 2017 ranked no 1. Daily closing NAV of different schemes have been used to calculate the returns from the various fund schemes. The results will be useful to investors, and managers for taking better investment decisions. This is a descriptive research wherein the source for the data is secondary. The data has been collected from published data and information with regard to this study. Considering the interest of retail investors modest statistical techniques like averages and rate of returns are used.

"A COMPARATIVE RISK ANALYSIS OF KOTAK SELECT FOCUS FUND (G) MUTUAL FUND SCHEME" was performed by Dr. Ujjwal M. Mishra and Mr. Chetan Borole (2017). The

emergence of new financial instruments has been a significant result of the government's policy of liberalisation in the manufacturing and financial sectors. These new instruments are expected to give the financial sector more flexibility and performance. In the Indian capital market, the growth and production of various mutual fund products has proven to be one of the most catalytic instruments in generating significant investment growth. Due to a high degree of precision in the design and marketing of a variety of mutual fund products by banks and other financial institutions, the mutual fund market has grown significantly. This research paper will help to know about the risk and the returns of selected mutual fund. For the study purpose data has been taken from journals and RBI website.

Dr. Partap Singh Chahal conducted a study entitled "RISK AND RETURN REGARDING SOME SELECTED EQUITY MUTUAL FUND SCHEMES (WITH SPECIAL REFERENCE TO SBI MUTUAL FUNDS)" in (2017). The paper assesses the risk of SBI mutual funds schemes across various equity categories. The research is focused on secondary sources. A five-year study period was chosen. SBI Mutual Funds have been divided into six groups. The data set used to test the hypothesis came from the Association of Mutual Funds of India's database (AMFI). Mean, standard deviation, variance, the compound annual growth rate (CAGR), and other statistical methods were used to analyse data. It is evident from the review of return and risk calculation for the different six categories and schemes of SBI Mutual Fund of Equity Mutual Fund Schemes that all SBI funds performed well with a reasonable.

The study "MEASURING SYSTEMIC RISK CONTRIBUTION OF INTERNATIONAL MUTUAL FUNDS" was conducted by Joshua Aizenman, Yothin Jinjarak, and Huanhuan Zheng (2016). From 2000 to 2011, the report uncovers new evidence of systemic risk contribution in the international mutual fund market. The aim of the study is to show that foreign mutual funds contribute more than their fair share of systemic risk. Mean SD Minimum Maximum tools are used in the research. As a result, the study concludes that the systemic risk contributions of foreign mutual funds, whether derived from idiosyncratic risks or common factors affecting the mutual fund industry, are found to be more than proportionally greater given the fund's size.

Suchita Shukla in (2015) published a paper on "A COMPARATIVE PERFORMANCE EVOLUTION OF SELECTED MUTUAL FUNDS". The primary objective of the paper was to study the performance of selected mutual funds schemes under different 5 categories. The sample size is limited to 15 different

mutual fund schemes of India. The study shows that highest returns were projected by Mid and Small Cap funds. On the other hand, Infrastructure sector proved to be the highest risky one. Least risk was found in hybrid funds and least returns were seen in benchmark funds.

Methods and Materials

Study Design: Descriptive Research Design has been used for this study.

Study Duration: February 2021 to March 2021

Primary Objective:

- To analyze market capitalization based Mutual Funds in India.
- Secondary Objective:
- To evaluate the performance of selected mutual funds.
 - To analyze the return of selected mutual fund.
 - To study the risk measurement tools of selected mutual funds.

Need of the study: Mutual fund is one of the most desirable investments for small investors because they offer the opportunity to invest in relatively low-cost, diverse and professionally managed investments. The recent trend in the mutual fund industry is the active expansion of foreign investment fund companies and the reduction of state-owned banks and small private companies. The growth and development of various investment fund products in Indian capital markets has proven to be one of the most catalytic tools to promote capital market growth.

Scope of the study: The main focus of the study was to track the performance of the different mutual fund schemes.

The analysis is done on the performance of funds with the same theme or sector and reason out why a fund performs better than the others in the lot. It is limited to investors and their investment preferences. Study objective is to investigate the return on investment in share market and to understand the fund sponsor qualities influencing the selection of Mutual Funds/Schemes.

Tools and Technique used for analysis:

- Jensen Measure :

$$\text{Jensen Alpha} = R(i) - (R(f) + B \times (R(m) - R(f)))$$
- Sharpe Ratio :

$$\text{Sharpe Ratio Formula} = (R(p) - R(f)) / SD$$
- Treynor Ratio : $\text{Treynor Ratio} = r_p - r_f / \beta_p$

Discussion

Small Cap Funds:

Yearly Ratios						
		DSP Small cap	Canara rebeco	Nippon india	Kotak small cap	ICICI Prudential
2019- 2020	Treynor	-0.0227	-0.0295	-0.0207	-0.0231	-0.0119
	Sharpe	0.1457	0.2114	0.1380	0.1473	0.0772
	Jensen	0.0182	0.0238	0.0179	0.0188	0.0110
2020- 2021	Treynor	0.2280	0.1692	0.2985	0.3180	0.4930
	Sharpe	1.1266	1.2726	1.1926	1.4655	1.0441
	Jensen	0.0555	0.0691	0.0639	0.0687	0.0567
2021- 2022	Treynor	-0.0405	-0.1613	-0.0770	-0.0523	-0.0543
	Sharpe	0.1038	0.2572	0.1706	0.1023	0.1375
	Jensen	0.0060	0.0132	0.0093	0.0047	0.0065

On the basis of calculation of annual ratios of the 5 schemes it could be interpreted as follows:

In 2019-20, on the basis of data, collected, a fund with a higher Treynor ratio implies that the fund has a better risk adjusted return than that of another fund with a lower Treynor ratio. Thus, according to our data, we can say that ICICI Prudential –Direct Growth Fund has outperformed (-0.0119) in comparison to other funds whereas Canara Robeco has underperformed (-0.0295). On the basis of data, collected, Sharpe ratio indicates the average return earned in excess of the risk-free rate per unit of volatility or total risk. Generally, the greater the value of the Sharpe ratio, the more attractive the risk-adjusted return. Here, Canara Robeco-Direct Growth Fund has performed well (0.2114) and ICICI Prudential –Direct Growth Fund (0.0772) has not performed well as compared to other funds. On the basis of data, collected, all the schemes have a positive Jensen ratio, which indicates that the portfolio is earning excess returns. Here, Canara Robeco- Direct Growth Fund has performed well (0.0238) and ICICI Prudential –Direct Growth Fund (0.0110) has not performed well as compared to other funds.

In 2020-21, on the basis of data, collected, a fund with a higher Treynor ratio implies that the fund has a better risk adjusted return than that of another fund with a lower Treynor ratio. Thus, according to our data, we can say that ICICI Prudential –Direct Growth Fund has outperformed (0.4930) in comparison to other funds whereas Canara Robeco- Direct Growth Fund has underperformed (0.1692). On the basis of data, collected, Sharpe ratio indicates the average return earned in excess of the risk-free rate per unit of volatility or total risk. Generally, the greater the value of the Sharpe ratio, the more attractive the risk-adjusted return. Here, Kotak small cap- Direct Growth Fund has

performed well (1.4655) and ICICI Prudential –Direct Growth Fund has underperformed (1.0441). On the basis of data, collected, all the schemes have a positive Jensen ratio, which indicates that the portfolio is earning excess returns. Here, Canara Robeco- Direct Growth Fund has performed well (0.0691) and DSP small cap fund (0.0555) has not performed well as compared to other funds.

In 2021-22, on the basis of data, collected, a fund with a higher Treynor ratio implies that the fund has a better risk adjusted return than that of another fund with a lower Treynor ratio. Thus, according to our data, we can say that DSP small cap fund has outperformed (-0.0405) in comparison to other funds whereas Canara Robeco- Direct Growth Fund has underperformed (-0.1613). On the basis of data, collected, Sharpe ratio indicates the average return earned in excess of the risk-free rate per unit of volatility or total risk. Generally, the greater the value of the Sharpe ratio, the more attractive the risk-adjusted return. Here, Canara Robeco- Direct Growth Fund has performed well (0.2572) and Kotak small cap- Direct Growth Fund has underperformed (0.1023). On the basis of data, collected, all the schemes have a positive Jensen ratio, which indicates that the portfolio is earning excess returns. Here, Canara Robeco- Direct Growth Fund has performed well (0.0132) and DSP small cap fund (0.0060) has not performed well as compared to other funds.

Mid Cap Funds:

Yearly Ratios						
		Quant Mid Cap	PGIM India Midcap	Motilal oswal midcap 30	BNP Paribas Midcap	Kotak emerging
2019- 2020	Treynor	-0.0222	-0.0401	-0.0060	-0.0173	-0.0173
	Sharpe	0.1603	0.2605	0.0458	0.1196	0.1115
	Jensen	0.0066	0.0179	-0.0045	0.0033	0.0036
2020- 2021	Treynor	-0.1700	0.4241	0.5152	-0.2979	-0.4166
	Sharpe	1.0728	1.5021	1.0509	0.9960	1.1135
	Jensen	0.0355	0.0611	0.0428	0.0356	0.0402
2021- 2022	Treynor	-0.0915	-0.0454	-0.1093	0.0063	-0.0552
	Sharpe	0.1973	0.1185	0.3331	-0.0127	0.1283
	Jensen	0.0106	0.0055	0.0156	-0.0007	0.0055

On the basis of calculation of annual ratios of the 5 schemes it could be interpreted as follows:

In 2019-20, on the basis of data, collected, a fund with a higher Treynor ratio implies that the fund has a better risk adjusted return than that of another fund with a lower Treynor ratio. Thus, according to our data, we can say that Motilal Oswal Midcap-Direct Growth Fund has outperformed (-0.0060) in comparison

to other funds whereas PGIM India- Direct Growth Fund has underperformed (-0.0401). On the basis of data, collected, Sharpe ratio indicates the average return earned in excess of the risk-free rate per unit of volatility or total risk. Generally, the greater the value of the Sharpe ratio, the more attractive the risk-adjusted return. Here, PGIM India-Direct Growth Fund has performed well (0.2605) and Motilal Oswal Midcap-Direct Growth Fund (0.0458) has not performed well as compared to other funds. On the basis of data, collected, all the schemes have a positive Jensen ratio, which indicates that the portfolio is earning excess returns. Here, PGIM India- Direct Growth Fund has performed well (0.0179) and Motilal Oswal Midcap-Direct Growth Fund (-0.0045) has not performed well as compared to other funds.

In 2020-21, on the basis of data, collected, a fund with a higher Treynor ratio implies that the fund has a better risk adjusted return than that of another fund with a lower Treynor ratio. Thus, according to our data, we can say that Motilal Oswal Midcap-Direct Growth Fund has outperformed (0.5152) in comparison to other funds whereas BNP Paribas Midcap –Direct Growth Fund has underperformed (-0.2979). On the basis of data, collected, Sharpe ratio indicates the average return earned in excess of the risk-free rate per unit of volatility or total risk. Generally, the greater the value of the Sharpe ratio, the more attractive the risk-adjusted return. Here, PGIM India- Direct Growth Fund has performed well (1.5021) and BNP Paribas Midcap –Direct Growth Fund has underperformed (0.9960). On the basis of data, collected of Jensen Ratio, PGIM India- Direct Growth Fund has performed well (0.0611) and Quant Midcap –Direct Growth Fund (0.0355) has not performed well as compared to other funds.

In 2021-22, on the basis of data, collected, a fund with a higher Treynor ratio implies that the fund has a better risk adjusted return than that of another fund with a lower Treynor ratio. Thus, according to our data, we can say that BNP Paribas Midcap –Direct Growth Fund has outperformed (0.0063) in comparison to other funds whereas Motilal Oswal Midcap- Direct Growth Fund has underperformed (-0.1093). On the basis of data, collected, Sharpe ratio indicates the average return earned in excess of the risk-free rate per unit of volatility or total risk. Generally, the greater the value of the Sharpe ratio, the more attractive the risk-adjusted return. Here Motilal Oswal Midcap-Direct Growth Fund performed well (0.3331) and BNP Paribas Midcap –Direct Growth Fund has underperformed (-0.0127). On the basis of data, collected of Jensen Ratio, Motilal Oswal Midcap- Direct Growth Fund has performed well (0.0156) and

BNP Paribas Midcap –Direct Growth Fund (-0.0007) has not performed well as compared to other funds.

Large Cap Funds:

		Yearly Ratios				
		Canara robeco	Nippon India	Kotak Blue-chip	ICICI Prudential	SBI Blue-chip
2019-2020	Treynor	-0.0234	0.0005	-0.0124	-0.0067	-0.0057
	Sharpe	0.1320	-0.0028	0.0589	0.0307	0.0297
	Jensen	0.0075	-0.0037	0.0026	0.0003	-0.0001
2020-2021	Treynor	-7.0770	0.1603	-0.7528	0.2416	0.2783
	Sharpe	0.9207	0.6405	0.9544	0.8074	0.7342
	Jensen	0.0336	0.0437	0.0321	0.0387	0.0397
2021-2022	Treynor	0.0342	-0.0339	0.0252	-0.0163	-0.0032
	Sharpe	-0.0803	0.1052	-0.0649	0.0465	0.0064
	Jensen	-0.0032	0.0040	-0.0028	0.0012	0.0000

On the basis of calculation of annual ratios of the 5 schemes it could be interpreted as follows:

In 2019-20, on the basis of data, collected, a fund with a higher Treynor ratio implies that the fund has a better risk adjusted return than that of another fund with a lower Treynor ratio. Thus, according to our data, we can say that Nippon India Large-cap-Direct Growth Fund has outperformed (0.0005) in comparison to other funds whereas Canara Robeco Large-cap- Direct Growth Fund has underperformed (-0.0234). On the basis of data, collected, Sharpe ratio indicates the average return earned in excess of the risk-free rate per unit of volatility or total risk. Generally, the greater the value of the Sharpe ratio, the more attractive the risk-adjusted return. Here, Canara Robeco Large-cap- Direct Growth Fund has performed well (0.1320) and Nippon India Large-cap- Direct Growth Fund (-0.0028) has not performed well as compared to other funds. On the basis of data, collected of Jensen Ratio, Canara Robeco Large-cap- Direct Growth Fund has performed well (0.0075) and Nippon India Large-cap- Direct Growth Fund (-0.0037) has not performed well as compared to other funds.

In 2020-21, on the basis of data, collected, a fund with a higher Treynor ratio implies that the fund has a better risk adjusted return than that of another fund with a lower Treynor ratio. Thus, according to our data, we can say that SBI Bluechip- Direct Growth Fund has outperformed (0.2783) in comparison to other funds whereas Canara Robeco Large-cap- Direct Growth Fund has underperformed (-7.0770). On the basis of data, collected, Sharpe ratio indicates the average return earned in excess of the risk-free rate per unit of volatility or total risk. Generally, the greater the value of the Sharpe ratio, the more attractive the risk-

adjusted return. Here, Kotak Bluechip –Direct Growth Fund has performed well (0.9544) and Nippon India Large-cap- Direct Growth Fund has underperformed (0.6405). On the basis of data, collected, all the schemes have a positive Jensen ratio, which indicates that the portfolio is earning excess returns. Here, Nippon India Large-cap- Direct Growth Fund has performed well (0.0437) and Kotak Bluechip –Direct Growth Fund (0.0321) has not performed well as compared to other funds.

In 2021-22, on the basis of data, collected, a fund with a higher Treynor ratio implies that the fund has a better risk adjusted return than that of another fund with a lower Treynor ratio. Thus, according to our data, we can say that Canara Robeco Large-cap- Direct Growth Fund has outperformed (0.0342) in comparison to other funds whereas Nippon India Large-cap-Direct Growth Fund has underperformed (-0.0339). On the basis of data, collected, Sharpe ratio indicates the average return earned in excess of the risk-free rate per unit of volatility or total risk. Generally, the greater the value of the Sharpe ratio, the more attractive the risk-adjusted return. Here, Nippon India Large-cap-Direct Growth Fund has performed well (0.1052) and Canara Robeco Large-cap- Direct Growth Fund has underperformed (-0.0803). On the basis of data, collected of Jensen Ratio, Nippon India Large-cap- Direct Growth Fund has performed well (0.0040) and Canara Robeco Large-cap- Direct Growth Fund (-0.0032) has not performed well as compared to other funds.

Findings

- In the three years from 2019 to 2022, the ICICI Prudential and Canara Robeco Direct Growth Funds both outperformed the small cap category on a comparative basis.
- In the mid cap fund category, Motilal Oswal Midcap- Direct Growth Fund has comparatively performed well in the three years ranging from 2019-2022.
- Over the three years from 2019 to 2022, Nippon India Large-cap-Direct Growth Fund outperformed other large cap funds in comparison.

Conclusion

The study looked into the risk and return analysis of a few Indian mutual funds based on market capitalization. The study's 2019–2022-time frame comprises the three mutual fund tiers of small-cap, midcap, and large-cap funds for conducting a comparative examination of particular funds within each category. The tools Mean, Market return, Standard deviation, and Initial Returns were used to analyses secondary data,. Treynor Ratio, CAPM Model, Sharpe Ratio, and Jensen Ratio are the

techniques or ratios utilized for fund comparison. According to the study, ICICI Prudential and Canara Robeco Direct Growth Funds both outperformed in the small cap fund category. In the mid cap fund category, Motilal Oswal Midcap- Direct Growth Fund has comparatively performed well and in the large-cap fund category, Nippon India Large-cap-Direct Growth Fund have comparatively performed well.

References

- [1] Aizenman, J., Jinjark, Y., & Zheng, H. (2016). Measuring systemic risk contribution of international mutual funds.
- [2] Dr. Anand Muley, Mr. Satish Tiwari, Dr. Jaspal Gidwani. 2019. "Performance Evaluation of Thematic Mutual Fund Schemes Using Capital Asset Pricing Model (CAPM)." International Journal of Scientific Research and Review 2277-2286.
- [3] Chahal, Dr. Partap Singh. 2018. "Study of Risk and Return regarding Some Selected Equity Mutual Fund Schemes (With Special Reference to SBI Mutual Funds)." IAETSD JOURNAL FOR ADVANCED RESEARCH IN APPLIED SCIENCES 264-277.
- [4] Dr. Ujjwal M. Mishra, Mr. Chetan Borole. 2017. "A Comparative Risk Analysis of Kotak Select Focus Fund (G) Mutual Fund Scheme." Imperial Journal of Interdisciplinary Research (IJIR) 413-416.
- [5] Aizenman J., Y.Jinjarak, and H. Zheng. 2016. "MEASURING SYSTEMIC RISK CONTRIBUTION OF INTERNATIONAL MUTUAL FUND." ADBI Working Paper Series Institute 11-27.
- [6] Maheswari, Y. (2021). PERFORMANCE EVALUATION OF SELECT MUTUAL FUNDS IN INDIA. Available at SSRN 3959872.
- [7] Mishra, U. M., & Kulkarni, A. (2017). A Study on various Ways of Tax Avoidance and Tax Evasion in Agricultural Sector and their Effect. Journal for Research | Volume, 3(04).
- [8] Sharma, K., & Joshi, P. (2021). A COMPARATIVE STUDY ON PERFORMANCE EVALUATION OF SELECTED DEBT, EQUITY AND HYBRID MUTUAL FUND SCHEMES IN INDIA. GAP GYAN-A GLOBAL JOURNAL OF SOCIAL SCIENCES, 4(2), 34-40.
- [9] Lavelle, B. A. (2018). Evaluating the Risk and Risk-Adjusted Performance of Micro- Cap Mutual Funds. J Stock Forex Trad, 6(180), 2.
- [10] Arslan, S. N. A. U. M., Nawaz, M. S., & BASHIR, D. (2015). Risk Adjusted Performance Evaluation of Balanced Mutual Fund Schemes in Pakistan. Risk, 7(1).
- [11] Shukla, S. (2015). A comparative performance evolution of selected mutual funds. International Journal of Science Technology & Management, 4(2), 140-149.

A STUDY ON CAPITAL STRUCTURE ANALYSIS OF SBI BANK



Riddhi Adthakkar: Assistant Professor, B.H.Gardi College of Engineering and Technology, Rajkot, Gujarat, adthakkariddhi@gmail.com

Dr. Aabha Singhvi: Assistant Professor, ROFEL GRIMS Management Studies Institute, Vapi, Gujarat, aabha.singhvi@gmail.com

Abstract

Capital structure means the amalgamation of debt and equity that is put into use by a company in mandate to finance the overall operations of the company. It permits the company to comprehend what kind of finance it should use to complete its activities and growth. It is therefore imperative to take decision regarding fixing the level of equity and debt. In this paper, the effect of the SBI banks capital structure is carefully examined. Research is conducted with the use of secondary data over a 5-year period to evaluate the capital structure of SBI Bank (i.e., 2017 to 2022). Financial tools like leverage and ratio analysis are used in an earnest manner during the research. The leverages and ratios are the greatest noteworthy signs to calculate the financial enactment of a company. By analyzing financial performance of the company, it helps in making financial decision. There are various elements which affect the decision making of capital structure like cost of capital, control and elasticity. Therefore, choosing an appropriate capital structure is a risky decision that all organizations should make. Therefore, both the good and bad implications of this capital structure decision will have an impact on the company's future.

Keywords

Ratio, Leverage, Capital Structure, Debt and Equity Capital

Introduction

Finance is the lifeline and blood of any business or organization, which are recognizable by the size of the business, nature of the business, government policy, taxation, variation of earning etc. Long term capital can be upraised with the assistance of various means of sources like equity shares, preference share, debentures, long term loans, retain earnings etc. If the corporation maintains appropriate and suitable level of capital, it will gain more profit and they can afford high dividends to its shareholders.

Capital structure refers to the varieties of securities and the comparable amount that sort up capitalization. It denotes to the association among the numerous long-term sources funding

such as debt capital, preference share capital and equity capital.

Determining the appropriate capital structure is the significant choice of the financial management as it is straightly connected to the worth of the organization. Capital structure is the perpetual financing of the organization signified chiefly by long-term debt & equity.

Research Problem

Indian banking is the lifeline of the nation and its people. Banks play an important role in Indian economy. It increases GDP around 7.7% and it generates employment in the economy for about 1.5 million people. To sustain the development of the economy banks, need to focus on financial performance. If the banks are not performed well, it will have effect on countries economy. Therefore, this study is based on the financial performance of the State bank of India to evaluate the financial strength of the bank. The research is to discover the varied portion of capital structure in the banking business as it affects the entire form of the organization. So, it is very important to have a clear idea about these issues and cost of diverse sources in the banking industry. So, the problem in this research is to discover out effective basis of capital structure.

Objective Of The Study

- To measure the fluctuations in quantity of equity & debt.
- To know the portion of equity & debt in capital structure.
- To study the capital structure of SBI Bank.
- To know about the liquidity position of State Bank of India.
- To know the profitability position of State Bank of India.

Research Methodology

Data analysis for the research study involves leverage and ratio analysis. As a result, the study is based on secondary data that was gathered from a variety of sources such as the organization's annual reports and financial statements, websites, journals, etc. The time frame used for ratio analysis and leverage is 2017 to 2022. The collected data was analyzed with the help of ratio

analysis. The accounting ratios are used to predict the financial performance of these bank, which gives us an idea to take corrective action.

Review Of Literature

Bhatasana (1999) conducted research on SBI financial performance of year 1980 to 1995. His study mainly focused on productivity & profitability of SBI. He identified progress in deposits, adequacy of capital fund, expansion of branches in rural areas and comparatively less borrowing from RBI in his period of study about SBI. He observed that SBI improved the productivity and profitability among public sector banks.

Saleem (1995) examined the strategic banking sector changes and found that the Indian financial system is characterized by a high degree of regulation and a majority of public sector units, driven mostly by socio-economic concerns. Financial stability, operational effectiveness, viability, and profitability are the main concerns relating to global competitiveness.

Gitman (2003) this study challenges the conventional wisdom that a firm's worth is maximized when its cost of capital is kept as low as possible. The most advantageous capital structure is one that reduces the firm's cost of capital and, as a result, increases the firm's profitability and market value. Unfortunately, financial managers lack a precise strategy for deciding on the best capital structure.

Boadi & Li (2015) did an empirical analysis of "leverage and financial performance of listed non-financial organizations in Ghana" by selecting 15 companies and compiling information about their performance from the Ghana stock exchange fact book." Return was used as a reliant on mutable in the study, while the debt-to-equity ratio was used as an autonomous variable to explore the relationship between leverage and profitability. The analysis found that the relationship between ROE and both short-term and long-term debt was negligible. Sales growth showed a strong and positive relationship with ROA, ROE, and NPM for all debt measures. However, firm size showed a negligible and unimportant relationship with ROA, ROE, and NPM for all debt measures.

A. M Goyal (2012) (Goyal, 2013) this research focuses on the correlation among capital structure & profitability of listed Indian public sector banks. A research was conducted to determine the effect of capital structure on profitability of Indian public sector banks over a period of 2008- 2012. The study found that strong positive dependence of short term debt to capital (STDTC) on all profitability measures (ROA, ROE and EPS). Long term debt to

capital (LTDTTC) is having a negative correlation with ROA (return on assets), ROE (return on equity) and EPS (earnings per share).

Habib et al. (2016) titled "Impact of debt on profitability of enterprises; evidence from Pakistan's non-financial sector" was published. This study includes 340 companies listed on the KSE in order to increase the empirical evidence already available about the effect of debt on company profitability. The research examined the financial accounts of each sample company to see how debt affected each company's profitability. Conclusion: Debt and profitability have a considerable but unfavorable connection, with the debt level having an impact on profitability.

Kumar, (2015) made a study entitled "Capital Structure and its Impact on Profitability". The study has made with the objectives of identifying the relationship between capital structure and profitability of SME, finding an optimal capital structure that would be associated with the best performance, finding an optimal capital structure that would be associated with the best performance and finding out the impact of capital structure on profitability. Data collected from some secondary sources studied from 2008 to 2013 and it is concluded that the debt/equity composition varies substantially among the SME and there is significant relationship between Debt to total funds and ROE. There is no relation or there is insignificance between debt to total funds and ROCE.

Kumar (2015), titled "Capital Structure and its Impact on Profitability," The study's objectives include figuring out how a small business's profitability and capitalization are related, identifying the optimal capital structure that would be associated with the best performance, and figuring out how capital structure affects profitability. Data gathered from a few secondary sources were examined between 2008 and 2013, and it was shown that there is a strong correlation amongst owed to entire funds and return on equity (ROE), as well as considerable variation in the debt/equity mix among SME. Debt to total funds and ROCE are unrelated or insignificant to one another.

Subramanian and Swami (1994) "To study on financial analysis of State Bank of India", from his study, the analysis revealed that higher per employee salary level need not result in poor efficiency and business per employee efficiency coefficient was also calculated.

Among the PSBs bank of Baroda registered the high efficiency and operating profit per employee. Among the private sector banks Indus Bank followed by Citibank Registered highest and second highest operating profit per employee respectively.

Analysis and Interpretation of Data

Ratio Analysis

A simple statistical examination of the relationship between two single digits is a ratio. For instance, as the needed ratio of two mathematical phrases. A quantitative study of information from a company's financial statements is called a ratio analysis. When line-item data from financial accounts of a corporation is compared, understandings about turnover, fluidity, operational efficiency, and soundness are revealed. Ratio analysis may indicate an enterprise's performance over time and relate it to additional in the similar business.

Babalola, (2012) in their research on "The Effects of Optimal Capital Structure on Firm's Performances in Nigeria" examined an optimal capital structure to maximize the performance of selected firms under the same systematic risk. They found a strong curvilinear relation between ROE and the debt-to-assets ratio. According to the dominant corporate finance paradigm, capital structure choice is a trade-off between the costs and benefits of debt. The theory predicts that the value of firms will first increase, then decrease, as debt ratio increases. Most existing papers on capital structure require firm's performance or firm's value to bear the linear relation with debt ratio, but the empirical evidence does not support this. In contrast, there is an evidence that the quadratic relations are significant, yet these have not received much attention in the finance literature.

Kumar, (2015) made a study entitled "Capital Structure and its Impact on Profitability". The study has made with the objectives of identifying the relationship between capital structure and profitability of SME, finding an optimal capital structure that would be associated with the best performance, finding an optimal capital structure that would be associated with the best performance and finding out the impact of capital structure on profitability. Data collected from some secondary sources studied from 2008 to 2013 and it is concluded that the debt/equity composition varies.

Reserves to Equity Capital Ratio

This ratio creates link between the equity share capital and reserves. It shows the sum recollected by the firm for imminent development. The standing of the company would be improved the higher the ratio. The ratio indicates that how much profits are generally reserved by the firm for upcoming development. Greater the ratio, generally, sound is the position of firm.

$$\text{Reserves to Equity Capital Ratio} = \frac{\text{Reserves}}{\text{Equity share capital}}$$

Table 1: Reserves to Equity Capital Ratio (In crores)

Year	Reserves (Rs)	Equity Capital (Rs)	Ratio (In times)
2017-18	218236.10	892.46	244.53
2018-19	220021.36	892.46	246.53
2019-20	231114.97	892.46	258.96
2020-21	252982.73	892.46	283.46
2021-22	279195.60	892.46	312.83

(Source: www.moneycontrol.com)

From the above table, it can be noticed that the ratio is greater in 2021–2022, at 312.83 times, compared to 244.53 times in 2017–2018. Over the course of the study, the ratio has tended to rise. The increased ratio demonstrates the SBI bank's improved condition. Therefore, in order to sustain the current trend in the future, more reserves and equity capital must be increased to a specific amount.

Current assets to proprietor's fund

By separating the entire current asset by the amount of shareholders' fund, the ratio is obtained. For this ratio, there is no "rule of thumb". Various percentages may apply to different businesses depending on the nature of the business. This ratio is used to assess how much of shareholders' funds are allocated to current assets.

$$\text{Current assets to proprietor's fund} = \frac{\text{Current Asset}}{\text{Shareholder's fund}}$$

Table 2: Current Assets to Proprietor's fund (In crores)

Year	Current Assets (Rs)	Proprietor's fund (Rs)	Ratio (In times)
2017-18	2353773.03	219128.56	10.74
2018-19	2674694.73	220913.82	12.11
2019-20	2866000.12	232007.43	12.35
2020-21	3144305.18	253875.19	12.38
2021-22	3468443.78	280088.06	12.38

(Source: www.moneycontrol.com)

From the above table the current asset to proprietor's fund is equal in the years 2020–21 and 2021–22 with 12.38 times, but it is lowest in the year 2017–18 with 10.74 times, according to the

supplied data. Owner's fund value has continued to rise throughout the research study. The cost of current assets should be raised and maintained in command to counteract the shifting tendency and have a beautiful fiscal presentation in the future.

Debt equity ratio

External-internal equity ratio is another name for debt-to-equity ratio. It compares the overall debt of the business to the capital the owners initially invested and the profits held through time. Outsider's funds and shareholder's funds are the ratio's two primary gears.

$$\text{Debt equity ratio} = \frac{\text{Outsiders fund}}{\text{Shareholders}}$$

Table 3: Debt-equity ratio (In crores)

Year	Debt fund (Rs)	Proprietor's fund (Rs)	Ratio (In times)
2017-18	362142.07	219128.56	1.65
2018-19	403017.12	220913.82	1.82
2019-20	314655.65	232007.43	1.35
2020-21	417297.70	253875.19	1.64
2021-22	426043.38	280088.06	1.52

(Source: www.moneycontrol.com)

The debt equity ratio has a varying trajectory, as seen by the table 3 above. The ratio was 1.65 times in the 2017–18 fiscal year, and it will be 1.52 times in the 2021–22 fiscal year. When compared to the study year 2020–21, the worth of the shareholders' and outsiders' funds had abruptly changed in 2021–22. Therefore, the anticipated debt to equity ratio will rely on the SBI bank's future borrowings.

Fixed assets turnover ratio

Fixable asset an efficiency ratio called turnover shows how effectively or efficiently a company uses fixed assets to produce revenue. The ratio subtracts net fixed asset from net sales over a yearly period.

$$\text{Fixed assets turnover ratio} = \frac{\text{Cost of goods sold/ Sales}}{\text{Fixed asset/capital}}$$

Table 4: Fixed Asset Turnover Ratio (In crores)

Year	Cost of goods sold (Rs)	Fixed Asset (Rs)	Ratio (In times)
2017-18	265,100.00	39992.25	6.62
2018-19	279,643.54	39197.57	7.13

2019-20	302,545.07	38439.28	7.87
2020-21	308,647.01	38419.24	8.03
2021-22	316,021.20	37708.16	8.38

From the above table it shows that the fixed assets turnover ratio has increased throughout the years. In 2017-18 it was 6.62 times whereas in the year 2021-22 it was 8.38 times. It was discovered throughout the analysis that the SBI bank ratio is increasing. Hence it can be seen that SBI bank is properly utilizing its fixed assets in generating the revenue.

Earnings Per Share

EPS is a crucial financial metric that shows a company's profitability. It is determined by dividing the business's net income by the total number of outstanding shares. Market participants typically use this tool to evaluate a company's profitability before investing in its shares. Higher earnings per share are always better. EPS is calculated by minusing preferred dividend from net income and dividing by the average common shares outstanding.

Table 5: Earning Per Share (Ratio)

Year	2017-18	2018-19	2019-20	2020-21	2021-22
Ratio	40	25	22	3	-5

(Source: www.moneycontrol.com)

From the above table indicates, that the EPS displays a decreasing tendency. The ratio is greater in 2017-18 with 40 and it is lessening in the year 2021-22 with -5. It shows that profitability of bank is decreasing from several years. Hence, the EPS will depend upon the future earnings and profitability of the SBI bank.

Leverage

Leverage often refers to a firm's ability to rise the yield to its equity shareholders by using fixed-cost assets or finances. It is the law and relationship between two connected variables, which might be ones relating to sales, costs, output, and profits. Any strategy that uses borrowed money to make purchases with the expectation that future earnings will be many times greater than the cost of borrowing is known as leverage. Typically, an investor will put a cap on the amount of risk it is willing to accept and a limit on the amount of leverage it will need.

Operating leverage

The capacity of a company to employ operational expenses to amplify the possessions of deviation in sales on its earnings

before interest and taxes is known as operating leverage. The break-even point of a business is determined using operating leverage, which also aids in determining the right selling prices to cover all expenditures and make a profit.

Operating Leverage = Sales

Earnings before interest and tax (EBIT)

Table 6: Operating leverage (In crores)

Year	Sales	EBIT (Rs)	Ratio (In times)
2017-18	265,100.00	205156.55	1.29
2018-19	279,643.54	209955.80	1.33
2019-20	302,545.07	227371.38	1.33
2020-21	308,647.01	225994.79	1.36
2021-22	316,021.20	222623.68	1.41

(Source: www.moneycontrol.com)

From the above table it is seen that the operating leverage has been in growing trend with highest in the year 2021-22 with 1.41 times and lowest in the year 2017-18 with 1.29 times. In order to account for the effects of changing sales on its earnings before interest and taxes in the future, SBI bank should employ the maximum level of operational expenses going forward.

Financial leverage

Financial leverage, sometimes referred to as gearing ratio or trading on equity, is a tool cast-off to increase shareholder profits. Financial events are linked to financial leverage, which appears when fixed financial expenses appear in an organization's EBIT. Financial leverage is the process of using borrowed money (debt) to fund the acquisition of assets in the hope that the income or capital gain from the new asset would outweigh the cost of borrowing.

Financial Leverage = Earnings before interest and tax (EBIT)

Earnings before tax (EBT)

Table 7: Financial leverage (In crores)

Year	EBIT (Rs)	EBT (Rs)	Ratio (In times)
2017-18	205156.55	59511.55	3.45
2018-19	209955.80	55436.02	3.78
2019-20	227371.38	68132.61	3.33
2020-21	225994.79	71554.16	3.15
2021-22	222623.68	67874.68	3.28

(Source: www.moneycontrol.com)

From the above table it is prominent that the financial leverage is more in the year 2018-19 with 3.78 times and it is lesser in the year 2020-21 with 3.15 times. It is seen in the study that the financial leverage show an instable movement. It is because interest on earnings are decreased against the tax. Hence, SBI bank has to increase the financial leverage in command to lesser the financial jeopardy in the forthcoming.

Combined leverage

Leverage is used to increase both operating and financial earnings for the company. The sum of these two leverages, known as total leverage or combined leverage, is determined by taking into account how well the business can fend off fixed expenses (fixed operational charges in the case of operating leverage and fixed financial charges in the case of financial leverage).

Combined leverage = Operating leverage * Financial leverage

Table 8: Combined Leverage (In crores)

Year	Operating Leverage	Financial Leverage	Ratio (In times)
2017-18	1.29	3.45	4.45
2018-19	1.33	3.78	5.02
2019-20	1.33	3.33	4.43
2020-21	1.36	3.15	4.28

From the above table it is represented that the combined leverage shows an inconsistent trend. The shifting trend shows weak and strong side of the management. Therefore, depending on how SBI Bank presents its operating and financial leverage in the future, the expected level of combined leverage may increase or decrease.

Findings and suggestion of the study

- According to the study's findings, bank management should give those crucial factors more consideration when deciding on their optimum capital structure and increase the efficiency of their core business activities, which will increase shareholder value.
- Cost of capital should be maintained according to the requirement of the firm.
- To get financial strength firm need to manage the assets properly.
- Leverage are the signs of liquidity, hence it must be more

focused.

Conclusion

Every concern aims to maximize company value and reduce capital costs by establishing the best capital structure for the business. The goal of the study is to examine SBI Bank's capital structure from 2017–18 to 2020–21. The study has provided knowledge on the allure of financial instruments, their prominence, and their effectiveness in influencing the capital structure of SBI bank. The analysis found that a number of factors and leverage might be used to identify SBI bank's optimum capital structure. According to the study's full findings, the firm's equity and reserves must be adequate to cover its fixed costs, and it must also reduce its level of financial leverage in order to avoid future financial danger.

Bibliography

- Bhatasana. (1999). 'Appraisal of financial performance of state bank of India'. PhD report, Saurashtra University, Rajkot.
- Gitman, L. (2003). Principles of managerial finance.
- Govoury, A. &. (2011). "The impact of capital structure on profitability", Managing Global Transitions, 9(4), 371-392.
- Goyal, A. (2013). "Impact of Capital Structure on Performance of Listed Public Sector Banks in India". International Journal of Business and Management Invention, 2-10, 35-43.
- Hovey, M. (2007). "Liquidity, Profitability and Ownership Structure of listed firms in China". Source:<http://ssrn.com/abstract/1009432>.
- Madhavi, D. V. (2015). "Comparison of capital structure of public sector banks and private sector banks and its effect on bank's profitability". International Journal of Management and Social Science Research Review, 1 (11), 176-183.
- Singla. (2008). financial performance of banks in India. ICDAI journal of management, 07.

Webliography

www.moneycontrol.com

www.sbibank.com

EFFICIENCY OF NUDGES IN E-COMMERCE: AN EXPERIMENTAL STUDY



Dr. Nandini Sengupta: Associate Professor, K. C. College, HSNC University, Mumbai

Komal Kalra and Saeed Joshi: Department of Economics, K.C.College, HSNC University, Mumbai

Abstract

The goal of a seller is to drive sales and to do so understanding the way the potential customers think is crucial. It enables the seller to better market the products to the customers and convince them to take a leap towards its purchase. Sellers have always manipulated customers creatively by using different kinds of nudges. With changing times and the shift from in-store to online shopping nudges continue to exploit the cognitive biases of customers. This paper is an attempt to test the efficiency of various nudges in e-commerce based on the cognitive biases of consumers.

Keywords

Nudge, Cognitive bias, e-commerce

Introduction

Imagine you are on Amazon to buy a Harry Potter book. The website may present the book to you in different ways so that you purchase the book. It may show you the current market price as Rs 400 along with the previous price of Rs 500. It may show you direct competitor comparisons and try to convince you that one can buy it 15% cheaper on Amazon than in a popular bookstore. It may offer you Harry Potter part 1 along with Part 2 and 3. All of these are different kinds of nudges that are used by ecommerce sites to influence consumer behaviour. Often nudges are used by e-tailers to exploit cognitive biases of consumers for increasing their sales. Cognitive bias/ illusion is a tendency to think in a certain way, even if it is not the most logical or rational way. They are basically errors in the way we perceive situations and make judgements accordingly. Social scientists Daniel Kahneman and Amos Tversky used vision and decision-making to provide psychologically, linguistically, and mathematically possible explanations for human error in statistical and logical judgment. There are various cognitive biases commonly used in marketing like loss aversion bias, anchoring bias, framing effect, confirmation bias, zero risk bias, more exposure effect etc. There have been studies on exploiting consumers' cognitive biases using nudges in commodity markets. This study aims to focus on

the e-commerce platform only as consumers are increasingly shifting from the physical market to the online market. The e-commerce platform due to its unique features like more choice, comparability, review, attractive interface etc offers more opportunity as well as challenges to the seller to experiment with cognitive biases of consumers.

Objective and Methodology

The objective of this paper is to test the efficiency of nudges to exploit cognitive biases of consumers on e-commerce platforms. An experiment was conducted to observe the efficiency of different nudges on the digital platform in order to manipulate the way consumers act and behave. Different nudges were employed to see the consumer behaviour, keeping in mind the different cognitive biases. The experiment was conducted using a google form. Snowball sampling method was used to identify a research sample.

Review of Literature

Until recently, there have been many studies on nudges on the physical shopping environment. With increasing options available on the e-commerce platform interest in digital nudging has increased manifold among the researchers. (Mirsch et al. 2017; Weinmann et al. 2016). Digital nudging, just like in-store nudging, relies on various cognitive stages of information processing. Nudges help the decision making quick, automatic and effortless as compared to a situation where all information gathered about the product has to be weighted and then a decision is made (Evans 2008).

E-commerce sites use various ways of nudging to gain consumers' attention. A study on ten popular online websites shows that there is a lack of trust on these websites. Choosing a product from the huge number of options available, becomes difficult. These websites have introduced 'visual nudging', to enable better and informed decision making. Star symbols, thumbs up and down are some of the nudges used. Also, online ratings and reviews are significant for a brand image. (Karvonen et al 2010). Some more insightful methods of digital nudging

could be improving user interface that need to be executed for better results. An experiment was conducted where User 1 noticed all the information while User 2 missed it. This failure is inattention blindness which can be corrected by attentive user interface techniques like eye tracking technology. (Hummel, 2018). Designers of e-commerce platforms try to influence people's choices by nudging them to become more socially and environmentally responsible, adopt a healthier lifestyle etc. They use nudging techniques like defaulting, partitioning options based on different attributes or star rating (Johnson et al. 2012). Online customer reviews, user ratings etc have a significant influence on the purchase decision of customers. (Babic Rosario et al. 2016). Jesse et al (2021) investigate the effects of highlighting, defaults, social information, and warnings on the decision-making of online users. Their results show that a hybrid nudge, which both involves setting a default and adding social information, significantly increases the likelihood that a nudged item is selected. Moreover, it may help decreasing the required decision time for participants while having no negative effects on the participant's satisfaction and confidence. They emphasize on the type of nudge for help making a decision by the consumer.

The Experiment

An experiment was conducted posing questions to the respondents regarding the various aspects that they observe and prefer while shopping on e-commerce sites. A few of the questions were according to the A/B testing or split testing method. This is a marketing technique that allows two versions of a variable, say a web page or application to compare which one is better. The two versions A and B are shown at the same time to various respondents/website visitors (in our case) to determine which version leaves the maximum impact and drives business metrics. Various nudges were designed for different products to exploit seven (5) cognitive biases namely framing effect, hyperbolic discounting, confirmation bias, decoy effect and herd mentality. For each cognitive bias a particular question was posed. through a google form. We chose daily use products like (multivitamin tablets, washing powder, mobile phones etc) and a regular user interface to make it relatable and comfortable for the respondents. The period of study was from February-June 2022.

The pre-requisite for our target group was that they should have shopped online earlier. This was essential as their past experiences of shopping online would enable them to understand the relevance and meaning the nudges. Our sample group included 87 people from the age of 18 years and above. The

period of study was from February-June 2022.

Age (years)	Male	Female	No. of participants	Percentage
18-30	15	26	41	47.1%
30-45	7	10	17	19.5%
45-60	7	21	28	32.2%
60 above	0	1	1	1.1%
Total	29	58	87	100%

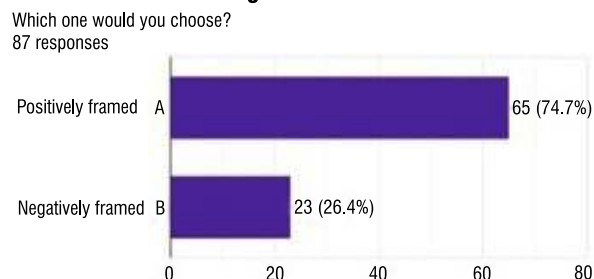
Cognitive Biases, Digital Nudges and their Outcome

1) Framing Effect - Decisions are affected by the way a particular information is presented. Equivalent information may be more or less attractive depending upon the features that are highlighted. Customers tend to prefer products presented in a positive manner rather than in a negative manner.

Experiment: We chose a multivitamin tablet bottle as our product for this experiment. We shared two images of the same bottle. Option A highlighted the benefits of using it whereas option B highlighted the negative impact of not using it. The respondents were to select the more appealing marketing style that would urge them to buy the multivitamin tablet bottle. We tried to nudge people towards Option A.

Result: Our results showed that 74.7% of the people chose option A which was highlighting the benefits of using the product. This is because positive framing supports clear thinking and optimism. Sentences focusing on capabilities lead to positive actions. Hence, our result suggests that a positively framed nudge is an efficient way to market a product using the cognitive bias of framing effect. Thus our nudge was efficient to exploit the cognitive bias of framing effect.

Chart 1: Outcome of Framing Effect



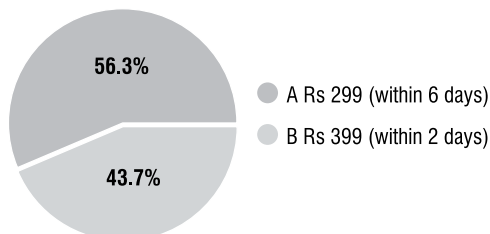
2) Hyperbolic Discounting - There is a tendency to have a stronger preference for immediate payoffs.

Experiment: The product used for this experiment was washing

powder. This is a commonly used essential product which does not have enough substitutes. Two options A and B were given to choose from. The product was the same but the difference lied in the price and the time of delivery. Paying a higher price would result in faster delivery, and thus, an immediate payoff. Option A was priced at Rs 299 with a delivery time of 6 days (low price, late delivery) whereas Option B which was priced at Rs 320 with a delivery time of 2 days (high price, early delivery). We tried to nudge the people towards Option B by selecting a product like washing powder which is a sort of a necessary good given people wash clothes everyday.

Result: Our results showed that 43.7% of people chose to pay Rs299 and were ready to wait for 6 days for their product to arrive (Option A). On the other hand 59.4% were ready to pay Rs399 rather than waiting for additional 4 days (Option B). Thus the nudge that we chose to exploit the cognitive bias of hyperbolic discounting was quite efficient. The experiment was successful in this case because the product was sort of a necessary commodity for daily use. The result could have been different if it had been a luxury or a more expensive commodity which has a lesser urgency. Then people would not have been impatient to wait for it.

Chart 2: Outcome of Hyperbolic Discounting



3) DECOY EFFECT: The decoy effect describes how when choosing between two options, the addition of a third less attractive option which is the decoy, can influence the choice and perception between the original two options.

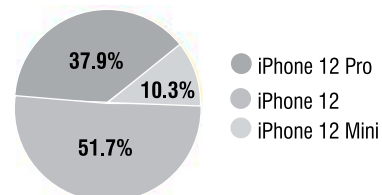
Experiment: This time the product chosen was iPhone. Survey takers were presented with 3 options. Option A being the costliest (iPhone pro for \$999), option B as the mid price (iPhone 12 for \$799) and Option C with the lowest price (iPhone 12 mini at \$699). Our decoy was Option B. We wanted to nudge the respondents towards option B.

Result: The results showed that only 10% chose the cheapest iPhone 12 mini. About 37% chose mid-priced option B iPhone 12 and 52% chose the most expensive option C iPhone 12 Pro. Since, people did not choose option B which was the decoy, the nudge was inefficient to exploit the cognitive bias of decoy effect.

This may be because iPhone or any Apple product for that matter is not just bought for its functions or tech but it also carries some amount of snob appeal. Also, all Apple products are costlier than its competitors' products, therefore the people who can afford them might as well buy the newest and most advanced version even if they need to pay a little more. Another reason could be that since it was just an experiment people who aspire to buy the most expensive iPhone but cannot afford it, get the pleasure of at least selecting that option. We think that this nudge would have worked if the product had been a tub of popcorn or maybe a cup of coffee.

Chart 3: Outcome of Decoy Effect

Which one would you choose?
87 responses



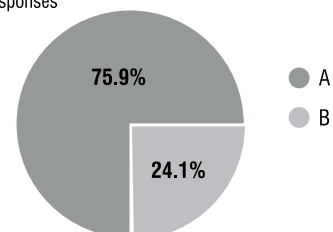
4) CONFIRMATION BIAS: Generally, people long for the reassurance of their existing beliefs. Confirmation bias is the tendency to interpret new evidence as confirmation of one's existing beliefs.

Experiment: We showed people two user interfaces (UI) while checking out post shopping. Option A shows the checkout option only while option B shows the checkout option along with bullets assuring safe checkout, quality guarantee and free shipping. We know for a fact that both the options provide the same services, it is just that option B announces it explicitly on the interface in order to confirm the provision of this service. We wanted to nudge the consumers towards option B by confirming the existing belief of safety and quality assurance.

Result: The results show that 24% of respondents chose option A, while 75% chose option B. The nudge could exploit the confirmation bias of the consumers. While checking out, the nudge in option B provided a reassurance regarding the security aspect explicitly whereas option A was silent about it. Thus, the confirmation bias is seen to be efficient.

Chart 4: Outcome of Confirmation Bias

Which one would you choose?
87 responses



5) HERD MENTALITY: Herd mentality is the tendency of humans to follow what others do. It essentially gives us a feeling of safety.

Experiment: We asked people if reviews/ratings are important for them while purchasing online and do the reviews affect their purchase decisions. We wanted to test the cognitive bias of herd mentality through the nudge of reviews and ratings as reading opinions of others and ratings given by other users give an idea of the product to be purchased.

Result: The results showed that 56% of people said that reviews are important for them to make purchase decisions. This is because when people are buying a new product (one we have never bought earlier) or trying out a new website to order a product, they would like to know the opinion and experience of the previous buyers. It is important to note that when some people said reviews are "important" for them, they categorically meant negative reviews. A lot of people have a perception that positive reviews can easily be forged, so they take those negative reviews seriously. For 41% of the respondent reviews matter depending upon the product. If they are buying a product that is well known or has been purchased before or not very expensive then these respondents do not bother to check the reviews. About 2% of people thought that reviews are not important. Thus, the nudge of reviews and ratings definitely exploit the cognitive bias of herd mentality.

Chart 5: Outcome of Herd Mentality



Conclusion

Our experiment has given us mixed results. Our nudges could exploit the cognitive bias of customers with framing effect, hyperbolic discounting, confirmation bias and herd mentality. The nudge could not prove to be efficient in case of decoy effect. There are various factors which affect the cognitive biases. These could be age, preconceived notion, purchasing power, layout of the e-platform etc. This study was limited to only five nudges. There are many other kinds of nudges which can be explored. A comparative study of these nudges on the online and offline platforms can be attempted. An in-depth study can be made by looking at consumer behaviour with respect to income levels, product categories, gender etc.

Bibliography

- Ariely, Dan (2010), Predictably Irrational, Harper Perennial

- Babić Rosario, A., Sotgiu, F., De Valck, K., and Bijmolt, T. H. 2016. "The Effect of Electronic Word of Mouth on Sales: A Meta-Analytic Review of Platform, Product, and Metric Factors," *Journal of Marketing Research* (53:3), pp. 297-318
- Evans, J. S. B. 2008. "Dual-Processing Accounts of Reasoning, Judgment, and Social Cognition," *Annual Review of Psychology* (59), pp. 255-278
- Hummel, D., Toreini, P., & Maedche, A. (2018). Improving digital nudging using attentive user interfaces: theory development and experiment design. 13th International Conference on Design Science Research in Information Systems and Technology (DESRIST). (https://www.researchgate.net/profile/Dennis_Hummel/publication/325673807_Improving)
- Jesse M, Jannach D, Gula B. Digital Nudging for Online Food Choices. *Front Psychol.* 2021 Dec 20;12:729589. doi: 10.3389/fpsyg.2021.729589. PMID: 34987443; PMCID: PMC8722444.
- Johnson, E. J., Shu, S. B., Dellaert, B. G., Fox, C., Goldstein, D. G., Häubl, G., Larrick, R. P., Payne, J. W., Peters, E., and Schkade, D. 2012. "Beyond Nudges: Tools of a Choice Architecture," *Marketing Letters* (23:2), pp. 487-504
- Karvonen, K., Shibasaki, S., Nunes, S., Kaur, P., & Immonen, O. (2010). Visual nudges for enhancing the use and produce of reputation information. Proceedings of the workshop on user-centric evaluation of recommender systems and their interfaces at the 4th conference on recommender systems (RecSys10) Published by CEUR-WS.org, ISSN 1613-0073, <http://ceur-ws.org/Vol-612/paper1.pdf>
- Mirsch, T., Lehrer, C., and Jung, R. 2017. "Digital Nudging: Altering User Behavior in Digital Environments," *Wirtschaftsinformatik: AIS*.
- Nouri, P., Imanipour, N., Talebi, K., & Zali, M. (2017). Heuristics and biases in entrepreneurial marketing: Some new insights. *International Journal of Entrepreneurship*, 21(3), 1-9.
- Puaschunder, J. M. (2017). Nudging in the digital big data era. *Eur. J. Econ. L. & Pol.*, 4, 18.
- Levitt Steven, Stephen Dubner, *Freakonomics: The Hidden Side of Everything*, William Morrow, 2005
- Weinmann, M., Schneider, C., and Brocke, J. v. 2016. "Digital Nudging," *Business & Information Systems Engineering* (58:6), pp. 433-436.

A study on sharpe's single index model and its application to build an optimal portfolio with selected stocks of NIFTY 50 Index



Dr. Manishkumar R Pathak: Associate Professor, C K Shah Vijapurwala Institute of Management, Vadodara, manish.mba8587@gmail.com

ABSTRACT

Portfolio management is fundamental because it reduces risk by diversifying investments and shifting funds across assets based on their performance. When it comes to investment decisions, risk and return are critical factors to consider. Investments should be made or not, and which securities should be included in the portfolio are among the decisions that must be made using Sharpe's Single Index Model. The main aim of this paper is to get comprehensive understanding of Sharpe's Single Index Model and to construct an optimal portfolio using this method. In this study, totally 30 securities have been selected from NSE. For this, the monthly closing price of all selected securities for the period from 1st April 2017 to 31st March 2022 have been considered. Sharpe Single Index Model formulate a cut-off rate and select those securities whose excess return to beta ratio is greater than cut-off rate. The study reveals that out of 30 companies only 6 companies are selected to constitute optimum portfolio. Proportion of Investment in each selected securities are computed on the basis of Beta, Unsystematic Risk, Excess return to beta ratio and Cut-off rate of each related securities.

Keywords: Sharpe's Single Index Model, Beta, Unsystematic Risk, Excess Return to Beta Ratio

INTRODUCTION

Modern Portfolio Theory (MPT) is a realistic strategy for picking assets with the goal of maximising total returns while maintaining a manageable degree of risk. Diversification is an important part of the MPT hypothesis. The majority of investments are either high risk or low risk and low return. Investors, according to Markowitz, may obtain the best outcomes by selecting an ideal balance of the two according on their particular risk tolerance.

According to current portfolio theory, every investment's risk and return characteristics should not be judged on their own, but rather on how they impact the entire risk and return of the portfolio. That is, an investor may build a portfolio of several assets to generate larger returns without taking on more risk.

The single-index model (SIM) is a simple asset pricing model for

calculating a stock's risk and return. William Sharpe created the concept in 1963, and it is widely utilised in the banking business.

Due to the rigours required in assembling an expected returns, standard deviation, variance, and covariance of each asset to every other investment in the portfolio, the Markowitz Model faced major practical constraints. The Sharpe Model has made this procedure easier by tying a security's return to a single Market index.

Only assets with a greater excess return to beta ratio than the cut off rate are included in the optimum portfolio generated by this methodology. The single Index methodology creates a cut-off rate based on data inputs and only chooses stocks that have a greater excess return to beta ratio than the cut-off rate. The proportion or weightage of the investment of the selected security is then calculated using the security's residual variance (unsystematic risk), excess return to beta ratio, beta, and cut-off rate. The model is implemented using a variety of financial and statistical approaches.

With the aid of the Single index model, portfolio managers and security analysts may quickly determine if a security should be included in an ideal portfolio based on its excess return to beta ratio. The single index concept produces a 'single value,' which explains why any investment should be included in a portfolio. This 'single number' represents the security's excess return to beta ratio. For every unit of systematic risk, this excess return to beta ratio reveals how much more return is created for the securities (non-diversifiable risk).

LITERATURE REVIEW

Tanuj Nandan and Nivedita Srivastava (2017) used Sharpe Single Index Model to build an optimum portfolio. The goal of this study is to assess the risk and return of all NIFTY 50 stocks, as well as the proportion of each stock in a portfolio. Weekly NSE indices and prices of all 50 Nifty 50 equities are used to compute weekly returns of each security as well as market returns for the period between August 1, 2010, and July 31, 2015. This study relies on secondary data which is collected from various

websites. According to the empirical findings, only 24 stocks are picked for inclusion in the ideal portfolio out of the 50 stocks analysed for the research.

R Nalini (2014) using the Single Sharpe Index methodology constructed a portfolio of fifteen businesses from the Bombay stock market and calculated the proportion of investment in each stock from 2009 to 2014. The study's goal is to figure out how much of each stock in the ideal portfolio should be invested. The data for this study was collected from a website, which is a secondary source. For the study, 15 businesses were chosen from the S&P BSE Sensex index. Four companies were chosen from a list of fifteen to build a portfolio based on a cut-off rate, and the weightage of investment in each stock was determined using a single Sharpe index model.

Niranjan Mandal (2013) using the Sharpe single index model and the BSE Sensex as a market performance index, empirically created an optimum portfolio from April 2001 to March 2011. The BSE Sensex was used as the market performance indicator for calculating the daily market return. The securities with Ci values larger than the cut-off point were chosen after the cut-off rate was calculated. The portfolio was built by examining 10 equities based on a cut-off rate. Furthermore, except for two stocks, the portfolio return is larger than the individual stock return, and the portfolio standard deviation is lower than the individual stock standard deviation.

S Subashree and M Bhoopal (2017) reported that the Banking and Automobile sectors were evaluated to develop a portfolio utilising Sharpe's single index model for the period of October 2016 to September 2017 from the Bombay stock market. The study's main goal is to use Sharpe's single index model to create an optimum portfolio based on the sectors chosen. This research is based on secondary information gleaned from the internet. A total of ten businesses were chosen and graded based on their excess return to beta ratio. From analysis, a portfolio of three firms was chosen, one from the banking industry and the other two from the car industry. Investors, policymakers, companies, and financial market players will benefit greatly from this research.

S. Poornima and Aruna P Remesh (2015) used Sharpe's single index approach to create an optimum portfolio for the period January 2010 to December 2015, with a focus on the Banking and IT sectors. The researcher can get practical knowledge and generate awareness in the minds of investors by doing this investigation. The study's major goal is to determine the proportion of each security investment in the optimal portfolio.

This research is entirely based on secondary data gathered with Prowess software. A total of 50 companies were chosen from each industry and subjected to Sharpe's single index model analysis, which included calculating excess return, beta, variance, and cutoff rate. A portfolio was then built by picking 11 stocks and their respective proportions of investments. This research might be useful to investors as a guide.

Mokta Rani Sarker (2013) used the Sharpe index approach to develop a portfolio of 164 businesses from the Dhaka stock exchange from July 2007 to June 2012. The goal of the study was to use a cut-off rate to build a portfolio and percentage of investments, as well as to advise investors and market makers on how to make better portfolio selections. Because the study is about the historical examination of reported financial data, secondary data was utilised. Based on the Markowitz model, the portfolio was formed by picking 20 equities from a pool of 164 stocks. This research attempts to examine the investment opportunities accessible to investors in terms of returns and risk while investing in equities of companies listed on the Dhaka stock market.

Varadharajan and Ganesh (2012) used the Single Index Model to analyse the stock portfolios of big size corporations in India from various industries. The main goal of this research is to determine the best portfolio from the selected firms in three important sectors: electricity, shipping, and textiles. Six firms were chosen from each category, for a total of eighteen companies chosen as examples. The firms are chosen depending on the size of their market capitalization. The portfolio was built using data from the first of April 2006 to the last day of March 2011, a period of five years. Only five firms were included in the portfolio formed from the eighteen companies, according to the research.

Dr. J Murthy (2018) studied The Construction of Optimal Portfolio Using Sharpe's Single Index Model - An Empirical Study on Nifty Metal Index every month from January 2012 to December 2016. The study's goal is to create an optimum stock portfolio from the selected metal stocks. The information was gathered from the National Stock Exchange's official website (NSE). Purposive sampling was used in this study. Only two firms, Tata Steel and Vedanta, were included in the ideal portfolio building, with a maximum advised investment of 86 percent in Vedanta and 14 percent in Tata steel, based on the study.

J. Francis Mary and G. Rathika conducted a research paper on The Single Index Model and construction of Optimal Portfolio with CNX Pharma Scrip. The main objective of the research is to

construct an optimum portfolio in CNX Pharma index stocks. The study has used secondary data. For this study, monthly closing price of 10 companies listed in NSE and CHX Pharma price index for the period from September 2010 to September 2014 have been used. Selection is done based on market capitalization. From the empirical analysis it can be concluded that out of 10 companies only 1 company is selected for investment purpose based on Cut-off point which is -0.11182.

Kapil Sen and CA Disha Fattawat (2014) empirically studied using Sharpe's Single Index Model and its use in optimum portfolio design. The study's goal is to estimate the best portfolio's return and risk by employing Sharpe's Single Index Model. Secondary sources of information were used to gather the necessary information. On a monthly return basis, the sample should be drawn from the BSE Sensex's 30 equities from January 2010 to December 2013. The overall risk in Markowitz's model is 2.21 percent, but the total risk of the optimum portfolio (in terms of SD) is 1.3874 percent under SIM using Markowitz's model as input.

Krishna Joshi and Dr. Chetan Parmar performed research on the Markowitz Model's application in the Indian stock market, with a focus on the Bombay Stock Exchange. The goal of this study was to see if the Markowitz Model of Portfolio Construction provides a better investment option for Indian stock market investors. The Markowitz Model was applied to 30 Listed Securities on the Bombay Stock Exchange in this study. Treynor's metric was used to analyse the performance of Portfolio Sharpe. Publication research, interviews, surveys, and other research approaches may be used as part of the process, which might contain both current and historical data. The study took place between January 2008 and December 2016. This methodology has been demonstrated to deliver greater insights to investors for investing purposes. These estimates suggest that an investor in the Indian stock market can lower their risk.

M Sathyapriya researched Optimum Portfolio Construction Using Sharpe Index Model in the Infrastructure and Pharmaceutical sectors. The study's main goal is to look at the asset value of different companies from the Infrastructure and Pharmaceutical industries that are listed on the NSE, calculate the excess return to beta ratio, rank the stocks based on it, and then determine the cut-off point. The necessary information must be gathered from a secondary source, such as websites or other databases. The information must be utilised between September 2008 to September 2012. The stock performance of 20 businesses from the Infrastructure and Pharmaceuticals sectors,

10 from each, is analysed. It has been discovered that the pharmaceutical industry outperforms the infrastructure sector by 80%. Because only one business is chosen for the portfolio, the performance of the infrastructure sector is lower than that of Pharma.

Saurabh Singh and Jayant Gautam investigated the single index approach and created an ideal portfolio of NSE India-listed banks. The study's major goal is to come up with the best portfolio for banks listed on the NSE. Sharpe's Single Index Model was used to design an optimum portfolio using the monthly closing prices of companies listed on the National Stock Exchange (NSE) and the monthly closing index value of the CNX BANK INDEX. The closing prices were gathered over five years, beginning in January 2009 and ending in December 2013. The study looks at 10 NSE-listed banks. Market capitalization is used to make the decision. Secondary data was employed in this investigation. Based on the empirical study, two firms are chosen for investment purposes out of a total of ten. In comparison to the Markowitz model, the Sharpe index approach is basic and straightforward, according to the study.

Dr. Archana H N and Srilakshmi D did a study on Building an Optimal Portfolio Using Sharpe's Single Index Model concerning Indian Capital Markets. The research's goal is to analyse the stocks on the BSE Sensex by computing systematic risk and return, as well as to build an ideal portfolio and determine the proportion of investment in each security. It is gathered from a variety of sources, including published papers, periodicals, textbooks, and the RBI and BSE websites. The closing prices of the BSE 30 equities were obtained from the Bombay Stock Exchange's website. The research will run from January 1st to December 31st, 2019. The equities from the BSE Sensex were chosen using Sharpe's Single Index Model. During the research period, it was discovered that the ideal portfolio consists of 10 securities.

Dr. Sanjeev Kumar and Mr. Vivek Bhatia researched Building an Optimum Portfolio Using Sharpe's Single Index Model in the Pharmaceutical and Banking Sectors on the BSE. This study relies heavily on descriptive analysis. The information was compiled using Yahoo Finance and Money Control.com. In this study, 20 stocks from two each industry are examined, namely the pharmaceutical and banking industries. The returns were calculated monthly using share price data for each stock and index for the period April 14, 2019, to April 14, 2020. According to the results of the investigation, 13 stocks out of 20 qualified for inclusion in the ideal portfolio. For Optimal Portfolio

Construction, eleven businesses from the banking industry and three companies from the pharmaceutical sector were chosen.

RESEARCH METHODOLOGY

The study is fully based on secondary data. The data has been collected from the websites like www.nseindia.com and www.monetcontrol.com. For the current study NIFTY 50 consider as market index. Monthly closing prices of all 30 securities listed in NSE are taken for the period of 1st April 2017 to 31st March 2022. The main aim of the study is to develop portfolio to evaluate the securities performance. The research paper is descriptive in nature. The tools that are used for analysis are Beta, Standard Deviation, unsystematic Risk, Excess Return to Beta Ratio, and Cut-Off rate. The following steps are followed to find out excess return to beta ratio and cut-off rate. The study is based on the Sharpe Index Model and hence the limitations of the model may inherent in the study.

Statement of Problem

When it came to selecting stocks from a broad pool of options, the investor faced several challenges. They are unsure of how much to invest or how to distribute their funds across several stocks. Investors will be able to see which stocks are performing well and at what proportion they should invest utilizing the Sharpe Single Index Model. The current study, titled "A Study on Portfolio Construction Using Sharpe's Single Index Model," used a random sample of 10 NSE stocks to calculate the results.

Objective of the study

A. Risk -return analysis of individual securities listed form Nifty50 Index.

B. Construct optimal portfolio using Single index Model form Nifty 50 index

Steps in Construction of Optimal Portfolio Using Single Index Model

The excess return to beta ratio is used to rank the securities in this model. Following that, all securities are arranged in order of rank. The cut-off rate is then computed and compared to the excess return to beta to determine whether to invest in the securities. The model describes how much weight should be given to each security to achieve an optimum portfolio.

Step 1: calculate the return on security using following formula:

$$\text{Return} = \frac{\text{Closing price} - \text{Opening price}}{\text{Opening price}} \times 100$$

Step 2: Calculate "Excess Return to Beta" Ratio for each stock under consideration

$$\text{Excess Return to Beta Ratio} = \frac{(R_i - R_f)}{\beta_i}$$

Where,

R_i = Expected return of security i

R_f = Return on a riskless asset

β_i = Expected change in the rate of return on security i associated with one unit change in the market return

Step 3: Rank the securities based on the excess return to beta ratio

Step 4: Calculate the cut of rate by using following formula. Highest cut off rate will be regarded as C^*

$$C_i = \frac{\sigma^2 m \sum_{i=1}^N \frac{(R_i - R_f) \beta_i}{\sigma^2 e_i}}{1 + \sigma^2 m \sum_{i=1}^N \frac{\beta_i^2}{\sigma^2 e_i}}$$

Where,

$\sigma^2 m$ = Variance of the market index

$\sigma^2 e_i$ = Variance of a security's movement that is not associated with the movement of market index i.e., stock's unsystematic risk

β_i = Systematic risk of the security

Step 5: The cumulated values of C_i start declining after a particular C_i and that point is taken as Cut-off point. If $(R_i - R_f)/\beta_i$ is greater than cut-off point, then the security will be included in portfolio.

Step 6: Calculate the proportion to be invested in each security

$$X_i = \frac{Z_i}{\sum_{i=1}^N Z_i}$$

Where,

$$Z_i = \frac{\beta_i}{\sigma^2 e_i} \left(\frac{R_i - R_f}{\beta_i} - C^* \right)$$

C^* is the cut off rate

Table 1: List of Companies listed in NSE

Sr. No.	Company Name
1	Reliance Industry
2	TCS
3	HDFC Bank
4	Infosys

Sr. No.	Company Name
5	HUL
6	ICICI Bank
7	Tata Steel
8	SBI
9	HDFC
10	Bharti Airtel
11	Kotak Mahindra Bank
12	ITC
13	Bajaj Finance
14	Nestle India
15	HCL Technologies
16	Power Grid Corporation
17	JSW Steel

Sr. No.	Company Name
18	Asian Paints
19	Wipro
20	Avenue Supermarts
21	Maruti Suzuki
22	Adani Transmission
23	L & T
24	Axis Bank
25	ONGC
26	Sun Pharma
27	Titan Company
28	Ultratech Cement
29	Adani Ports
30	NTPC

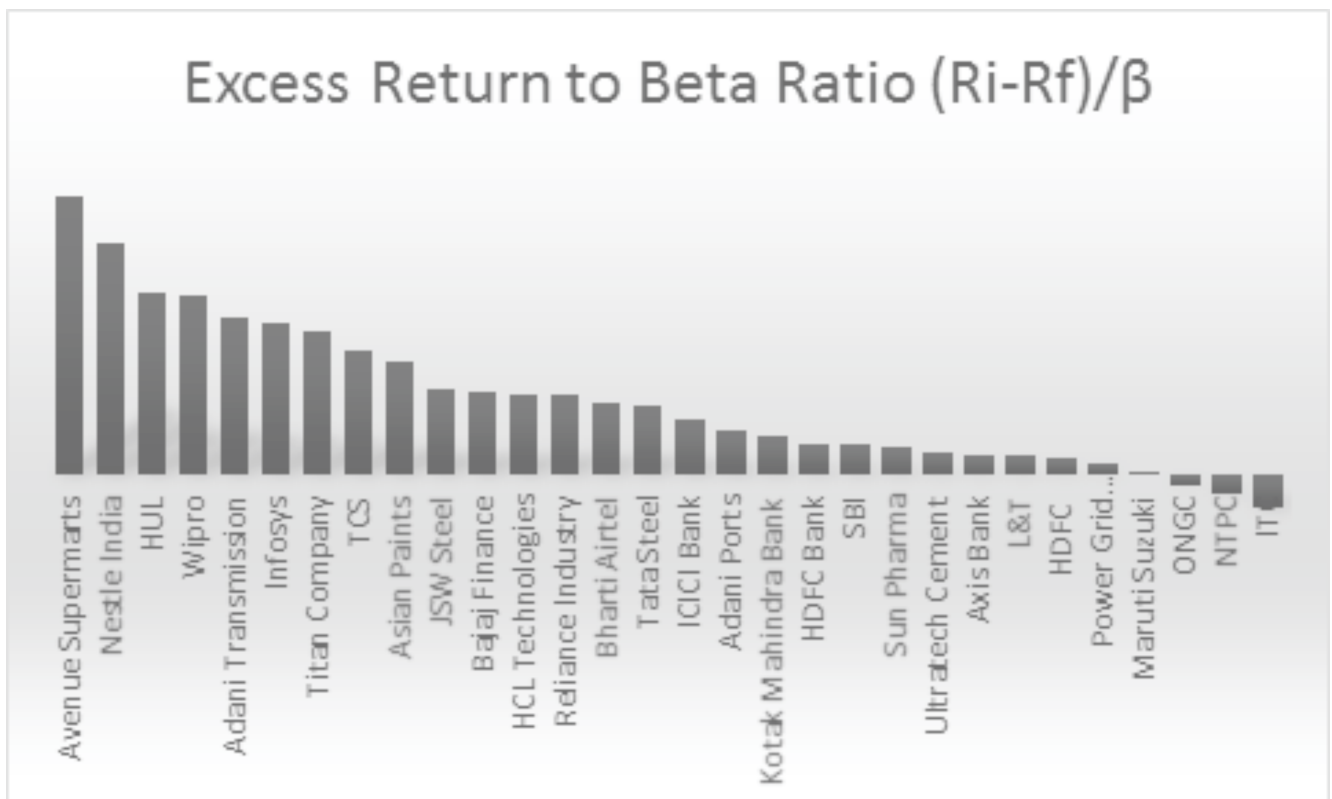
Table 2: Ranking of stocks based on “excess return to beta ratio”

Hence, $R_f = 7.177$ p.a. that is 0.59808 per month Variance of market index = 29.6303556

Securities	R_i	$R_i - R_f$	β	e_i^2	$(R_i - R_f)/\beta$	Rank
Reliance Industry	2.687947992	2.089867992	1.162145565	9.209718109	1.798284187	13
TCS	2.323305844	1.725225844	0.61826269	7.266953412	2.790441461	8
HDFC Bank	1.356066611	0.757986611	1.093696659	7.170454347	0.693050129	19
Infosys	2.712009973	2.113929973	0.611106122	7.269281526	3.459186378	6
HUL	1.530182233	0.932102233	0.227173533	6.203213934	4.103040617	3
ICICI Bank	2.282608124	1.684528124	1.328617783	9.528524841	1.267880158	16
Tata Steel	2.698630801	2.100550801	1.327323296	11.86270345	1.582546473	15
SBI	1.61620107	1.01812107	1.486281726	12.04753097	0.68501217	20
HDFC	1.041634012	0.443554012	1.130144867	7.635436668	0.392475359	25
Bharti Airtel	1.817952019	1.219872019	0.750280292	8.530526056	1.625888394	14
Kotak Mahindra Bank	1.440835275	0.842755275	0.942407696	7.989499614	0.894257632	18
ITC	0.057717448	0.540362552	0.73471526	6.914362203	-0.735472068	30
Bajaj Finance	3.940874674	3.342794674	1.801751871	13.50107317	1.855302457	11
Nestle India	1.801862023	1.203782023	0.229759595	5.448897374	5.239311216	2
HCL Technologies	2.15790478	1.55982478	0.852759039	8.467186458	1.829150685	12
Power Grid Corporation	0.717670346	0.119590346	0.498714738	5.735520009	0.239797096	26
JSW Steel	2.952877195	2.354797195	1.205269827	12.3018089	1.953751054	10
Asian Paints	1.944166465	1.346086465	0.520553139	6.73671038	2.585877145	9
Wipro	2.303983832	1.705903832	0.420615408	8.158625318	4.055733099	4
Avenue Supermarts	3.230855709	2.632775709	0.418419397	8.121458627	6.292193258	1
Maruti Suzuki	0.678583439	0.080503439	1.140564136	9.129434423	0.070582124	27

Adani Transmission	7.928332355	7.330252355	2.076632264	21.47917369	3.52987502	5
L & T	1.082073328	0.483993328	1.149861572	8.136663746	0.42091443	24
Axis Bank	1.267822664	0.669742664	1.486149363	10.18047064	0.450656361	23
ONGC	0.316587172	0.281492828	1.26569012	10.44926541	-0.222402643	28
Sun Pharma	1.022264357	0.424184357	0.66811181	9.337519397	0.634900253	21
Titan Company	3.313524056	2.715444056	0.841621055	9.131577809	3.226445013	7
Ultratech Cement	1.058701183	0.460621183	0.907387108	7.879316278	0.507634701	22
Adani Ports	1.928765853	1.330685853	1.290675619	9.755358885	1.03099945	17
NTPC	0.269453093	0.328626907	0.751902971	7.815558695	-0.437060259	29

Source: Monthly data for 5 years has been complied to year-on-year average.



INTERPRETATION:

The selection of any security is directly related to its “Excess Return to Beta Ratio.” Excess Return to Beta Ratio of the Avenue Supermarts has the highest. Nestle India has the second highest excess return to beta ratio. Avenue Supermarts has 6.2922 excess return to beta ratio. Nestle India has 5.2393 excess return to beta ratio. ITC has the lowest -0.7355 excess return to beta ratio.

Calculation of cut-off value (ci or c*)

Ci value for each company is calculated using the following formula:

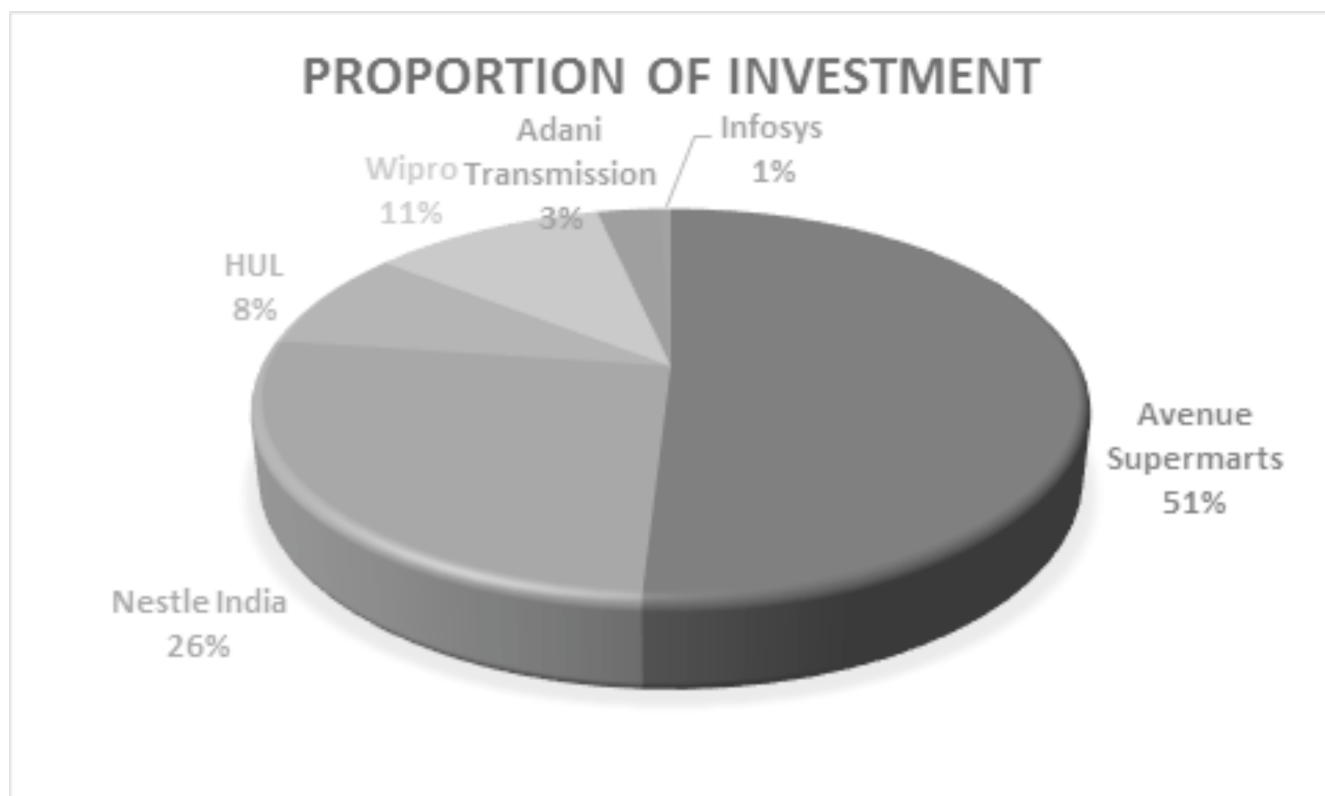
$$C_i = \frac{\sigma_m^2 \sum \frac{(R_i - R_f)\beta_i}{\sigma_{ei}^2}}{1 + \sigma_m^2 \sum \frac{\beta_i^2}{\sigma_{ei}^2}}$$

Securities	Excess Return to Beta Ratio ($R_i - R_f / \beta$)	e_i^2	β	$R_i - R_f$	$\Sigma (R_i - R_f) * \beta / e_i^2$	$\Sigma (\beta^2 i^2) / e_i^2$	$\beta^2 m (R_i - R_f) * \beta / e_i^2$	$1 + \beta^2 m (\beta^2 i^2) / e_i^2$	Cut-Off
Avenue Supermarts	6.292193258	8.121458627	0.418419397	2.632775709	0.135641204	0.021557063	4.019097102	1.63874343	2.45254811
Nestle India	5.239311216	5.448897374	0.229759595	1.203782023	0.186400183	0.031245164	5.523103714	1.925805326	2.867944979
HUL	4.103040617	6.203213934	0.227173533	0.932102233	0.220535546	0.039564693	6.534546649	2.172315909	3.008101456
Wipro	4.055733099	8.158625318	0.420615408	1.705903832	0.308482891	0.06124939	9.140457758	2.814841205	3.247237444
Adani Transmission	3.52987502	21.47917369	2.076632264	7.330252355	1.017180477	0.262020687	30.13941924	8.763766129	3.439094426
Infosys	3.459186378	7.269281526	0.611106122	2.113929973	1.194892063	0.313394498	35.40507673	10.28599041	3.442067835
Titan Company	3.226445013	9.131577809	0.841621055	2.715444056	1.445163696	0.390963349	42.82071421	12.58438305	3.40268681
TCS	2.790441461	7.266953412	0.61826269	1.725225844	1.591943606	0.443564313	47.16985516	14.14296831	3.335216067
Asian Paints	2.585877145	6.73671038	0.520553139	1.346086465	1.695957212	0.483788035	50.25181527	15.33481152	3.276976388
JSW Steel	1.953751054	12.3018089	1.205269827	2.354797195	1.926668486	0.601874356	57.08787237	18.83375121	3.031147207
Bajaj Finance	1.855302457	13.50107317	1.801751871	3.342794674	2.372772769	0.842322635	70.30610089	25.95831921	2.708422696
HCL Technologies	1.829150685	8.467186458	0.852759039	1.55982478	2.529868008	0.928206888	74.96088869	28.50310015	2.629920545
Reliance Industry	1.798284187	9.209718109	1.162145565	2.089867992	2.793581923	1.074854407	82.77482576	32.84831829	2.519910609
Bharti Airtel	1.625888394	8.530526056	0.750280292	1.219872019	2.900872602	1.140843364	85.95388674	34.80359455	2.469684176
Tata Steel	1.582546473	11.86270345	1.327323296	2.100550801	3.135904188	1.289358172	92.91795623	39.20414114	2.370105645
ICICI Bank	1.267880158	9.528524841	1.328617783	1.684528124	3.370787768	1.474615098	99.87764021	44.69336971	2.234730584
Adani Ports	1.03099945	9.755358885	1.290675619	1.330685853	3.546843186	1.645376991	105.0942249	49.75310534	2.112314883
Kotak Mahindra Bank	0.894257632	7.989499614	0.942407696	0.842755275	3.646251046	1.75653943	108.0397151	53.04688794	2.036683381
HDFC Bank	0.693050129	7.170454347	1.093696659	0.757986611	3.761865396	1.923359038	111.4654094	57.98981224	1.922155032
SBI	0.68501217	12.04753097	1.486281726	1.01812107	3.887469119	2.106718879	115.1870924	63.42282955	1.816177128
Sun Pharma	0.634900253	9.337519397	0.66811181	0.424184357	3.917820069	2.154523159	116.0864018	64.83928736	1.79037134
Ultratech Cement	0.507634701	7.879316278	0.907387108	0.460621183	3.970865499	2.25901844	117.6581568	67.93551967	1.731909277
Axis Bank	0.450656361	10.18047064	1.486149363	0.669742664	4.068634813	2.475967145	120.5550963	74.36378697	1.621153269
L&T	0.42091443	8.136663746	1.149861572	0.483993328	4.137032052	2.638463922	122.5817308	79.17862426	1.54816697
HDFC	0.392475359	7.635436668	1.130144867	0.443554012	4.202683868	2.8057402	124.5270175	84.13507984	1.48008438
Power Grid Corporation	0.239797096	5.735520009	0.498714738	0.119590346	4.213082484	2.849104426	124.8351322	85.41997729	1.461427831
Maruti Suzuki	0.070582124	9.129434423	1.140564136	0.080503439	4.223139989	2.991598089	125.1331396	89.64211519	1.395919087
ONGC	0.222402643	10.44926541	1.26569012	0.281492828	4.189043555	3.144907572	124.1228502	94.18472969	1.31786597

NTPC	0.437060259	7.815558695	0.751902971	0.328626907	4.157427703	3.217245085	123.1860612	96.32811592	1.278817301
ITC	0.735472068	6.914362203	0.73471526	0.540362552	4.100009159	3.295315411	121.4847293	98.64136745	1.231579939

Table 6: Showing determination of Absolute Proportion on Investment

Sr. No.	Company Name	Cut off	Zi	Wi
1	Avenue Supermarts	2.45254811	0.146839111	0.509161553
2	Nestle India	2.867944979	0.075783022	0.262776049
3	HUL	3.008101456	0.024206085	0.083934094
4	Wipro	3.247237444	0.031637323	0.109701758
5	Adani Transmission	3.439094426	0.008489304	0.029436484
6	Infosys	3.442067835	0.001439103	0.00499006



INTERPRETATION:

After applying Sharpe's Single Index Model to construct optimal portfolio above 6 companies are selected. The above chart shows that the investor made the proportion of investment to earn maximum return. It shows that investor made 51% investment in Avenue Supermarts, 26% in Nestle India, 11% in Wipro, 8% in Hindustan Unilever Ltd (HUL), 3% in Adani Transmission and last 1% in Infosys.

FINDINGS

Every investment has some level of risk. The return indicates the level of risk associated with an investment. From the above research, Adani Transmission has highest return, beta value, and unsystematic risk, which is 7.9283, 2.0766 and 21.4791 respectively. ITC has

0.0577 lowest return among all securities. HUL has the lowest beta value 0.2272 which indicates the low risk in security. Nestle India has the lowest unsystematic risk which is 5.4489. Avenue Supermarts has highest excess return to beta ratio 6.2922 and second highest Nestle India 5.239. ITC has the lowest excess return to beta ration -0.7355. Out of 30 companies only 6 companies are selected for optimum portfolio. 51% investment is made in Avenue Supermarts, 26% in Nestle India, 11% in Wipro, 8% in HUL, 3% in Adani Transmission and 1% in Infosys.

SUGGESTION

SIM has a severe drawback in that it is only true at one moment in time. The market's dynamism and unpredictability as time passes are not considered. The co-movement of security prices, according to this hypothesis, is only attributable to market movement. Some variables drive securities prices to move together that are not related to broad market and business situations, such as industry-specific considerations.

The equities from the Nifty 50 index are used in this analysis. Other diversified portfolios may be built using stocks from other similar indexes. Studies may be done to compare the returns and overall risk of two or more indexes, and judgments can be made based on the results. For investors who want to invest in global stock markets, stock market indices from two or more nations can be integrated to form efficient and diversified portfolios. Combining numerous portfolio models, such as the Markowitz Model, Sharpe's Single Index Model, and the Capital Asset Pricing Model, to create better and more efficient optimum portfolios, may be done more research.

CONCLUSION

Individual and institutional investors alike face difficulties when putting up an effective portfolio. Using Sharpe's single index approach, the research attempted to design an optimum portfolio. Sharpe's single index model is a useful and straightforward way of determining the best portfolio. In comparison to the Markowitz model, the technique employs fewer variables.

The best portfolio was constructed using 6 top stocks representing two significant sectors of the Indian economy in this study. The portfolio's performance was compared to that of the NIFTY Index from January 1, 2017, to March 31, 2022.

Sharpe single index model-based portfolios have beaten NIFTY returns. As a result, the stock developing portfolio is well worth investing in. However, only after evaluating all of the factors that impact stocks should a final investment choice be made. These might be broad economic factors or any other macro-economic factors that influence the movement of stock prices in the stock market.

BIBLIOGRAPHY

BOOKS

- Investment Analysis and Portfolio Management (By Frank Reilly and Keith Brown)
- Optimizing Corporate Portfolio Management: Aligning Investment Proposals with Organizational Strategy by Anand Sanwal
- Security Analysis and Portfolio Management (By Donald E. Fischer and Ronald J. Jordan)

REFERENCES

- Nandan, T., & Srivastava, N. (2017). Construction of optimal portfolio using sharpe's single index model: an empirical study on nifty 50 stocks. Journal of Management Research and Analysis, 4(2), 74-83.
- Nalini, R. (2014). Optimal Portfolio construction using Sharpe's Single Index Model-A study of selected stocks from BSE. International Journal of Advanced Research in Management and Social Sciences, 3(12), 72-93.
- Mandal, N. (2013). Sharpe's single index model and its application to construct optimal portfolio: an empirical study. Great Lake Herald, 7(1), 1-19.
- Subashree, M. S., & Bhoopa, D. M. (2017). Construction Of Optimal Portfolio Using Sharpe's Single Index Model-A Study With Reference To Banking And Automobile Sectors. Issn (Print), 2320-5504.
- Poornima, S., & Remesh, A. P. (2017). OPTIMAL PORTFOLIO CONSTRUCTION OF SELECTED STOCKS FROM NSE USING SHARPE'S SINGLE INDEX MODEL. Journal Homepage: <http://www.ijmra.us>, 7(12).
- Singh, S., & Gautam, J. (2014). The single index model & the construction of optimal portfolio: A case of banks listed on NSE India.

Risk governance & control: financial markets & institutions, 4(2), 110-115.

- Sarker, M. R. (2013). Markowitz portfolio model: evidence from Dhaka Stock Exchange in Bangladesh. *International Organization of Scientific Research Journal of Business and Management*, 8(6).
- Varadharajan, P. (2012). Construction of equity portfolio of large caps companies of selected sectors in India with reference to the Sharpe Index Model. *International Journal of Physical and Social Sciences*, 2(8), 37-50.
- Murthy, J. (2018). The construction of optimal portfolio using sharpe's single index model-an empirical study on nifty metal index. *Sumedha Journal of Management*, 7(1), 126-134.
- Mary, J. F., & Rathika, G. (2015). The single index model and the construction of optimal portfolio with cnxpharma scrip. *International Journal of Management*, 6(1), 87-96.
- Sen, K., & Fattawat, C. D. (2014). Sharpe's single index model and its application portfolio construction: an empirical study. *Global Journal of Finance and Management*, 6(6), 511-516.
- JOSHI, K., & PARMAR, D. C. APPLICATION OF MARKOWITZ MODEL IN INDIAN STOCK MARKET-REFERENCE TO BOMBAY STOCK EXCHANGE.
- Sathyapriya, M. (2016). Optimum Portfolio Construction Using Sharpe Index Model with Reference to Infrastructure sector and Pharmaceutical Sector. *International Journal of Scientific and Research Publications*, 6(8), 490-496.
- Archana, H. N., & Srilakshmi, D. (2020). Building an Optimal Portfolio Using Sharpe's Single Index Model: An Empirical Study With Reference To Indian Capital Markets. *Journal of Xi'an University of Architecture & Technology*, 12(8), 1233-1244.
- Kumar, S., & Bhatia, M. V. (2020). Construction Of Optimum Portfolio Using Sharpe's Single Index Model: With Reference To Pharmaceutical Sector And Banking Sector Listed On BSE. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(7), 10267-10274.

WEBSITES

- www.moneycontrol.com
- www.nseindia.com
- https://www.academia.edu/download/53813408/JMRA_42_74-83.pdf
- <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.663.254&rep=rep1&type=pdf>
- https://www.greatlakes.edu.in/pdf/Herald/HeraldBookWrapper_2013.pdf
- <https://scholar.archive.org/work/uwpqhur5qnf7c7jyfexqs5o64/access/wayback/http://www.apjor.com/downloads/0512201737.pdf>
- <https://www.academia.edu/download/55816126/IJMRA-13096.pdf>
- http://www.virtusinterpress.org/IMG/pdf/RGC__Volume_4_Issue_2_2014_Continued1.pdf#page=26
- <https://www.academia.edu/download/32138020/K0866873.pdf>
- <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.415.7309&rep=rep1&type=pdf>
- <https://search.proquest.com/openview/4778873d64daa24dc58056c73a7e085d/1?pq-origsite=gscholar&cbl=1936345>
- https://www.academia.edu/download/40873002/THE_SINGLE_INDEX_MODEL_AND_THE_CONSTRUCTION_OF_OPTIMAL_PORTFOLIO_WITH_CNXPHERMA_SCRIP-2.pdf
- http://www.ripublication.com/gjfm-spl/gjfmv6n6_04.pdf
- <http://researchjournal.gtu.ac.in/News/PAPER%20-%206.pdf>

MEASURING THE AWARENESS REGARDING ADVERTISING OF GOOGLE PRODUCTS AND SERVICES AND ITS INFLUENCE ON CONSUMER BUYING BEHAVIOUR IN NAVSARI



Drashti A.Patel: S.S. Agrawal College of Com.& Mgt,Navsari, drashti922@gmail.com

Shreyas K.Trivedi: Assistant Professor,S.S.Agrawal College of Com. & Mgt, Navsari, shreyastrivedi89@gmail.com

Introduction

As the world of marketing, it's very important to be in front of the eyes and minds of consumer so your product can be sold. Some brands are so much popular that we often consider it's as a product or process like Xerox. One such name is Google now days, its household name for many digital services. It will be very difficult to find a person who haven't heard name of it or not using its services. But as we see still Google is advertising heavily, then question is going to be arising why? There are many services of Google that people are not using or even heard of it. In this paper we are simply trying to find answer of that question.

Google is one brand that has no set group of target audiences. It caters to everyone with its product portfolio and manages to communicate precisely that, through its advertising. It's quite rare for a brand as big as Google who enjoys a close form of monopoly in specific segments, to advertise and too on such a large scale. For a brand, advertising may not be a solution only when we need to increase sales, it may have a deeper thought process attached. In the case of Google, it's a combination of brand recall and developing a deeper brand connection. If Google stopped analyzing their audiences and their performance, they wouldn't retain their top position and that's where the need for advertising comes through. On smart phones and tablets, the dominant form of content consumption is via apps and not via a mobile browser. The reason being, the experience of a web service via a native app is much better than on a mobile browser, and thereby most users shift to an app usage paradigm. So, even though Google might have a 97% market share in browser search, the whole concept of "search" itself may be changing and Google is not necessarily competing with a Bing or Yahoo in this new world but with apps satisfying a vertical need or category demand. So, whereas earlier a search for Restaurant for an evening-out with friends might have started with "Restaurant in South Delhi serving Chinese food" on desktop browser, today a user is more likely to do it via Zomato app while being on the move. Similarly, a query for "buy Samsung Galaxy Note 3" might have been easier to type on a desktop browser but on a touch

Smartphone, it's much more difficult to type and thus a user would prefer to open an Amazon or Flipkart mobile app and reach to Galaxy Note 3 via just 3-4 taps on small mobile screen (Home->Mobiles->Samsung->Note 3) since the experience is much more visual and faster. In this new world, Google is trying to in-build as many services as part of its search engine where Google gives us the best contextual information on our home screen based on our location, time of day and previous history information that it has on us using Google Search, Gmail, YouTube, Chrome, Google+ and Google Maps. It's all part of a product called "Google Now" which Google is integrating deep into Android and is part of Google's iOS search app which users would experience more and more going ahead. For instance, even though the Google search "Reunion" ad starts with a desktop experience of Google, it quickly shifts to a mobile only experience where the younger generation kids are firing up Google from their mobile devices and are also experiencing these newer integrated services such as flight information and weather in display card forms. Eventually, the idea is to tell users that Google will take care of all the information they need, whenever they want it, wherever they want it — they don't need to install or open that Weather or OTA (online travel agents) or maps app on their Smartphone. And hence, there is the need for advertisements right now as Android is starting to take off big time in India and a lot of these users are mobile-first users who've probably never used desktop in their lives. If these new users start their web journeys with vertical apps instead of Google, their chances of coming back to Google would be very difficult.

By advertising itself Google is actually trying to crack its biggest worry — that consumers would start using apps instead of Google's services to get to their destinations on mobile.

Keywords:

Advertisement, Google, Consumer Decision Making,

Literature Review

1. Ha, John, et al. (2011), in their research paper "The effects of advertising spending on brand loyalty in services" have

discovered that advertising spending has impact on consumer's perceived quality of the product, consumer's loyalty and satisfaction level.

2. Kumar and Raju (2013) in their paper "The Role of Advertising in Consumer Decision Making" have found that advertisements are able to change the consumer's opinion about a particular product.

3. Fatima and Lodhi revealed that Advertisement helps the company to create the awareness in their customers and ingredients of the advertisements shape the perception of the customers either in the positive or in a negative way. People can perceive the quality of the products by gathering the information which they usually get through advertisements. The perception of the quality, awareness of the product and consumer opinion drives the consumer buying decision. Study critically evaluates these factors which shape the buying behavior and provides the deep insights towards the role of advertisements shaping the consumer behavior.

4. Abayia and Khoshtinat explained that the impact of advertising for attracting the consumer, when the individual's mind is engaged with the considered product, positively affects their tendency to search for information which may lead to purchase decision.

5. Berkowitz, Allaway, et al. (2001) posited that over a period of time, the effect of different media platforms on consumers' memory varies. For instance, initially TV advertisements have a substantial impact on consumers' memory, but in the long term, it fades away. In contrast, a magazine initially has a low but persistent impact on consumers' memory because the readers can read a magazine at their own pace.

6. Farooq and Latif, 2011; Fill, 2009 posited that broadcast media such as TV and radio are among the popular media in India because of its mass reach. In India, newspapers play an important role as an effective medium of communication. This is due to its reach in almost every part of the country. Jayaraj, 2011, revealed India has the largest newspaper market in the world with over 330 million daily newspaper circulations. According to Statista, 2016, advertisers still prefer traditional mediums such as TV and print for advertisements. Pahwa, 2017, found that out of the total advertisement spend, TV advertisement spend in India was 44.7 per cent and print advertisement spend was 29.8 per cent. The digital advertisement spend was the third largest with a growth rate of 15.5 per cent. This is because of the increasing number of Internet users.

7. In the light of the varied influence of different media platforms, **Opeodu and Gbadebo (2017)** indicated that an advertisement on various media platforms plays a vital role in influencing consumer's choice. Hence, wise choice of media platform for advertisements is the key for the promotion of products and services (Singh, 2012).

8. Shrivastava (2014) posited that advertisements are a widely accepted source of information among the consumers as compared to other sources, and hence, media mix decisions are crucial for advertisers.

9. Various theories of Consumer Behavior posited that there is a relationship between advertisements and different stages of Consumer Behaviour. **Ranjbarian, Shaemi, and Jolodar (2011)** established that TV advertisements affect attention, interest and desire. **Nysveen and Breivik (2005)** stated that the effects of radio advertisements are less on changing consumers' attitude and behavior.

Marketers use different media vehicles to send across an engaging message to the targeted audience. **Ayanwale, Alimi, et al. (2005)** established that newspapers, magazines, radio, TV and outdoor are popular media among the marketers. However, Internet advertising is the current trend (Ducoffe, 1996).

In 2004, the amount spent for advertising on broadcast, cable TV and radio was 44 per cent, which was marginally higher than newspapers and magazines. This is because of the positive effect of TV commercials and online advertisements on consumers (Sadhasivam and Nithya Priya, 2015; Sorce and Dewitz, 2007). In contrast, Nayak and Shah (2015) opined that newspaper advertisements play a crucial role in creating a brand and it affects purchase decision (Purchase Decision). Raju and Devi (2012) conducted similar research and established that press advertisements are considered more trustworthy. Sorce and Dewitz (2007) found that magazine advertisements are more effective than that of TV. Pongiannan and Chinnasamy (2014) established empirical evidence for print media being the favorite medium among the advertisers. However, contradicting the prevailing notions, Trivedi (2017a) posited that viral advertisements do not have a direct impact on consumers' PI (purchase intention). Message process involvement and attitude towards the brand mediate the relationship between viral advertisements and Purchase Intention.

The aforesaid inferences state that media affects consumer behavior on various purchasing levels. The previous studies were restricted to either general impact of media (positive or negative)

or focused on measuring effects on brand awareness and Purchase Decision. In the twenty-first-century media revolution, consumers have more media options. Hence, more research needs to be conducted to measure the effects of media advertisements on various stages of Consumer Behavior. This facilitates advertisers to take the right media mix decisions.

Research Objective:

This research has been done from two perspectives:

Company perspective

The prime motives of the study from the business perspective are as follows:

- To understand advertising for business.
- To understand and explore different available mediums of advertising for businesses.
- To understand the suitability of various advertising mediums for Google products and services.
- To correlate the effectiveness of various advertisements with the choice of medium used.

Consumer perspective

Besides the business motives, the second part of the research is involved in getting acquainted with the consumer behavior with respect to various mediums of advertising. These are stated as follows:

- To analyze which medium of advertisement has more supremacy towards the buying behavior of the consumer.
- Preferences of people towards advertising on various mediums in Navsari.
- To understand the effect of age and occupation on consumer buying behavior for the same factor.

Research Methodology

- Research Design: Descriptive research design.
- The type of survey used here is Sample Survey.
- The Sampling Frame consists of respondents in various age groups and various occupations.
- A sample size of 100 respondents has been taken.
- The sampling method used in this research project is Non-Probabilistic Sampling that is Convenience Sampling.
- Data collection: Primary data will be from questionnaire and secondary data from internet and journals.
- The survey data has been collected from questionnaire sent

through the medium of Google Forms via online platform

1. DO YOU THINK GOOGLE NEEDS TO ADVERTISE ITSELF?

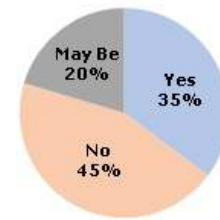


Figure 1: Showing the percentage of respondents who think that Google need to advertise or not?

2. MARK THE MEDIUM/S ON WHICH YOU HAVE SEEN ADVERTISEMENTS FOR GOOGLE PRODUCTS/SERVICES.

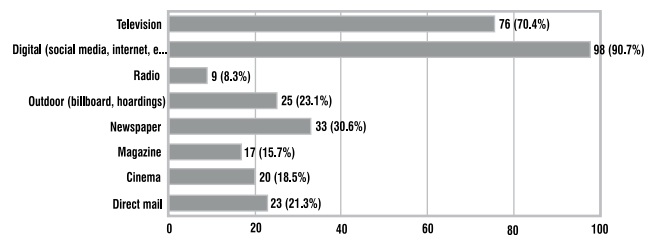


Figure 2: Showing the percentage of respondents who seen advertising on specific medium?

3. WHICH OF THE FOLLOWING GOOGLE ADVERTISING CAMPAIGNS ARE YOU AWARE ABOUT?

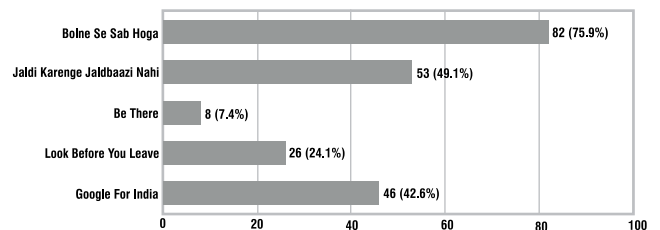


Figure 3: Showing the percentage of respondents who are aware about various advertising campaigns of Google.

4. DO THE ADVERTISEMENTS FOR GOOGLE PRODUCTS / SERVICES GRAB YOUR ATTENTION?

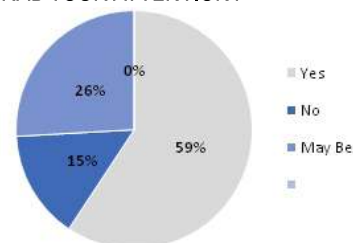


Figure 4: Showing the percentage of respondents who think that Google advertise grabbing attention or not?

5. WHICH FACTORS INFLUENCE YOU TO USE GOOGLE PRODUCTS/SERVICES?

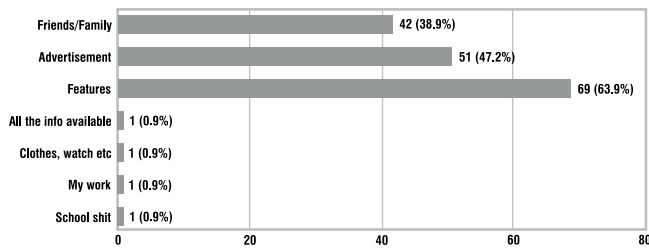


Figure 5: Showing the factors of influence to use Google service and product?

6. WHAT CATCHES YOUR ATTENTION IN THE ADVERTISEMENTS FOR GOOGLE?

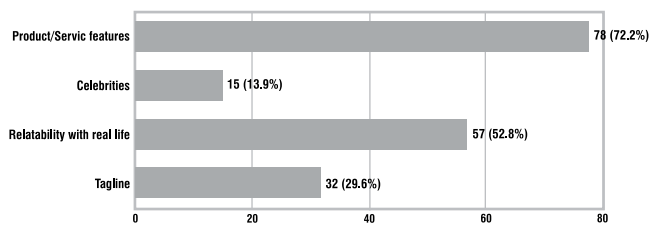


Figure 6: Showing the percentage who catch your attention in advertising?

7. RATE THE ADVERTISEMENTS FOR GOOGLE PRODUCTS / SERVICES ON DIFFERENT PLATFORMS USING THE FOLLOWING PARAMETERS. ADVERTISEMENTS FOR GOOGLE ARE:

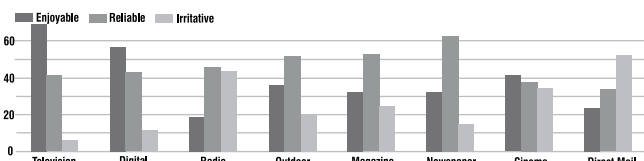


Figure 7: Showing the percentage of rating given to each of the given factors of the advertising medium

8. ADVERTISING ABOUT GOOGLE IS BENEFICIAL TO CONSUMERS BECAUSE IT PROVIDES IMPORTANT INFORMATION ABOUT ITS PRODUCTS/SERVICES". TO WHAT EXTENT DO YOU AGREE WITH THIS STATEMENT?

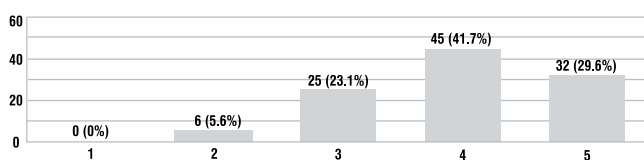


Figure 8: Showing the percentage of rating given to the particular statement.

9. HOW MUCH INFLUENCE DO YOU FEEL ADVERTISEMENTS FOR GOOGLE HAVE OVER YOUR BUYING BEHAVIOUR?

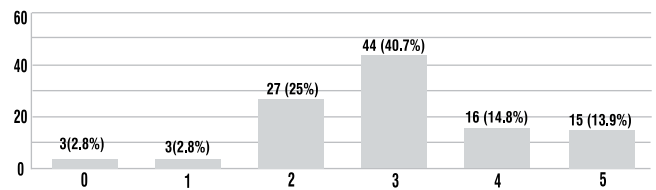


Figure 9: Showing the percentage of rating given to the influence of advertisement for Google on Consumer Buying Behavior.

Conclusion & Findings:

The main objective of this research is to measure the effectiveness of various advertising mediums on consumer buying behaviour. From the major findings, it can be concluded that, in Navsari:

1. The involvement of Google products/services is approximately 1 hour in respondent's daily activities.
2. The marketing reach of advertisements is high since most of the respondents are aware about them.
3. Google Search, Google Assistant and Google Pay have a wide market reach among the other most famous Google products/services.
4. The digital medium of advertising is the most prominent and effective advertising medium for Google, followed by television and newspaper medium.
5. "Bolne Se Sab Hoga" and "JaldiKarengJaldbaazi Nahi" are the most famous advertising campaigns of Google.
6. Advertisements for Google are effective in catching the viewer's attention.
7. Advertisements for Google provide accurate and authentic information.
8. The product/service features influence the respondents. Less number of respondents are influenced by advertisements for Google to use its product/service.
9. The digital medium of advertisement best reflects the lifestyle of the respondents.
10. Majority of the respondents are attentive to the product/service features shown in advertisement for Google.
11. Digital medium has been rated as the most enjoyable and reliable advertising medium.
12. Advertising about Google is significant as they provide information to the respondents, and the frequency of the advertisement has strong influence on their buying behavior.
13. Advertisements for Google have medium influence on

consumer buying behavior and have helped to change the opinions of many respondents.

14. Most respondents believe that Google doesn't need to advertise or improve its efforts for the same, showing that Google has good brand integrity.

15. Those that believe that Google needs to improve its efforts in advertising itself think that the advertisements need to be more creative and the target audience needs to be increased.

16. Age group and occupation-based analysis show variance in terms of product/service usage, but little variance in terms of effect of advertisement.

Bibliography

1. (PDF) impact of media advertisements on consumer behavior. ResearchGate. (n.d.). Retrieved January 13, 2022, from

https://www.researchgate.net/publication/331093806_Impact_of_Media_Advertisements_on_Consumer_Behaviour

2. Author, B. G. (2021, March 12). Why did Google make an ad for promoting search in India where it has over 97% market share? MediaNama. Retrieved January 20, 2022, from

<https://www.medianama.com/2013/11/223-why-did-google-make-an-ad-for-promotingsearch-in-india-where-it-has-over-97-market-share/>

3. Chawla, V. (2021, March 3). What's cooking inside Google Research Labs in India for AI? Analytics India Magazine. Retrieved January 12, 2022, from <https://analyticsindiamag.com/whats-cooking-inside-google-research-labs-in-india-for-ai/>

4. Deshpande M., Yash R., Darda P. S. - The Impact of Advertisement on Consumer Buying Behavior in Electronic Industry, International Journal of Scientific Development and Research, 2019, Volume: 04, Issue: 12.

5. Evolution, M. (n.d.). 6 advertising media channels: Importance and examples: Marketing evolution. 6 Advertising Media Channels: Importance and Examples | Marketing Evolution. Retrieved January 28, 2022, from <https://www.marketingevolution.com/marketing-essentials/advertising-media-guide>

6. Farooq, A. T. A. U., and Farooq, U. (2020, May 16). What are the types of advertising mediums? Marketing Tutor. Retrieved January 28, 2022, from <https://www.marketingtutor.net/types-of-advertising-mediums>

ICTACT Journal on Management Studies, 2018, Volume: 04,

Issue: 03.

7. Impact of media advertisements on consumer buying behavior.-sage journals. (n.d.). Retrieved February 06, 2022, from

<https://journals.sagepub.com/doi/full/10.1177/0973258618822624>

8. Khatri, B. (2019, January 24). Google becomes one of India's top advertisers with \$154 MN spent in 2018. Inc42 Media. Retrieved February 06, 2022, from <https://inc42.com/buzz/google-becomes-one-of-indias-top-advertisers-with-154-mnspent-in-2018/>

9. Online, B. W. (2021, November 18). Financialexpress. Google for India 2021: Sanjay Gupta, Google | The Financial Express. Retrieved January 12, 2022, from

<https://www.financialexpress.com/brandwagon/internet-has-become-the-most-criticalenabler-for-both-businesses-and-consumers-sanjay-gupta-google/>

10. Pahwa, A., and consultant, A. P. A. startup. (2021, July 15). Different types of advertising mediums. Feedough. Retrieved January 28, 2022, from <https://www.feedough.com/typesof-advertising-mediums/>

11. Rampton, J. (2018, November 15). Google spent \$213 million advertising its products in 2011. Search Engine Watch. Retrieved February 06, 2022, from

<https://www.searchenginewatch.com/2012/03/30/google-spent-213-million-advertisingits-products-in-2011/>

12. Samradni. (2021, June 3). Google advertising campaigns in India- 2020. The Marketing Empress. Retrieved February 06, 2022, from

<https://www.themarketingempress.com/post/google-advertising-campaigns-in-india-2020>

13. Singh, J., Tyagi, H. U. and G., Upadhyay, H., and Jitendra (2019, January 24). Google India spent over Rs 690 crore on promotional ads in FY18. Entrackr. Retrieved February

06, 2022, from <https://entrackr.com/2019/01/google-india-spending-ads-fy18/>

14. Sun, S. (2021, August 23). India: Computer Hardware Production Value 2014-2021. Statista. Retrieved January 12, 2022, from

<https://www.statista.com/statistics/637012/computer-hardware-production-value-india/>

15. Sunderaraj R. - Impact of Advertisement on Buying Behaviour

of Consumers in Sivakasi,

16. Tabie J., The impact of advertising on the consumer's buying behaviour, 2021.

17. Tashrifa Haider, S. S. (2018, April 26). A study on the influences of advertisement on consumer buying behavior. Business Studies Journal. Retrieved February 20, 2022, from

<https://www.abacademies.org/articles/a-study-on-the-influences-of-advertisement-onconsumer-buying-behavior-7177.html>

18. Thompson, A. (2019, February 13). Google's Mission Statement and vision statement (an analysis). Panmore Institute. Retrieved January 23, 2022, from <http://panmore.com/googlevision-statement-mission-statement>

19. Top 20 Google competitors and alternatives. Business Strategy Hub. (2022, March 9). Retrieved January 29, 2022, from <https://bstrategyhub.com/google-competitorsalternatives/>

20. Wikimedia Foundation. (2015, August 10). Alphabet Inc. Wikipedia. Retrieved January 23, 2022, from https://en.m.wikipedia.org/wiki/Alphabet_Inc

21. Wikimedia Foundation. (2022, April 12). Google. Wikipedia. Retrieved January 23, 2022, from <https://en.m.wikipedia.org/wiki/Google>

22. Yadav, S., Surti, S., Social Samosa, and Chakraverty, A. (2021, January 7). Brand saga: Google India's Quest of 'reuniting' humanity with heart-warming tales. Social Samosa. Retrieved February 06, 2022, from <https://www.socialsamosa.com/2021/01/brand-sagagooogle-india-advertising-journey/>

ENHANCING CUSTOMER SATISFACTION WITH THE PRACTICE OF CRM IN SELECTED PRIVATE BANKS OF VADODARA



Dr Rimple Gamadia: Assistant Professor, C K Shah Vijapurwala Institute of Management, Vadodara, rimple.gamadia@cksvim.edu.in

Abstract

In the present time the banking sector has confronted unadorned struggle for satisfying and retaining the customers. The study aims at finding the efforts given by the selected private banks to improve customer satisfaction which helps in improving customer loyalty and avoids switching off the banks by customers. The customers' switch off due to lack of services provided to them, no timeliness of services, quality of service provided, credit availability, and so on. So, to avoid dissatisfaction among customers this study focuses on the services provided, approach of employees towards customers, understanding customer expectation, meeting customer's complaints, etc. For this purpose, selected private banks namely HDFC bank, Axis Bank, ICICI bank and Kotak Mahindra bank of Vadodara city have been considered. The findings of the study include that with the implication of appropriate customer relationship management practices there can be less customer retention and more customer satisfaction in the private banks. Customer's trust can be attained by enhanced services and improved credibility provided to customers by the selected private banks in Vadodara city.

Keywords:

Customer Satisfaction, Customer Retention, Customer Relationship Management, Private banks.

Introduction

This is the era of considering customers as the rulers of the market. If customers are not satisfied, they can switch over from a particular product or service to another. And if we go through the banking services then there is an aggressive competition prevailing in the services provided specifically by the private banks. Therefore, to cope up with the prevailing market needs its very crucial to manage the customers. It's the need of the day to enhance the customers satisfaction and that can be derived with the implication of customer relationship management. According to Philip Kotler Customer Relationship Management is the technique of managing wide-range information about specific

customers and sensibly managing all the customer "touch points" with the aim of making the best use of customer loyalty. It can be rightly said that customer loyalty can be accomplished only after the customers are pleased with the services offered.

For all the banking institutions maintaining customer relationships are one of the requisite asset. With appropriate management of relationship with customers is helpful in improving interactions with potential customers. Customer relationship management (CRM) is helpful for managing financial transactions as well as for enhancing customers loyalty. With the effective utilization of technology banks can process all activities and communication with customers easily. When the customers feel valued and important and when their expectations are managed well then, we can say that the customers are satisfied and we can retain them by meeting their expectations. It is of great importance to anticipate and manage the expectation of our customers and enhance customer loyalty.

Literature Review

Anderson and Srinivasan (2003) A study conducted to understand the relation between e-satisfaction and e-loyalty. The study provides in its summary that satisfaction is a psychological state that results into e-satisfaction as the contentment of the customer with respect to his or her previous buying experience with a given electronic business organization. After reviewing the literature, it is defined that "E-satisfaction is the consequence of consumer perceptions of online accessibility, trust, security, customization, usability, easiness, price effectiveness and perceived value".

Jham, V. (2009) has found in his study that banking institutions in India are in the present time have succeeded in encouraging new services to its customers. The main emphasis of the study is to adopt internet banking by the existing customers of banks. The study includes an investigation of the factors that influence the customer's acceptance of internet banking services provided by the banks.

In a study conducted by **M. Rajeswari (2014)**, it is concluded

that banks must effectively handle both the credit risk associated with their entire portfolio and the risks associated with individual credits or transactions. Additionally, banks should take into account the connections between credit risks and other types of risks. The proficient management of credit risk plays a pivotal role in a comprehensive risk management strategy and is indispensable for the sustained prosperity of any banking institution.

Chandrasekaran Padmavathy(2015) is of the opinion that CRM has an effect on relationship quality, relationship maintenance, and relationship development. The learning of the study focuses on the effect of CRM on satisfaction, trust, retention and cross-buying. The effect of CRM results in specifically satisfying the customers; and the effect also has a positive outcome on gaining trust, retention and cross-buying of customers.

According to the research conducted by **Kundu and Datta (2015)**, it was discovered that there is a noteworthy correlation between e-service quality, customer satisfaction, and trust. The quality of e-services provided significantly affects the level of trust placed by customers, particularly in the context of internet banking. The study also highlighted that privacy and fulfilment are the primary factors contributing to service quality in internet banking, and these factors play a significant role in shaping customer trust. Consequently, banks should prioritize the safeguarding of individual transaction privacy to enhance customer trust.

Suresh Chandra Bihari and Shovita Mahapatra (2016), had observed in their study that customers prioritize the reliability dimension as the most important factor, followed by responsiveness and assurance. Tangibility, on the other hand, is the least emphasized dimension by customers. The study further revealed that certain attributes, such as the timeliness of service, the level of interest shown by bank employees in serving customers, care and concern, operating hours, as well as service charges and interest rates, play a crucial role in achieving high levels of customer satisfaction. These factors should be given significant consideration in order to effectively meet customer expectations.

Research Methodology

Objectives of the Study

1. To study the customer satisfaction in the selected private banks of Vadodara.
2. To study to CRM implication and its effect on customer satisfaction in selected private banks.

Hypotheses of the Study

H₀₁ There is no significant effect of CRM implication on customer satisfaction.

H₀₂ There is no significant effect of customer satisfaction on customer loyalty.

Sample Design & Data Collection

The data collected for the study are from primary as well as secondary sources. A structured questionnaire was used for collecting responses from the selected private banks customers with the help of convenient sampling method. The research involves 100 customers from selected private banks namely HDFC bank, AXIS bank, ICICI bank, and Kotak Mahindra bank. To prove the hypothesis, statistical tools like tabulation of data, percentage, mean, standard deviation and t-test has been applied for the study. The opinion of the respondents has been measured using Likert Scale.

Limitations of the Study

1. The study is limited to Vadodara city only and limited respondents are considered for the study.
2. The study involves only four private banks and the respondents are also limited.
3. The responses of customers may vary depending on their experience with the banks.
4. There are chances of having biased response from customers.

Data Analysis & Interpretation

Table 1: Number of transactions by customers of selected private banks

Responses	Percentage
Everyday	35.0
Once in a week	33.0
Once in 15 days	17.0
Once in a month	13.0
Rarely	2.0
Total	100.0

Source: Primary Data

Table 1 presents the demographic details for the study conducted. The above chart displays the number of transactions accomplished in a day, in a week, in 15 days and in a month by the customers of the selected private banks. So, it can be validated that maximum number that is 35% of the customers are

transacting with the banks every day.

Chart 1: Number of transactions by customers of selected private banks

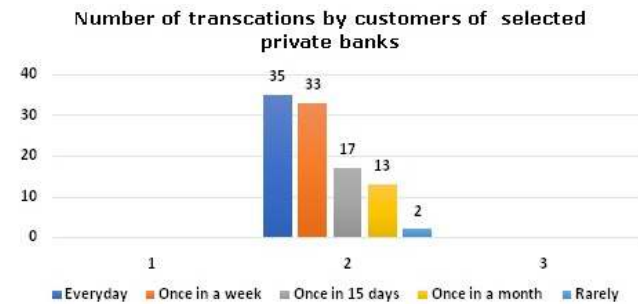


Table 2: Selected private Banks fulfils all customers' needs effectively

Responses	Percentage
Yes	83.0
No	17.0
Total	100.0

Source: Primary Data

Chart 2: Selected private Banks fulfils all customers' needs effectively

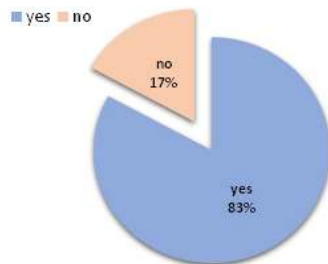


Table 2 represents that 83% of respondents are agreeing that banks fulfil all their needs effectively. So, it can be assumed that customers of the selected private banks are satisfied with the services provided by banks.

Table 3: Customer Satisfaction with the implication of CRM in selected private banks.

	Mean	Std. Deviation
Customers are provided personal attention	4.09	.911
Relationships with customers are given great value.	4.35	.845
Customers are duly satisfied objectives are fulfilled	4.05	1.077
Customer requirements are attended to within the office hours	3.79	1.149
Minimum time is consumed to complete one transaction	3.78	1.011
Customers' complaints are met immediately	4.09	1.016
Quick services are rendered	4.03	.937

Approach is customer friendly	4.27	.777
Fewer formalities are observed for rendering services	4.13	.812
Behavior of the officials is fair while dealing with customers complaints	4.28	.842
Promotional activities of attracting new customers and retaining old ones are effective	4.17	.865
Better competitor offerings are provided by bank	4.14	.779
New products and services are made aware to customers by the bank	3.92	1.002
Bank understands customer expectations	4.28	.817
Minimum time is consumed by bank for completing a transaction	4.34	.855
Bank helps to increase customization for services rendered	4.21	.820
Bank maintains customer database	4.57	.685
Bank provides proper interaction with internet banking facility	4.19	.861
Bank provides secure and safe CRM service	4.33	.711
CRM strategies fulfill customer needs and expectations	4.17	.739
Phone calls are answered immediately by the concerned person	4.25	.783
CRM system reduces rush in the bank	4.12	.913
More employees are employed by bank to solve system errors	3.72	1.026
Problems of customers relating to internet banking and online transaction are solved immediately	4.22	.746
Complaints and suggestions of customers are considered by bank	4.49	.628
CRM implementation helps to meet the interests of customers	4.39	.709
Customer satisfaction is primary responsibility of bank	4.54	.642
CRM implementation helps in solving customers problems	4.44	.701
CRM implementation helps in retaining customers	4.12	.891
CRM implementation helps in maintaining customers	4.12	.868
Data is protected by CRM implementation	4.07	.807
Quality of service is improved with CRM	3.93	.832
CRM helps in improving personalized banking	4.11	.920
Awareness is created relating new products and services with CRM	4.17	.697

Source: Primary Data

From the above table it can be interpreted that the selected banks are having CRM implication and are managing customers' expectations for enhancing customer loyalty. So, it can be said that the H01 is rejected here as customers are satisfied with the services of the selected private banks.

Table 2: Independent Samples test (T-Test) for identifying the Customer Satisfaction level in private banks.

	Levene's Test for Equality of Variances		Result
	F	Sig.	
Customers are provided personal attention	8.490	.004	Significant
Relationships with customers are given great value.	.048	.827	Not Significant
Customers are duly satisfied objectives are fulfilled	1.104	.295	Not Significant
Customer requirements are attended to within the office hours	.345	.558	Not Significant
Minimum time is consumed to complete one transaction	2.043	.154	Not Significant
Customers' complaints are met immediately	.456	.500	Not Significant
Quick services are rendered	2.250	.135	Not Significant
Approach is customer friendly	2.410	.122	Not Significant
Fewer formalities are observed for rendering services	7.633	.006	Significant
Behavior of the officials is fair while dealing with customers complaints	1.772	.185	Not Significant
Promotional activities of attracting new customers and retaining old ones are effective	.014	.905	Not Significant
Better competitor offerings are provided by bank	36.782	.000	Significant
New products and services are made aware to you by the bank	23.454	.000	Significant
Loans, FD's, Gold loan, and other services are provided instantly with clear terms and conditions	10.108	.002	Significant
Bank understands customer expectations	2.661	.104	Not Significant
Minimum time is consumed by bank for completing a transaction	.491	.484	Not Significant

Bank provides efficient ATM service	2.537	.113	Not Significant
Geographical location of ATM is appropriate	.603	.438	Not Significant
Bank provides statement periodically	1.346	.247	Not Significant
Bank helps to increase customization for services rendered	11.386	.001	Significant
Bank maintains customer database	12.616	.000	Significant
Bank provides proper interaction with internet banking facility	3.849	.051	Significant
Banking services are speedy in nature	1.847	.176	Not Significant
Online payment, discounts, and other services are efficiently provided by bank	8.713	.004	Significant
Bank provides secure and safe CRM service	4.782	.030	Significant
CRM strategies fulfil customer needs and expectations	9.824	.002	Significant

Source: Primary Data

In the study the t-test is conducted for independent variables and here the t-test value of CRM implication and customer satisfaction is less than 0.005% so the null hypothesis is rejected. And the objectives of the study are attained that selected private banks are implementing Customer Relationship Management and that is helping the banks in enhancing the customer satisfaction.

Findings of the Study

- It is clearly visible from the study that the selected private banks are satisfying the customers with effectively executing CRM activities.
- It is made clear that selected banks are securing and safeguarding the data of their customers.
- It is revealed from the study that banks are executing the CRM strategies for fulfilling the customer needs and expectations.
- It is found that the banks are having complaint nits and these units are working effectively for enhancing the customer satisfaction.
- It is evident from the study that the approach is customer

friendly in banks and that their requirements are met by the banks.

Conclusion

It can be concluded from the study that all the selected private sector banks are continuously in the process of satisfying the customer needs and requirements and expectations. All the banks are having very positive approach towards the customers for meeting with their complaints. Banks are putting in all efforts for providing all services as per the customization required by customers. The study is revolving around helping the customers enhance their satisfaction level through all the effective implication of customer relationship management.

Bibliography:

- From Marketing Mix to Relationship Marketing: Towards a Paradigm Shift in Marketing', *Management Decision*, no. 32(2), 1994, pp. 4—20.
- The Marketing Strategy Continuum: A Marketing Concept for the 1990s', *Management Decision*, no. 29(1), 1991, pp. 7—13.
- A study on customer relationship management practices in banking sector in India Volume 4, Issue 5 (May, 2015) Online ISSN- 2277-1166 Published by: Abhinav Publication Abhinav National Monthly Refereed Journal of Research in Commerce & Management Pg 24-28
- Anderson, H., & Jacobsen P. (2000). *Creating loyalty: Its strategic importance in your customer strategy*. Pp. 56-67, in S.A. Brown, ed., *Customer Relationship Management*, Ontario: John Wiley.
- Arokiasamy, A. (2005). The impact of customer satisfaction on customer loyalty and intentions to switch in the banking sector in Malaysia. *The Journal of Commerce*, 5 (1), 14-21.
- Ashraf, M., Hamyon, A., Khan, M. Jaafar, N., & Sulaiman, A. (2015). The impact of involvement in CRM initiative on interfunctional integration and organizational performance: Evidence from Pakistani enterprises. *Information Management and Business Review*, 7 (1), 29-40.
- Babatunde, B., & Ajayi, E. (2010). The relevance of customer relationship management in the Nigerian banking industry: A case study of International Bank Plc. *Information Management*, 12, 98-108.
- Bahrani, M., Ghorbani, M., & Arabzad, M. (2012). Information technology (IT) as an improvement tool for customer relationship management (CRM). *Procedia - Social and Behavioral Sciences*, 41, 59-64.
- Balakrishnan, M. & Els, L. (2008), 'Customer Relationship Management: Are Companies Getting Divorced from Reality?', 2008, Oxford Business & Economics Conference; St Hugh's College, Oxford, OBEC, UK.
- Berry, L.L. 'Relationship Marketing of Services — Growing Interest, Emerging Perspectives', *Journal of the Academy of Marketing Science*, Fall, 1995, pp. 236—45.
- G Shainesh, Jagdish N Sheth, *Customer Relationship Management a Strategic Perspective*, 2010, Macmillan Publishers India Limited.
- Ganesan S. 'Determination of Long-term Orientation in Buyer—Seller Relationships,' *Journal of Marketing*, no. 58, April 1994, pp. 1—19.
- George, W., & Manoj, P.K. (2013). Customer relationship management in banks: A comparative study of public and private sector banks in Kerala. *International Journal of Scientific Research*, 2(9), 246-49
- Gronroos, C. 'Relationship Approach to Marketing in Service Contexts: The Marketing and Organisational Behaviour Interface', *Journal of Business Research*, no. 20, January 1990, pp. 3—11.
- http://shodh.inflibnet.ac.in:8080/jspui/bitstream/123456789/4795/3/03_review_of_literature.pdf

- <https://www.researchgate.net/publication/311913355> Customer Satisfaction trends in Banking Industry- A Literature review
- International Journal of Marketing, Financial Services & Management Research Vol.1 Issue 11, November 2012, ISSN 2277 3622.
- Jagdish N Sheth, Atul Parvartiyar, G Shainesh, Customer Relationship Management Emerging Concepts, Tools and Applications, 2011, Tata McGraw Hill Education Private Limited.
- Jani, D., & Han, H. (2014). Personality, satisfaction, image, ambiance, and loyalty: Testing their relationships in the hotel industry. *International Journal of Hospitality Management*, 37(2), 11–20. <https://doi.org/10.1016/j.ijhm.2013.10.7>
- Jones, M. A., Beatty, S. E., & Mothersbaugh, D. L. (2000). Switching barriers and purchase intentions in services. *Journal of Retailing*, 76(2), 259–274. [https://doi.org/10.1016/S0022-4359\(0\)24-5](https://doi.org/10.1016/S0022-4359(0)24-5)
- Kangal, A. (2012). Identifying the dominant perspective on customer relationship management in the last decade 2000-2010. *Journal of Business Research*, 4 (4), 45-61.
- Kangu, M., Wanjau, K., & Kosimbei, G. (2017). Technology infrastructure: A customer relationship management dimension in maintaining customer loyalty. *International Journal of Economics, Commerce and Management*, V (5), 88-106.
- Kotler, Philip (1988), *Marketing Management*, Prentice Hall, Englewood Cliffs, New Jersey.
- Navimipour, N., & Soltani, Z. (2016). The impact of cost, technology acceptance and employees' satisfaction on the effectiveness of the electronic customer relationship management systems. *Computers in Human Behavior*, 55, 1052-1066.
- Noor, N. (2012). Trust and commitment: Do they influence e-customer relationship performance? *International Journal of Electronic Commerce Studies*, 3 (2), 281- 296.
- Shamini, H., & Ragel, V. (2018). The effectiveness of switching barriers on customer loyalty mediated with customer satisfaction: Telecommunication industry. *South Asian Journal of Social Studies and Economics*, 2(2), 1–9. <https://doi.org/10.9734/sajsse/2018/v2i225833>
- Singh, S., & Singh, A. (2016). Customer relationship management (CRM)- A statistical perspective. *International Journal of Current Research*, 8 (2), 26771-26776.
- Soliman, H. (2011). Customer relationship management and its relationship to the marketing performance. *International Journal of Business and Social Science*, 2 (10), 166-182.
- Spiros, P. (2005). Trust and commitment influences on customer retention: Insights from business-to-business services. *Journal of Business Research*, 58(2), 126–140. [https://doi.org/10.1016/S0148-2963\(3\)122-](https://doi.org/10.1016/S0148-2963(3)122-)
- Susanti, V., Sumarwan, S., Simanjuntak, M., & Yusuf, E. Z. (2020). Rational antecedent framework of brand satisfaction in the industrial market: assessing rational perceived quality and rational perceived value roles. *International Review of Management and Marketing*, 10 (1), 19–26. <https://doi.org/10.32479/irmm.9017>
- Wachira, J., & Were, S. (2016). Effect of customer relationship management on perceived organizational performance: A case study of family bank limited. *The Strategic Journal of Business and Change Management*, 3 (2/15), 321-343.
- Zikmund, W.G. and Babin, B.J., 2009. *Exploring Marketing Research*. 10th ed. Ohio: South-Western
- Zikmund, W.G., 2003. *Exploring Marketing Research*. 8th ed. Ohio: South-Western.

IMPACT OF DEMONETIZATION ON ADOPTION OF DIGITAL BANKING SERVICES IN INDIA: A STUDY ON THE RURAL AND URBAN AREA OF GUJARAT



Piyushkumar R. Maru: Assistant Professor, H. N. G. University, Patan piyushmaru27@gmail.com

Abstract

Demonetization is the act of removing a currency unit's legal tender status. It happens whenever the national currency changes. The current form or forms of money are removed from circulation and retired, frequently to be replaced by new notes or coins. A country's old currency is sometimes completely replaced by a new currency. The government of India, led by Prime Minister Narendra Modi, announced the withdrawal of 1000 and 500 rupee notes from circulation on November 8, 2016. The government also announced the issuance of new 500 and 2000 rupee notes in exchange for the demonetized notes. Even seven years later, the effects of demonetization can be seen in various sectors of the economy. This article discusses the benefits and drawbacks of demonetization in India, as well as a brief history of the process.

This study aims to analyze the studies related to the impact of demonetization on the usage of e-banking services. The government has taken measures to stop black money, corruption, terrorism, and fake currency notes in the economy. India is a cash-based economy. So fake currency is the biggest threat to India. In order to reduce the number of cashless transactions through the e-banking service and to control the steps that hinder it, the purpose of this study is to find out how much the e-banking service has increased or decreased through demonetization.

Keywords:

Demonetization, e-banking

Introduction

Demonetization is the act of changing existing currency into another form. Old notes will be replaced and replaced by the new currency. In other words, demonetization means either introducing new notes or coins of the same currency or completely replacing the old currency with the new currency, called demonetization, in which it is reinstated as a legal tender of payment. There are many reasons why governments decide to change their nation's currency. Some of the reasons are to fight

inflation, fight corruption and change the cash system in the country. In November 2016, the Indian government took a bold step to completely ban 500 and 1000 rupees. Currency notes accounted for 80% of the Indian economy. The government's main objectives behind the note ban were to eradicate counterfeit currency, combat tax evasion, destroy black money, reduce terrorist financing activities and encourage the country to move towards a cashless economy. This decision was for the welfare of the nation, but many questions are taken into consideration because of the decision to ban, the eradication of black money is primarily considered. The role of Digital India is key. He cites the weakness of the country's current currency and advocates replacing it with a new currency. Demonetization is an old concept, it has been used in the past by various countries and India to control the currency, and some of the steps taken have failed miserably.

What is demonetization?

Demonetization is the act of restoring a currency unit to its status as legal tender whenever it is converted into a national currency. The current form or forms of money are changed. Often replaced with new notes or coins. Sometimes, a country's old currency is completely replaced with a new currency. Demonetization is a process in which a particular currency is no longer valid after a specified date and a new currency is introduced in its place. Although this process takes time demonetization requires the full support of the people of that country as they face a lot of hardship. Take India as an example, there was a cash shortage in the country for a week, but the people of India supported and finally, the situation improved.

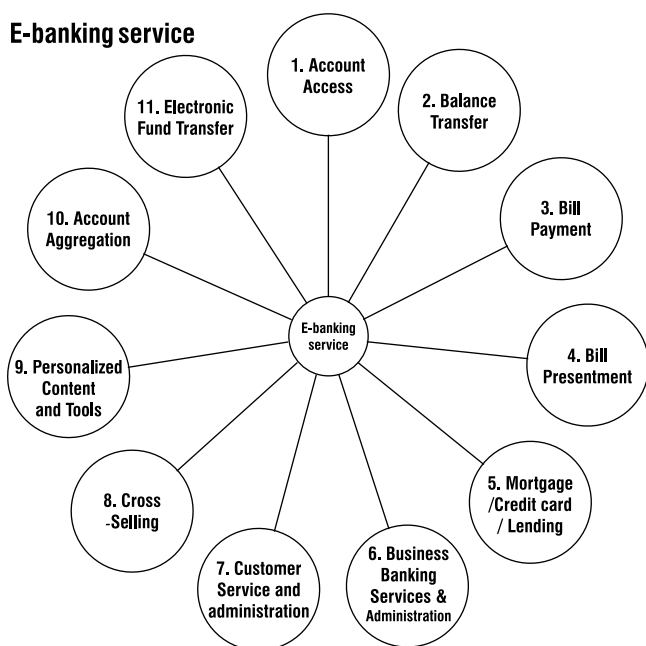
What is E-banking?

E-banking, also known as electronic banking, is a banking method in which customers conduct transactions electronically over the Internet. E-banking is a secure, quick, simple, and efficient electronic service that allows you to access your bank account and conduct online banking transactions 24 hours × 7 days. This service saves you time by allowing you to conduct

banking transactions from the comfort of your own home or office; all you need is internet access.

In this era of information technology, its impact is seen in many fields in countries around the world. This is a small baking area. You have made a huge impact on the Indian baking industry. Today's information technology booking service is known as an e-booking service.

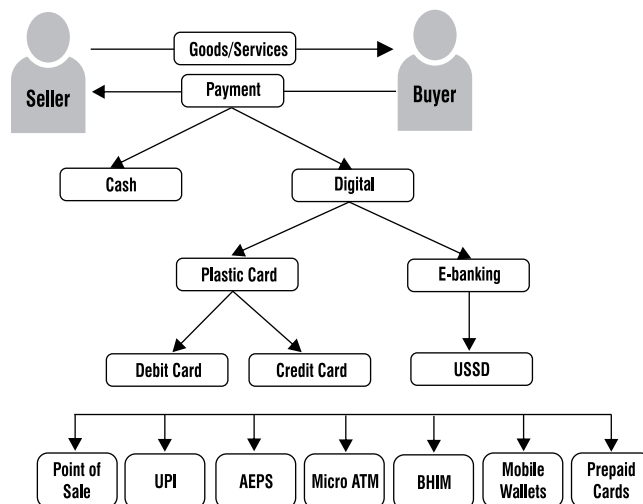
E-banking service



Types of E-banking

- **Real-Time Gross Settlement (RTGS):** This is the continuous (real-time) settlement of funds transfers on an order-by-order basis (without netting).
- **Electronic Clearing Service (ECS):** an electronic mode of payment/receipt for repetitive and periodic transactions. Institutions use ECS to make bulk payments for dividends, interest, salary, and pension distributions, among other things.
- **National electronic funds transfer (NEFT):** is a nationwide payment system that allows for one-to-one money transfers.
- **Pre-paid Payment Instruments (PPI):** These are payment instruments that enable the purchase of goods and services, as well as the transfer of funds, against the value stored on the instrument.
- **E-Wallet:** An e-Wallet is a type of electronic card that is used for online transactions using a computer or a smartphone. It serves the same purpose as a credit or debit card. To make payments, an E-wallet must be linked to the individual's bank account.

- **Unified Payments Interface (UPI):** A payment system that allows users to link multiple bank accounts in a single smartphone app and transfer funds without providing an IFSC code or account number.



History of Demonetization in India

• First demonetization

12 January 1946 After action in several foreign countries including France, Belgium, and the UK, the Government of India decided to demonetize high currency notes in January 1946. It is interesting that as early as April 7, 1945 suggested that similar action in India would provide a more concrete example for the Indian government to follow in its fight against black market money and tax revenue.

• Second demonization

On January 16, 1978, the Act was promulgated by Morarji Desai at eight o'clock for All India. The Act provided that on January 17, 1978, all banks and government treasuries were closed to all transactions other than preparation and presentation or receipt of compensation. 500 and Rs. 10000 was given less time of day to exchange.

• Third demonetization

In India on November 8 at 8:15 PM, Prime Minister Modi recently televised the country, announcing Rs. 500 and Rs. 1000 notes invalid, saying that the purpose was to prevent corruption and black money. Rs. 500 and Rs. People holding Rs 1000 notes were requested to deposit their bank and post office accounts from November 10 to December 30 only. Rs.100, Rs.50, Rs.20, Rs.10, Rs.5, Rs. All notes and all coins in the lower price of 2 are said to be valid. and Rs.2,000 and Rs.500 new note was introduced. Payment through other forms of currency exchange

such as DD, credit or debit cards etc. would not have been restricted. The total value of Rs.500 and Rs.1000 notes in this circulation is Rs.14.2 trillion, which is about 85% of the total value of a currency in circulation. This movement took everyone by surprise as it was a decisive decision and an unexpected one that was announced without any prior information.

Effect of demonetization in India

In a cash-based economy (about 78% of Indian consumer transactions are in cash), long, skating lines formed outside ATMs and banks, which were closed for a day. Various specifications including size and thickness of the new rupee notes were made, requiring ATM recalibration. Only 50% of the country's 2,000 ATMs were operational. The government's ban on 2Km daily withdrawals added to the problem, although the waiver of transaction fees helped a little.

The government claimed that these measures would reduce the recession in the economy and strictly control the use of illegal and counterfeit cash to curb illegal activity and terrorism. The sudden announcement led to a week-long cash shortage that created significant disruption to the economy as a whole, severely hampering economic output.

Prime Minister of India Narendra Modi made the announcement on 8 November 2016 at 9:00 Indian Standard Time via unscheduled live television. In the announcement, Modi announced that all 500 and 1000 notes of the Mahatma Gandhi series would become invalid, and Mahatma Gandhi would announce new 500 and 2000 banknotes of the new series to replace the old notes. The BSE Sensex and Nifty fell over 5 percent and stocks over 6 percent on the day after the ban (note announcement). In the days following the demonetization, the country faced severe shortages with severe knock-on effects across the economy. People seeking currency conversion at their banks stood in long queues. The move was also described as an effort to reduce corruption and smuggling. In the days following the demonetization, banks and ATMs across the country faced severe cash shortages.

Small businesses, agriculture, and transport were severely affected as people stood in long queues to exchange their notes, and many people died due to the inconvenience caused by exchanging cash. The move received support from some bankers and some international commentators. But it was heavily criticized by members of the opposition. This led to debates in both the Houses of Parliament and protests against the government in many places across India. This move reduced the

country's industrial production and its GDP growth rate.

By the end of August 2017, 99% of the banned currency was deposited in banks. About Rs, 14,000 crores of the total estimated capitalization currency were canceled. Analysts say these efforts are failing to eliminate black money from the economy.

The Government of India had registered two previous cases, once in 1946 and again in 1978. In both cases, the aim was to combat tax evasion through 'black money' kept outside the formal financial system. In 1946, the pre-independence government hoped that Indian businesses would be admitted as suppliers to world traders. In 1978, the Janata Party coalition government re-introduced banknotes of 1,000, 500, and 10,000 rupees in the hope of curbing counterfeit and black money.

Causes of Demonization in India

1. Tackling black money in the economy.
2. To reduce the volume of cash currency notes in the country's economy
3. To remove fake currency from the country.

Objectives of the study

The main objective of this study is to find out how demonetization affected the use of e-banking services. Its other secondary purposes are as below.

- To know whether e-banking services increased or decreased after the impact of demonetization.
- To know which medium is used by the customers from the various tools of e-banking service.
- To study the effect of e-banking service among the customers. To know the reasons for choosing an e-banking service.

Data Collection

This study's data collection is entirely based on primary sources. A questionnaire was used to collect information for this. A computer is used to create the online questionnaire. An online questionnaire was completed by 200 people for this study. This information has led to specific conclusions.

Findings

- This questionnaire has been filled by 200 respondents from different categories. There are 100 female respondents and 100 male respondents. Ritual age groups include 15-35 year olds and 35-45 year old warriors.

- In this study, 47% of the total respondents i.e. 94 respondents are students. 45 respondents which are 22.5% of the total who are employees. While 29 respondents who are businessmen. While 23 respondents who are housewives, 9 respondents are associated with other professions.
- Out of total 200 respondents, 189 respondents who are 94.5% of the total are aware of e-banking service while 11 respondents are not aware of e-banking service.
- Information about e-banking services is obtained through various means. Four factors are mainly taken into account in this study. According to this information can be obtained through friends, through advertisement, through internet, through family through these sources. Respondents who get information through internet from these media are 143 which is 71.54 of the total. In addition, 75 respondents received information through advertisement. While there are 28 respondents who get information through family.
- How many respondents use e-banking service of which 174 respondents who use e-banking while 26 respondents who do not use e-banking service. 13 respondents who are not using e-banking service. The reasons for which are lack of knowledge, they do not use it as it is unsafe from the point of view of security. Respondents use various e-banking service. Like NetBanking, E-Wallet, ATM. Card, Debit Card, Credit Card also uses other tools like UPI, BHIM, Forex card. Among these various tools, the most used by the respondent is ATM. / Debit card does. 87% of the total i.e. 174 respondents use it. Also net banking users are 115 while e-wallet users are 73 respondents. While there are 50 respondents using credit card and other tools.
- There is a question in the questionnaire asking how often the respondent uses the e-banking facility. Out of which 45 respondents who use e-banking service daily while 59 respondents use it weekly while 74 respondents who are 37% of the total respondents who use e-banking service together. There are various reasons for using e-banking services like time saving, 24 hours support and effect of demonetization out of these three reasons the most important factor is time saving.
- Out of total 161 respondents who use e-banking service due to time saving. While 104 respondents which is 2% of the total number who use e-banking facility due to 24 hours cooperation. While 40 respondents who use e-banking service due to demonetization (monetization).
- There are 119 respondents who used e-banking service before demonetization while 81 respondents who did not use e-banking service before demonetization. Out of these respondents 52 female respondents who used e-banking service before demonetization while 48 female respondents who did not use e-banking service.
- Out of 200 respondents, 87% i.e. 174 respondents said that there has been an increase in e-banking services after demonetisation. Out of which 100 are female respondents in which 88 female respondents believe that e-banking has changed after demonetization while 12 female respondents believe that demonetization has not affected e-banking services. There are 100 male respondents out of which 86 respondents say that e-banking services have increased after Jaio demonetisation. While 12 male respondents who say that there is no impact on e-banking service after demonetization while 2 male respondents who say that e-banking has decreased after demonetization.
- Out of 200 respondents 184 respondents are using e-banking service due to demonetization phase. While 16 respondents who were using e-banking service before demonetization.
- Demonetization has affected various sectors. In which 128 respondents out of 200 respondents believe that demonetization has affected the agriculture sector while 36 respondents believe that it has not affected the agriculture sector. Out of the total 200 respondents 138 respondents say that demonetization has affected the industrial system while 18 respondents who say Demonetization has not affected the industrial sector.
- 170 respondents out of 200 respondents feel safe to use banking service. While 30 respondents who do not think the use of e-banking service is safe. Similarly, out of 100 male respondents, 84 male respondents find the use of e-banking service safe, while 16 male respondents do not find the use of e-banking service safe.
- From the responses taken through the questionnaire, it can be said that there is an increase in e-banking services after demonetisation. Out of total 100 female respondents, 86 female respondents found using e-banking service to be safe. While 14 female respondents who do not feel safe using e-banking service.

Conclusion

In a country like India, it is necessary to provide diversified services to customers. Many people are aware of e-banking

services and also use them. After demonetisation, the use of e-banking services has become essential. When some users are not aware about it, the bank should take action on it. With the introduction of mobile phone and smart phone, its usage rate has also increased. E-banking is a non-changeable phenomenon. Which will accelerate more in the coming years due to the digitization of the Indian economy has moved towards cashless. So, e-banking service is getting stronger and stronger.

References

- Hindocha, M., & Pandya, J. K. (2019). The impact of demonetization on electronic fund transfers. IUP Journal of Bank Management, 18(2), 7-18.
- Kumar, K.A. & Suman, T.D., (2018). A Study on Impact of Demonetization on Ebanking in India, Journal of Emerging Technologies and Innovative Research 5(10), PP. 191-201.
- PawanKalyani (2016) “ An Empirical study of the Effects of Demonitization In India in the year (JMEIT)
- Roy Dutta, Mahasweta& Das, Arindam. (2018). Impact of demonetization on adoption of digital banking services in India: a case study in the rural and suburban area of West Bengal. Indian Journal of Economics and Development. 6. 1.
- Singhal, S.,(2017).Demonetization and E-banking in India, International Journal of New Technology and Research 3(1), pp. 20-25.
- Vanitha, S. &Maheshkumar, S., (2017). Impact of Demonetization on EBanking Services – A Study with Reference to Banks in Erode District, International Journal of Trend in Scientific Research and Development 2(1), pp.1443-1448.
- Dr, Vinoth & D, Dilip. (2022). Impact of Demonetization on Banking Services -An Empirical Study based on Customer Perspective.
- Piyush Kumar, Dr. Dhan. Shanker Chaubey. (2017). Demonetization and Its Impact on Adoption of Digital Payment: Opportunities, Issues and Challenges. Abhinav National Monthly Refereed Journal of Research in Commerce and Management, 6(6), 0–14.
- Mahajan, P., & Singla, A. (2017). Effect of Demonetization on Financial Inclusion in India. International Journal of Science Technology and Management, 6(01), 1282–1287.
- Srinivasan, G. U., Eakamaram, A., &Nesamani, V. (2017). Demonetization: Impact on Banking Sector. International Journal of Trend in Research and Development, 17–19.
- Roy Dutta, Mahasweta& Das, Arindam. (2018). Impact of demonetization on adoption of digital banking services in India: a case study in the rural and suburban area of West Bengal. Indian Journal of Economics and Development. 6. 1.

TITLE: RESTRUCTURING STRATEGIES OF INDIAN BANKS: A CASE STUDY ON NEWLY MERGED PUBLIC SECTOR BANKS



Dr. Bhaskar Biswas: Assistant Professor, Raja Rammohun Roy Mahavidyalaya. Radhanagar. Hooghly, bhaskarbiswas2011@gmail.com

Abstract

With a view to fight with these problems, increasing operating efficiency, exercise more control on banking operations. Government of India (GoI) has consolidated 10 **Public Sector Banks** into 4 banks. The Union **Finance Minister Nirmala Sitharaman** had made announcement of this mega-merger in 2019. However, RBI had notified it in the late March through its circular to merge banks in the new financial year (1st April 2020). The objective of the study is to check those strategies adopted for the newly mergers of the public sector banks and to find out whether strategies adopted for the newly mergers of the public sector banks are effective or not and helpful for the improvement of the performance of the merged entity. Secondary source is used to collect the required data for the research purpose. Here some newly merged public sector banks have been taken for the study. The banks are Punjab National Bank, Oriental Bank of Commerce, United Bank of India, Canara Bank, Syndicate bank, Andhra Bank, Corporation bank, Union bank of India, Indian Bank and Allahabad Bank. It can be concluded from the study that the financial condition of all the banks after merger is better than pre-merger financial condition. The null hypothesis is not rejected and the merger can be regarded as an accretive merger not dilutive merger.

Keywords

Business restructuring, Merger, Return on Equity, ROCE, Swap ratio

Introduction

The action of business restructuring has been taken by the business houses to modify its capital structure or its operations significantly. Generally, business restructuring happens when a company or business is passing through significant problems and is in the state of financial jeopardy. The process of business restructuring is considered truly important to count all financial extremity and enhance the company's performance. The operation of concerned marketable reality facing the financial crunches hires a financial and legal expert for monitory and

backing in the concession and the trade deals. generally, the concerned reality may look at debt backing, operations reduction, any portion of the company to interested investors. also, the need for a business restructuring arises due to the change in the power structure of a company. analogous change in the power structure of the company might be due to the cause of appropriation, junction, adverse profitable conditions, adverse changes in business analogous as buyouts, ruin, lack of integration between the divisions, over employed labour force, etc. There are two types of company restructuring i.e., financial restructuring and organizational restructuring. The Indian banking system is consisting of 12 public sector banks, 22 private sector banks, 46 foreign banks, 56 indigenous rural banks, 1485 public cooperative banks and 96,000 rural cooperative banks in addition to cooperative credit institutions. The public sector banks have some problems, the problems are mooted below:

Due to high charges and frequency of the trade system in utmost corridor of village India utmost of the rural branches of banks are running at a loss. The small branches of commercial banks are now faced with a new problem — a large quantum of overdue advances to ranchers. The verdict of the previous National Front Government to relinquish all loans to growers up to the value of Rs. 10,000 crores had added to the plight of similar banks. The Commercial banks at present don't have any ministry to ensure that their loans and advances are, in fact, going into productive use in the larger public interest. Due to a high proportion of non-performing means or outstanding due to banks from borrowers they are incurring huge losses. utmost of them is also unfit to maintain capital acceptability rate. As far as early payment to the precedence sectors are concerned, the progress has been slow. This is incompletely attributable to the fact that the bank officers from top to bottom could not accept nationalization gracefully, viz., and diversion of a certain portion of coffers to the top precedence and heretofore neglected sectors. This is also attributable to the poor and unsatisfactory loan recovery rates from the agrarian and small sectors. As far as deposit rallying is

concerned, Commercial banks have been facing stiff challenges from non-banking fiscal intermediaries similar as collective finances, casing finance corporations, leasing and investment companies. All these institutions contend nearly with commercial banks in attracting public deposits and offer advanced rates of interest than are paid by commercial banks. Foreign banks and the lower private sector banks have registered advanced increase in deposits. One reason seems to be that non-nationalized banks offer better client service. This creates the design that a diversion of deposits from the nationalized banks to other banks has presumably taken place. One major feebleness of the nationalized banking system in India is its disappointment to endure the asked credit pattern and fill in credit gaps in different sectors. Indeed, however there has been a reorientation of bank objects, the bank staff has remained nearly stationary and the bank procedures and practices have continued to remain old and outmoded. The post-nationalization period has seen a widening gap between pledge and performance. The main reason seems to be the failure of the bank staff to appreciate the new work gospel and new social objects. Another problem faced by the marketable banks is bureaucratization of the banking system. This is indeed the result of nationalization. The smooth functioning of banks has been hampered by red- tapism, long detainments, lack of action and failure to take quick decisions. The growing political pressures from the Centre and the States also disturbs smooth working of nationalized banks. Nationalized banks frequently face lots of difficulties due to colorful political pressures. Similar pressures are created in the selection of labor force and entitlement of loans to special persons without considering their creditworthiness. Government of India (GoI) had consolidated 10 Public Sector Banks into persons⁴ banks to fight with these problems, adding operating effectiveness, exercise more control on banking operations. The announcement of this mega-merger was made by Union Finance Minister Nirmala Sitharaman in 2019. still, RBI had notified it in the late March through its indirect to combine banks in the new fiscal time (1st April 2020). As per the finance minister, the junction would help to manage the capital more efficiently. The admixture of the PSBs is grounded on bad loans intensity and indigenous factors. After those combinations, the country will be having a aggregate of 12 public sector banks, including State Bank of India (SBI) and Bank of Baroda (BoB). This will affect in seven large public sector banks and five small banks. There were as numerous as 27 PSBs in 2017. As junction list of public sector banks in India the country second largest public sector bank Punjab National Bank will acquire Oriental Bank of Commerce, United Bank of India. Allahabad bank will combine

with Indian Bank and Syndicate bank will combine with Canara Bank. Union Bank of India will acquire Andhra Bank and Corporation Bank. In earlier days, all five accessories of State Bank of India they are State Bank of Bikaner and Jaipur (SBBJ), State Bank of Mysore (SBM), State Bank of Travancore (SBT), State Bank of Hyderabad (SBH) and State Bank of Patiala (SBP) and the Mahila Bank were intermingled with State Bank of India in 2015.

Literature Review

JAYADEV & SENSARMA (2007) anatomized some critical issues of connection in Indian banking with particular emphasis on the views of two important stake- holders viz. shareholders and directors. Firstly, they reviewed the trends in connection in global and Indian banking system and to ascertain the shareholders' views on present banking system, they conducted an event study analysis of bank stock returns which reveals that in the case of forced combinations, neither the endeavor nor the target banks' shareholders had served. But in the case of voluntary combinations, the endeavor banks' shareholders had gained further than those of the target banks. In malignancy of absence of any earnings to shareholders of endeavor banks, a check of bank directors explosively favors combinations and identifies the critical issues in a successful junction as the valuation of loan portfolio, integration of IT platforms, and issues of mortal resource operation. Eventually, they supported the view of the need for large banks by arguing that imminent challenges to banks similar as those posed by full convertibility, Basel- II terrain, fiscal addition, and need for large investment banks are the primary factors for driving further connection in the banking sector in India and other Asian husbandry.

KAUR & KAUR (2010) examined the cost effectiveness of Indian marketable banks by usingannon-parametric Data Net Analysis fashion. The cost effectiveness measures of banks are examined under both separate and common borders. That paper also empirically examined the impact of combinations on the cost effectiveness of banks that have been intermingled during post liberalization period. That study grounded on unstable panel data over the period 1990- 91 to 2007- 08. This paper tested the effectiveness differences between public and private both parametric and non-parametric tests are employed. The findings of that study suggested that over the entire study period average cost effectiveness of public sector banks set up to be 73.4 and for private sector banks is 76.3 percent. The findings of that paper suggested that to some extent junction programme had been successful in Indian banking sector. The Government and Policy

makers should not promote junction between strong and worried banks as a way to promote the interest of the depositors of worried banks, as it would have contrary effect upon the asset quality of the tougher banks.

LADHA (2017) gave models the idea of rule of reason of the antitrust literature and applies the model to dissect the possible connection of the Indian banking assiduity through junction and accession conditioning. That offered a strategic perspective for public sector banks whereby the banks either meet societal pretensions or come smart transnational players through combinations. India being an arising frugality, the banking assiduity faces two critical enterprise (i) visionary servicing of the pastoral areas and precedence sectors and (ii) a serious presence in the transnational requests to contend with larger global banks. The model developed in this composition suggests ways to estimate and examine combinations in the banking sector in India to support both these enterprises. It proposed that the government could use the trouble of junction to induce reticent public sector banks to meet the critical domestic docket and performance criteria. Those that meet the societal pretensions may continue to have the benefit of the status quo.

SINGH & DAS (2018) conducted to assess the impact of junction and accession conditioning on the performance of Banks in India. The paper reviewed the trends in merger and acquisition in Indian banking and also the impact of merger and acquisition had been studied in three leading banks of India. The study covered the area of performance evaluation of Merger and Acquisition in Indian banking sector during the period pre and post period of six times of Merger and Acquisition exertion. The paper studied the post-merger fiscal performance of intermingled banks with the help of fiscal parameters like, Net Profit margin, operating Profit margin, ROCE, Return on Equity, earnings per share, capital acceptability rate, tip per share etc. The findings of the study indicated that strategies and programs in procedural, physical and socio-artistic surrounds were veritably important factors in the post-merger and accession process. In addition, the qualitative impacts of the post-merger and acquisition conditioning similar as counting reports, request valuations and crucial snitch descriptions are enormous and vital to ameliorate the performance of the Bank and its capabilities. That study recommended that programs and strategies introduced by operation, for case the credit policy, should be re-visited in order to enhance internal and external operations, the logistical frame support should be bettered; a more comprehensive approach to integrated marketing dispatches blend should be put in place in

the creation of the Bank's being and added products as to gain further request share.

NISHAT & KHAN (2020) probed the effectiveness of the Indian Public Sector Undertaking (PSU) banks in the light of forthcoming combinations in the Indian banking sector. The paper reckoned bank effectiveness by using non-parametric Data Envelopment Analysis (DEA) fashion considering the original inputs- labors data and the data of academic combinations, considering non-performing assets (NPAs) as undesirable affair in both the cases. After calculating the effectiveness of the Indian PSU banks for junction and non-merger situations, Wilcoxon matched dyads inked- rank test had been applied to examine any significant change in the effectiveness situations of banks 'counting from combinations. The study revealed that only incorporating of banks might not be fruitful for perfecting the effectiveness of the Indian PSU banks and might not be sufficient for prostrating the challenges and pitfalls facing them. The directors of banks should put serious sweats for perfecting their effectiveness through better cooperation, understanding, effective application of common coffers and by enforcing better strategic opinions overall.

ROOPA & SHANKAR (2020) analyzed the financial performance of the 10 banks selected for the study using CAMELS Rating System. On August 30, 2019, Finance Minister of India unveiled a plan that will merge 10 public sector banks into 4 big banks. This would also result in bringing down the number of public sector banks from 27 to 12. That merger was expected to create fewer and stronger banks. The aim of that merger was to revive the Indian economy which has showed a GDP growth rate of around 4.5% in the second quarter of the financial year 2019-20. That paper pointed to learn the financials of all the 10 banks which would be merged in future using CAMELS Rating System which is an internationally predictable rating system.

Objective of the study:

The objective of the study is to check strategies adopted for the newly mergers of the public sector banks and to find out whether strategies adopted for the newly mergers of the public sector banks are effective or not and helpful for the improvement of the performance of the merged entity.

Research methodology:

Secondary sources of data have been used to collect the required data for the research purpose. Here some recently merged public sector banks have been taken for the study. The selected banks are Punjab National Bank, Oriental Bank of Commerce, United

Bank of India, Canara Bank, Syndicate bank, Andhra Bank, Corporation bank, Union bank of India, Indian Bank and Allahabad Bank. Data of these banks are collected from www.thehindubusinessline.com and moneycontrol.com. Data are collected for seven years from year 2015 to year 2021. The period has been selected due to the availability of data at the time writing research paper. Arithmetic mean has been used to get the average figure of banks before merger. For measuring performance Earnings per share, ROCE, Net Profit Margin, net interest margin, ROE have been used.

Analysis and interpretation

Table 1: Swap ratio of merger of Punjab National Bank, Oriental Bank of Commerce and United Bank of India

Punjab National Bank	Oriental Bank of Commerce
1150 equity shares	1000 equity shares
Punjab National Bank	United Bank of India
121 equity shares	1000 equity shares

Table 2: Swap ratio of merger of Canara Bank, Syndicate bank

Canara Bank	Syndicate bank
158 equity shares	1000 equity shares

Table 3: Swap ratio of merger of Andhra Bank, Corporation bank and Union bank of India

Union bank of India	Andhra Bank
330 equity shares	1000 equity shares
Union bank of India	Corporation bank
325 equity shares	1000 equity shares

Table 4: Swap ratio of merger of Indian Bank, Allahabad Bank

Indian Bank	Allahabad Bank
115 equity shares	1000 equity shares

Table 5: Financial parameters of the amalgamating banks (PNB, OBC, United Bank of India) and amalgamated bank (PNB)

Particulars	PNB	OBC	United Bank of India	Amalgamated Bank
Total business (in crores)	11,82,224	4,04,194	2,08,106	17,94,526
Gross advances (in crores)	5,06,194	1,71,549	73,123	7,50,867
Deposits (in crores)	6,76,030	2,32,645	1,34,983	10,43,659

CASA ratio	42.16%	29.40%	51.45%	40.52%
Domestic Branches	6992	2390	2055	11437
PCR	61.72%	56.53%	51.17%	59.59%
CET I ratio	6.21%	9.86%	10.14%	7.46%
CRAR ratio	9.73%	12.73%	13%	10.77%
Net NPA ratio	6.55%	5.93%	8.67%	6.61%
Employees	65,611	21,729	13,804	1,00,649
ATMS	8,358	2,625	2,017	13,000

Source: www.thehindubusinessline.com

Table 6: Financial parameters of the amalgamating banks (Union Bank of India, Andhra Bank, Corporation Bank) and amalgamated bank (Union Bank of India)

Particulars	United Bank of India	Andhra Bank	Corporation Bank	Amalgamated Bank
Total business (in crores)	7,41,307	3,98,511	3,19,616	14,59,434
Gross advances (in crores)	3,25,392	1,78,690	1,35,048	6,39,130
Deposits (in crores)	4,15,915	2,19,821	1,84,568	8,20,304
CASA ratio	36.10%	68.62%	66.60%	63.07%
Domestic Branches	4292	2885	2432	9609
PCR	58.27%	56.53%	51.17%	59.59%
CET I ratio	8.02%	8.43%	10.39%	8.63%
CRAR ratio	11.78%	13.69%	12.30%	12.39%
Net NPA ratio	6.85%	5.73%	5.71%	6.30%
Employees	37262	20346	17776	75384
ATMS				

Source: www.thehindubusinessline.com

Table 7 : Financial parameters of the amalgamating banks (Indian Bank, Allahabad Bank) and amalgamated bank (Indian Bank)

Particulars	Indian Bank	Allahabad Bank	Amalgamated Bank
Total business (in crores)	4,29,972	3,77,887	8,07,859
Gross advances (in crores)	1,87,896	1,63,552	3,51,448
Deposits (in crores)	2,42,076	2,14,335	4,56,411
CASA ratio	34.71%	49.49%	41.65%
Domestic Branches	2875	3229	6104
PCR	49.13%	74.15%	66.21%

CET I ratio	10.96%	9.65%	10.36%
CRAR ratio	13.21%	12.51%	12.89%
Net NPA ratio	3.75%	5.22%	4.39%
Employees	19604	23210	42814
ATMS			

Source: www.thehindubusinessline.com

Table8: Financial parameters of the amalgamating banks (Canara Bank, Syndicate Bank) and amalgamated bank (Canara Bank)

Particulars	Canara Bank	Syndicate Bank	Amalgamated Bank
Total business (in crores)	10,43,249	4,77,046	15,20,295
Gross advances (in crores)	4,44,216	2,17,149	6,61,365
Deposits (in crores)	5,99,033	2,59,897	8,58,930
CASA ratio	29.18%	32.58%	30.21%
Domestic Branches	6310	4032	10342
PCR	41.48%	48.83%	44.32%
CET I ratio	8.31%	9.65%	8.62%
CRAR ratio	11.90%	14.23%	12.63%
Net NPA ratio	5.37%	6.16%	5.62%
Employees	58350	31535	89885
ATMS			

Source: www.thehindubusinessline.com

Table9: Financial performance of pre-merger and post-merger of PSU Banks (PNB, OBC, United Bank of India)

Ratios	Punjab National Bank		United Bank of India	Oriental Bank of commerce
	Year 2021	Year 2020	Average from year 2015-2019	Average from year 2015-2019
Earnings per share	2.64	0.80	-2.918	-35.47
ROCE (%)	1.85	1.80	1.254	1.63
Net Profit Margin (%)	2.50	0.62	-8.50	-7.22
Net Interest Margin (X)	2.41	2.09	1.50	2.07
Return on Equity / Networth (%)	2.22	0.58	-7.63	-11.99

Source: moneycontrol.com

Table10: Financial performance of pre-merger and post-merger of PSU Banks (Union Bank of India, Andhra Bank, Corporation Bank)

Ratios	Union Bank		Andhra Bank	Corporation Bank
	Year 2021	Year 2020	Average from year 2015-2019	Average from year 2015-2019
Earnings per share	4.47	-13.45	-8.36	-11.74
ROCE (%)	1.85	1.70	2.04	1.646
Net Profit Margin (%)	4.22	-7.78	-5.154	-12.052
Net Interest Margin (X)	2.30	2.07	2.58	2.028
Return on Equity / Networth (%)	4.50	-9.46	-7.984	-14.95

Source: moneycontrol.com

Table11: Financial performance of pre-merger and post-merger of PSU Banks (Canara Bank, Syndicate Bank)

Ratios	Canara Bank		Syndicate Bank
	Year 2021	Year 2020	Average from year 2015-2019
Earnings per share	19.11	-23.55	-9.47
ROCE (%)	1.78	1.32	1.206
Net Profit Margin (%)	3.69	-4.56	-5.036
Net Interest Margin (X)	2.08	1.81	2.00
Return on Equity / Networth (%)	4.34	-6.78	-8.278

Source: moneycontrol.com

Table12: Financial performance of pre-merger and post-merger of PSU Banks (Indian Bank and Allahabad Bank)

Ratios	Indian Bank		Allahabad Bank
	Year 2021	Year 2020	Average from year 2015-2019
Earnings per share	27.88	16.38	-26.12
ROCE (%)	1.89	2.14	1.6
Net Profit Margin (%)	7.68	3.51	-16.108
Net Interest Margin (X)	2.50	2.45	2.306
Return on Equity / Networth (%)	11.88	3.94	-39.848

Source: moneycontrol.com

In the above table 1 to table 4 are showing the swap ratio of merger of different public sector banks in India. The swap ratio of Punjab National Bank and oriental Bank of Commerce is 1150 shares of Rs.2 each to 1000 shares of Rs.10 each and the swap

ratio of Punjab National Bank and United Bank of India is 121 shares of Rs.2 each to 1000 shares of Rs.10 each. Swap ratio of Canara Bank and Syndicate Bank is 158 shares of Rs.10 each to 1000 shares of Rs.10 each. The swap ratio of Union Bank and Andhra Bank is 330 shares of Rs.10 each to 1000 shares of Rs.10 each and the swap ratio of Union Bank and Corporation Bank is 325 shares of Rs.10 each to 1000 shares of Rs.10 each and lastly the swap ratio of Indian Bank and Allahabad Bank is 115 shares of Rs.10 each to 1000 shares of Rs.10 each. Table 5 to table 8 is showing the financial parameters of the amalgamating banks. Total business, Gross advances, Deposits, CASA Ratio, branches, provisioning coverage ratio (PCR), common equity tier 1 (CET I) ratio, net non-performing assets ratio, employees and ATMs are parameters. Based on these parameters the merged entity of Punjab National Bank has become the second largest, Canara Bank become the fourth largest bank, Union Bank become the fifth largest bank and the Indian Bank has become the sixth largest bank in India. State Bank of India still held the top position in the Indian banking sector. Table 9 to table 12 is showing the comparative financial performance of pre-merger and post-merger of newly merged PSU Banks. Table 9 showing comparison of financial performance of pre-merger and post-merger of Punjab National Bank and Oriental Bank of Commerce and United Bank of India. Where it is seen that average EPS from year 2015-2019 of United Bank of India (-2.918) and Oriental Bank of Commerce (-35.47) but EPS of Punjab National Bank was Re. 0.80 and Rs. 2.64 the return on capital employed (ROCE), net profit margin, net interest margin and return on equity have been increased in the post-merger than pre-merger. In case of Union Bank, Corporation Bank, Allahabad Bank the EPS of Union Bank in 2020 was decreased but in 2021 the EPS has increased than pre-merger average EPS from year 2015-2019 of Corporation Bank, Allahabad Bank. But ROCE of Union Bank in 2020 and 2021 was lower than average ROCE from year 2015-2019 of Andhra Bank but higher than that of Corporation Bank. Net Profit Margin (%), Net Interest Margin (X) and ROE of Union Bank are higher average from year 2015-2019 of Corporation Bank, Allahabad Bank. EPS, ROCE, net profit margin, net interest margin and ROE are of year 2021 of Canara Bank are higher than average from year 2015-2019 of Syndicate Bank. But in the year 2020 the ROCE, ROE and net interest margin of Canara Bank is higher than average from year 2015-2019 of Syndicate Bank. The EPS, ROCE, net profit margin, net interest margin and ROE are of year 2021 and 2020 of Indian Bank are higher than Allahabad Bank.

Conclusion:

It can be concluded from the above analysis that the financial condition of most of merged banks after merger is better pre-merger financial condition. It is observed from above research study that most of merged banks the performance has been improved in terms of profitability and earnings and in case of most of merger of banks the merger can be regarded as an accretive merger not dilutive merger. The accretive merger is a merger deal is said to be accretive if the acquiring firm's earnings per share (EPS) increase after the deal goes through. When it is decline it is dilutive merger. Also, the merger between public sector banks will reduce the number of banks from 27 to 12. In future it may be reduced to 4 or 5. It increases the probability of better control on banks by Reserve Bank of India. Also, the lesser number public sector banks also increase the financial performance over the financial performance of private sector banks.

References:

- Anand, M., & Singh, J. (2008). Impact of merger announcements on shareholders' wealth: Evidence from Indian private sector banks. *Vikalpa*, 33(1), 35-54.
- Jayadev, M., & Sensarma, R. (2007). Mergers in Indian banking: an analysis. *South Asian Journal of Management*.
- KAUR, B. P., & Kaur, G. (2010). Impact of mergers on the cost efficiency of Indian commercial banks.
- Kambar, P. S. (2019). A study on the consolidation and merger of public sector banks (PSB) in India: Issues and challenges. *International Journal of Social Science and Economic Research*, 4(6), 4326-4334.
- Kumar, S., & Gulati, R. (2010). Measuring efficiency, effectiveness and performance of Indian public sector banks. *International Journal of Productivity and Performance Management*.
- Ladha, R. S. (2017). Merger of public sector banks in India under the rule of reason. *Journal of Emerging Market Finance*, 16(3), 259-273. *Asian Journal of Business and Economics*, 3(5), 27-50.
- Mainrai, G., & Mohania, S. (2020). Post-Merger Changes in Public Sector Banks: A Case of National Bank Ltd. and Bank of Gujarat Ltd. *Prabandhan: Indian Journal of Management*, 13(4), 57-64.
- Nishat, S., & Khan, L. (2020). The Impact of Mega Mergers on the Efficiency of Indian PSU Banks. *IUP Journal of Business*

Strategy, 17(2), 21-33.

- Roopa, P., & Shankar, K. U. G. (2020). FINANCIAL STATEMENT ANALYSIS OF PUBLIC SECTOR BANKS SELECTED FOR MERGERS USING CAMELS RATING SYSTEM. *International Journal of Management (IJM)*, 11(10).
- Singh, S., & Das, S. (2018). Impact of post-merger and acquisition activities on the financial performance of banks: A study of Indian private sector and public sector banks. *RevistaEspacios Magazine*, 39(26), 25.
- Yadav, R. K., & Mohania, S. (2020). Merger of Public Sector Banks: A Case of Chennai Bank Ltd. and Bhopal Bank Ltd. *Prabandhan: Indian Journal of Management*, 13(2), 50-58.

Guidelines for Authors/Contributors

'SANKALPA': Journal of Management & Research, is an international level peer reviewed bi-annual (January - June and July-Dec.) Journal. Contribution of original high quality research papers, case studies, book reviews and interviews on Management and allied fields are invited. Papers are processed through a blind review by experts in the subject areas. Contributors are requested to adhere to the Guidelines mentioned below as manuscripts in other than prescribed or poor format shall not be considered:

Manuscript Preparation

- The research papers/ case-studies/ book reviews and interviews on Management and allied fields submitted must be original and unpublished work containing up-to-date practical information.
- Each paper should start with a brief **abstract of about 150 to 200 words and with 3-4 key-words, compulsorily.**
- Research Paper / Case Study length may be up to **maximum 5000 words only. (Up to 3000 words for Book Review).**
- **The manuscript should be prepared on standard 8.5"x11" paper (A4 size) with 1 inch margin on all four sides. Use of footnotes/ header/ super-script/ sub-script is strongly discouraged.**
- **The paper should be typed in MS word, with Arial 11 font size of the body. For headings/ sub-headings, Table/Graph/Chart/Diagram Titles, Arial 11 size fonts and bold should be used. Line spacing should be 1.5. Headings/ sub-headings should be in 'Sentence case' only (Please don't use Upper case for headings/ sub-headings). In the body of paper, bold / underline / italics should not be used, unless absolutely necessary. Label Tables/Figures/Graphs/ Diagrams numerically. (Eg. Table 1, Figure 1 etc.). Citation of Table/ Figure should be done with its label only. (Don't use 'From the above/ below figure....'). For Tables use Arial 11 font size and Line spacing 1.**
- The research paper should **start with an introduction and end with a conclusion** summarizing the findings of the paper, preferably. Conclusions should briefly answer the objectives of the study.
- It is strongly suggested that you have your **paper checked** with a competent colleague or professional for relevance of subject with reference to the **Journal Title, research angle, English language, syntax, grammar, etc.**

Literature Citation

- References should be cited in the style prescribed in the publication manual of the **American Psychological Association.**
- Indicate the position of the reference in the text within brackets by the **author's last name and the year of publication.** At the end of the text, references should be listed in the **alphabetical order** of the last names of the authors, under the heading **"Bibliography"**, at the end of the paper. **Please don't cite references as footnotes at the end of each page or through super-script/ sub-script in the paper.**
- **Examples of how the references are to be listed in 'Bibliography' are listed below :**
(Book): Joseph Hair Jr. F., Bush Robert P. and Orthinau David J. (2003), Marketing Research – Within a Changing Information Environment, New Delhi, Tata McGraw Hill Publishing Company Limited, Second Edition, pp. 542.
(Research Paper/article in a journal): Fornell C. (1992), National Customer Satisfaction Barometer- The Swedish Experience, Journal of Marketing, Vol. 56, No. 1, pp. 6-21.

Manuscript Submission

- The **title of the paper, writer's name, designation, name of the institute and university, mobile number and E-mail ID** should appear **only on the first page** along with title of the paper and should **not be repeated** anywhere else. Please mention your **Postal Address** where the journal should be posted, in case your paper gets selected for publication.
- For **interviews on Management and allied fields**, the interview can be conducted for CEOs, CFOs or Heads of Department, which has to be supported by audio and video aids. Further, a 'No Objection Certification' has to be undertaken from the interviewee as well as the head of the Company, declaring that they have no objection for the interview to be printed.
- All manuscript should be submitted in **only electronic form** to Email: **publications@cksvim.edu.in**

Publication Ethics And Plagiarism

- The responsibility for the subject matter and the views expressed in the papers published in the journal lie solely with the authors. **The Publication and Editorial team shall not be responsible for the mistakes of the authors.**
- **The Publication & Editorial Team, reserves the right to omit/delete/edit some, or part there of, of the research paper/ work submitted, if found necessary.**
- **Only original work, which is not considered in any other Journal, and has not been submitted to any other Journal, will be considered for publication in the Journal. Concurrent submissions to other publications or journals are viewed as serious breach of ethical and legal norms.**
- The Editor-in-Chief, the Editorial Team and Publisher are not responsible for authentication of the papers/ research work published in this journal. **The authors are solely responsible for any legal matter resulting out of violation of Copyright Act.**
- **The author should submit a scanned copy of the Declaration Form, duly signed by the author/s, alongwith the Paper, mentioning that the work is original in nature and has not been submitted elsewhere to any other Publication/ Journal concurrently (Declaration form is to be submitted alongwith the paper compulsorily).**
- **The Publisher / Institute/ Trust and Publication Team shall not be responsible for :**
 - Manuscripts e-mailed to any other E-mail address other than : **publications@cksvim.edu.in**
 - Plagiarism in research paper by the author.
 - Late receipt of research papers for a particular issue of Journal.
 - Acceptance / rejection / late printing of any research paper / case study / book review, without assigning any reason.
 - Any unintended mistake by the editorial, publication and printing team.

Guidelines for writing Case-Study

SANKALPA : Journal of Management & Research seeks to publish selected Case Studies in the areas of Management & Technology.

Editorial Criteria (Quick reference questions for case-writers)

The following points should be considered before submitting your case study :

- Present a balanced perspective, including contrast and comparisons.
- Take a 'neutral' stand (avoid biasing the readers)
- The case should provide 'currently useful generalizations'

Copyright & Permissions

Consent to Publish- Release form

Case-studies which includes data which is **not made public by the company must** include appropriate signed permissions from case protagonists e.g. CEO; company directors or any employee given authority by the organisation; or the person or persons under review, granting full permission to publish the case.

Defamation

If inaccurate, unsubstantiated or controversial statements are made about organizations or people in a submitted case, **CKSVIM** reserves the right to request changes to the text from the author or to reject the case prior to publication. However, SMJV, CKSVIM, GTU, Editorial Board or the printers shall not be responsible for any errors, whatsoever, committed by the authors of case studies.

Critiques and reviews of organizations, products and services are acceptable but comments must be constructive and must not :

- Expose groups or individuals to hatred, ridicule or contempt
- Cause them to be shunned or avoided
- Lower them in the estimation of right-thinking members of society generally
- Disparage them in their business, trade, office or profession

Originality

Case studies submitted should not have been published before in their current or substantially similar form, or be under consideration for publication in any other publication.

Permissions

Case studies submitted for publication are not an infringement of any existing copyright. For ease of dissemination and to ensure proper policing of use, case studies and contributions become the legal copyright of the publisher unless otherwise agreed.

Prior to article submission, authors should clear permission to use any content that has not been created by them.

Authors should not assume that any content which is freely available on the web is free touse. Authors should check the website for details of the copyright holder to seek permission for re-use.

Manuscript Requirements

We accept both short cases and longer in-depth case studies :

- Minimum & Maximum length- Cases must be no shorter than **1000** words and must not be longer than **5000** words, excluding Appendices, references and supplementary materials.
- **Teaching Notes** : All cases **must** include at least one page of discussion and assignment questions.
- **For other details on Manuscript Preparation, Literature Citation, Manuscript Submission & Publication Ethics / Plagiarism see ' Guidelines for Authors / Contributors'.**

Sankalpa : Journal of Management & Research

ADVERTISEMENT TARIFF

	Per issue	Annual (2 issues)	Per issue	Annual (2 issues)
	(Black & White)		(Colour)	
Back Cover	N.A.	N.A.	15,000/-	20,000/-
Inside Cover	N.A.	N.A.	10,000/-	15,000/-
Full Page	5,000/-	7,500/-	10,000/-	15,000/-

Mechanical Data

Overall size	28 x 22 cms
Print Area	18 x 25 cms

No. of Columns

Per Page	Two
Column size	23 x 8 cms

Please send your Subscription / Advertisement by email to library@cksvim.edu.in and print material with Demand Draft in favour of “**Shri Mahavira Jaina Vidyalaya Education Foundation**”, payable at Vadodara – 390004 (Gujarat) INDIA, to the following address:

Publishers:

**Shri Mahavira Jaina Vidyalaya Education Foundation (SMJV)'s
C K Shah Vijapurwala Institute of Management**



R. V. Desai Road, Pratpanagar, Vadodara – 390004
M : 9924556363 / 8238430536
E-Mail: mba@cksvim.edu.in, cksvim@gmail.com



NEW SUBSCRIPTION FORM (w.e.f September 2018)

To The Editor (Sankalpa),
C K Shah Vijapurwala Institute of Management,
R V Desai Road, Pratapnagar, Baroda- 390004 (Gujarat).
M : 9924556363 / 8238430536
Email: publications@cksvim.edu.in/ accountant@cksvim.edu.in

Date: _____

Dear Sir/Madam,

We wish to Subscribe /Renew our subscription of 'SANKALPA- Journal of Management & Research' for a period of _____ year.

Mode of Payment is as follows (SELECT ANY ONE):

1. Draft/ Cheque bearing No. _____, dated _____ for _____
Rs. _____, drawn in favour of 'C K Shah Vijapurwala Institute of Management', payable at 'Vadodara', is enclosed herewith.
2. **NEFT Payment**: BANK ACCOUNT NO.: 355101010110586, CURRENT ACCOUNT.
ACCOUNT HOLDER'S NAME : C. K. SHAH VIJAPURWALA INSTITUTE OF MANAGEMENT
BANK NAME : UNION BANK OF INDIA, PRATAPNAGAR BRANCH, DABHOI ROAD NAKA, PRATAPNAGAR,
VADODARA – 390 004. GUJARAT. INDIA
IFSC CODE : UBIN0535516 / MICR CODE : 390026004
3. For Overseas Client : (Details of Srl. No. 2) SWIFT Code: UBININBBIBR

SUBSCRIPTION RATES (w.e.f Jan 2017)

Category	One Year (2 Issues)	2 Years (4 issues)	3 years (6 issues) (BEST OFFER!!)
India	250	400	550
Overseas (by Airmail)	US\$ 50	US\$ 100	US\$ 150

Name of Person (Addressee) : _____

College / University / Company _____

Address : _____

Landmark: _____ City _____

State : _____ Country: _____ Pin: _____

Mob. No.: _____ Email: _____

Signature: _____

[illegible]

ACHIEVEMENTS @ CKSVIM



Most Innovative collage of the Year at LIAC 2023



LIAC Award 2023



MBA @ CKSVIM

TOP B-SCHOOL OF EXCELLENCE IN INDIA 2022
By CSR AWARD AT BUSINESS INDIA



Affiliated to GTU / SGGU



MBA, BBA, and B.Voc step on the ladder to success.

For more information, visit: <https://www.cksvim.edu.in>
or contact 99245 56363



Estd : 2009

SHRI MAHAVIRA JAINA VIDYALAYA EDUCATION FOUNDATION
C. K. Shah Vijapurwala Institute of Management



Shri Mahavir Jain Vidyalaya Campus, Near Goyagate Circle, R. V. Desai Road, Vadodara-390 004. (Guj) INDIA

Office : M: 82384-30536 M: 90990-63305 E: mba@cksvim.edu.in

Placement : M : 90990-63574 E : placement@cksvim.edu.in W : www.cksvim.edu.in

